Anthophyllite (200) 246 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[0	1	0]	(2	0	0)	(1	0	1)	9.250	5.077	1.82	74.1	90.0
[0	-1	1]	(2	0	0)	(0	1	1)	9.250	5.064	1.83	90.0	73.6
[0	-1	1]	(2	0	0)	(1	1	1)	9.250	4.885	1.89	74.7	73.6
[0	1	0]	(2	0	0)	(2	0	1)	9.250	4.586	2.02	60.3	90.0
[0	-1	1]	(2	0	0)	(2	1	1)	9.250	4.442	2.08	61.3	73.6
[0	-1	2]	(2	0	0)	(1	2	1)	9.250	4.416	2.09	76.2	59.5
[0	-1	2]	(2	0	0)	(2	2	1)	9.250	4.081	2.27	63.8	59.5
[0	1	0]	(2	0	0)	(3	0	1)	9.250	4.011	2.31	49.4	90.0
[0	-1	3]	(2	0	0)	(0	3	1)	9.250	3.954	2.34	90.0	48.5
[0	-1	-1]	(2	0	0)	(3	-1	1)	9.250	3.914	2.36	50.6	73.6
[0	-1	3]	(2	0	0)	(1	3	1)	9.250	3.867	2.39	77.9	48.5
[0	-1	2]	(2	0	0)	(3	2	1)	9.250	3.660	2.53	53.6	59.5
[0	-1	3]	(2	0	0)	(2	3	1)	9.250	3.636	2.54	66.9	48.5
[0	1	0]	(2	0	0)	(4	0	1)	9.250	3.479	2.66	41.2	90.0
[0	-1	1]	(2	0	0)	(4	1	1)	9.250	3.415	2.71	42.4	73.6
[0	-1	3]	(2	0	0)	(3	3	1)	9.250	3.329	2.78	57.3	48.5
[0	-1	2]	(2	0	0)	(4	2	1)	9.250	3.243	2.85	45.5	59.5
[0	1	0]	(2	0	0)	(5	0	1)	9.250	3.030	3.05	35.0	90.0
[0	-1	3]	(2	0	0)	(4	3	1)	9.250	3.005	3.08	49.5	48.5
[0	-1	1]	(2	0	0)	(5	1	1)	9.250	2.988	3.10	36.2	73.6
[0	-1	2]	(2	0	0)	(5	2	1)	9.250	2.870	3.22	39.1	59.5
[0	-1	3]	(2	0	0)	(5	3	1)	9.250	2.702	3.42	43.1	48.5
[0	1	0]	(2	0	0)	(6	0	1)	9.250	2.663	3.47	30.3	90.0
[0	1	0]	(2	0	0)	(0	0	2)	9.250	2.640	3.50	90.0	90.0
[0	-1	-1]	(2	0	0)	(6	-1	1)	9.250	2.634	3.51	31.3	73.6
[0	1	0]	(2	0	0)	(1	0	2)	9.250	2.614	3.54	81.9	90.0
[0	-2	1]	(2	0	0)	(1	1	2)	9.250	2.586	3.58	82.0	81.6
[0	-1	2]	(2	0	0)	(6	2	1)	9.250	2.552	3.62	34.1	59.5
[0	-2	-1]	(2	0	0)	(2	-1	2)	9.250	2.513	3.68	74.2	81.6
[0	-1	1]	(2	0	0)	(1	2	2)	9.250	2.509	3.69	82.2	73.6
[0	-1	3]	(2	0	0)	(6	3	1)	9.250	2.431	3.80	37.9	48.5
[0	1	0]	(2	0	0)	(3	0	2)	9.250	2.427	3.81	66.8	90.0
[0	-2	1]	(2	0	0)	(3	1	2)	9.250	2.405	3.85	67.0	81.6
[0	-2	3]	(2	0	0)	(1	3	2)	9.250	2.394	3.86	82.6	66.1
[0	1	0]	(2	0	0)	(7	0	1)	9.250	2.363	3.91	26.6	90.0
[0	-1	1]	(2	0	0)	(7	1	1)	9.250	2.343	3.95	27.6	73.6
[0	-1	1]	(2	0	0)	(3	2	2)	9.250	2.342	3.95	67.7	73.6
[0	-2	3]	(2	0	0)	(2	3	2)	9.250	2.336	3.96	75.4	66.1
[0	-2	1]	(2	0	0)	(4	1	2)	9.250	2.274	4.07	60.5	81.6
[0	-1	2]	(2	0	0)	(0	4	2)	9.250	2.274	4.07	90.0	59.5
[0	-1	-2]	(2	0	0)	(1	-4	2)	9.250	2.257	4.10	83.0	59.5
[0	-2	3]	(2	0	0)	(3	3	2)	9.250	2.248	4.11	68.6	66.1
[0	-2	3]	(2	0	0)	(4	3	2)	9.250	2.140	4.32	62.4	66.1
[0	-2	1]	(2	0	0)	(5	1	2)	9.250	2.134	4.34	54.8	81.6
[0	-1	2]	(2	0	0)	(3	4	2)	9.250	2.133	4.34	69.8	59.5
[0	1	0]	(2	0	0)	(8	0	1)	9.250	2.118	4.37	23.7	90.0
[0	-2	5]	(2	0	0)	(1	5	2)	9.250	2.111	4.38	83.4	53.6
[0	-1	1]	(2	0	0)	(8	1	1)	9.250	2.104	4.40	24.5	73.6

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Anthophyllite (200) 246 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[0	-1	1]	(2	0	0)	(5	2	2)	9.250	2.090	4.43	55.6	73.6
[0	-2	5]	(2	0	0)	(2	5	2)	9.250	2.071	4.47	77.1	53.6
[0	-1	2]	(2	0	0)	(8	2	1)	9.250	2.061	4.49	27.0	59.5
[0	-2	3]	(2	0	0)	(5	3	2)	9.250	2.022	4.57	56.9	66.1
[0	-2	5]	(2	0	0)	(3	5	2)	9.250	2.009	4.60	71.0	53.6
[0	-1	3]	(2	0	0)	(8	3	1)	9.250	1.996	4.63	30.3	48.5
[0	-2	1]	(2	0	0)	(6	1	2)	9.250	1.993	4.64	49.7	81.6
[0	-1	-3]	(2	0	0)	(1	-6	2)	9.250	1.966	4.71	83.9	48.5
[0	-1	-2]	(2	0	0)	(-5	-4	2)	9.250	1.937	4.77	58.4	59.5
[0	-2	5]	(2	0	0)	(4	5	2)	9.250	1.931	4.79	65.3	53.6
[0	1	0]	(2	0	0)	(9	0	1)	9.250	1.916	4.83	21.3	90.0
[0	-1	1]	(2	0	0)	(9	1	1)	9.250	1.905	4.86	22.1	73.6
[0	-2	3]	(2	0	0)	(6	3	2)	9.250	1.901	4.87	51.9	66.1
[0	-1	3]	(2	0	0)	(3	6	2)	9.250	1.883	4.91	72.2	48.5
[0	-1	2]	(2	0	0)	(9	2	1)	9.250	1.873	4.94	24.3	59.5
[0	1	0]	(2	0	0)	(7	0	2)	9.250	1.868	4.95	45.0	90.0
[0	-2	1]	(2	0	0)	(7	1	2)	9.250	1.858	4.98	45.3	81.6
[0	-2	5]	(2	0	0)	(5	5	2)	9.250	1.843	5.02	60.1	53.6
[0	-1	1]	(2	0	0)	(7	2	2)	9.250	1.828	5.06	46.2	73.6
[0	-1	3]	(2	0	0)	(9	3	1)	9.250	1.824	5.07	27.5	48.5
[0	-2	3]	(2	0	0)	(7	3	2)	9.250	1.782	5.19	47.6	66.1
[0	1	0]	(2	0	0)	(1	0	3)	9.250	1.752	5.28	84.6	90.0
[0	-3	1]	(2	0	0)	(0	1	3)	9.250	1.752	5.28	90.0	84.4
[0	-2	5]	(2	0	0)	(6	5	2)	9.250	1.750	5.29	55.4	53.6
[0	-3	1]	(2	0	0)	(1	1	3)	9.250	1.744	5.30	84.6	84.4
[0	-1	3]	(2	0	0)	(5	6	2)	9.250	1.744	5.30	61.9	48.5
[0	-2	1]	(2	0	0)	(8	1	2)	9.250	1.731	5.34	41.5	81.6
[0	1	0]	(2	0	0)	(2	0	3)	9.250	1.729	5.35	79.2	90.0
[0	-1	2]	(2	0	0)	(7	4	2)	9.250	1.724	5.37	49.3	59.5
[0	-3	1]	(2	0	0)	(2	1	3)	9.250	1.721	5.37	79.3	84.4
[0	-3	2]	(2	0	0)	(1	2	3)	9.250	1.719	5.38	84.7	78.9
[0	-3	1]	(2	0	0)	(-3	1	3)	9.250	1.685	5.49	74.1	84.4
[0	-1	1]	(2	0	0)	(1	3	3)	9.250	1.681	5.50	84.8	73.6
[0	-2	3]	(2	0	0)	(8	3	2)	9.250	1.670	5.54	43.8	66.1
[0	-1	1]	(2	0	0)	(2	3	3)	9.250	1.661	5.57	79.7	73.6
[0	-2	5]	(2	0	0)	(7	5	2)	9.250	1.656	5.59	51.2	53.6
[0	1	0]	(2	0	0)	(4	0	3)	9.250	1.645	5.62	69.2	90.0
[0	-3	1]	(2	0	0)	(4	1	3)	9.250	1.638	5.65	69.3	84.4
[0	-3	4]	(2	0	0)	(1	4	3)	9.250	1.631	5.67	84.9	68.5
[0	-2	1]	(2	0	0)	(9	1	2)	9.250	1.615	5.73	38.2	81.6
[0	-3	4]	(2	0	0)	(2	4	3)	9.250	1.613	5.74	80.0	68.5
[0	-1	1]	(2	0	0)	(9	2	2)	9.250	1.596	5.80	39.1	73.6
[0	1	0]	(2	0	0)	(5	0	3)	9.250	1.589	5.82	64.6	90.0
[0	-1	1]	(2	0	0)	(4	3	3)	9.250	1.586	5.83	69.9	73.6
[0	-3	1]	(2	0	0)	(5	1	3)	9.250	1.583	5.84	64.7	84.4
[0	-1	3]	(2	0	0)	(7	6	2)	9.250	1.583	5.84	53.2	48.5
[0	-3	4]	(2	0	0)	(3	4	3)	9.250	1.583	5.84	75.1	68.5
[0	-3	5]	(2	0	0)	(0	5	3)	9.250	1.579	5.86	90.0	63.8

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Anthophyllite (200) 246 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[0	-3	-5]	(2	0	0)	(1	-5	3)	9.250	1.574	5.88	85.1	63.8
[0	-2	3]	(2	0	0)	(9	3	2)	9.250	1.565	5.91	40.4	66.1
[0	-3	2]	(2	0	0)	(5	2	3)	9.250	1.565	5.91	65.0	78.9
[0	-2	5]	(2	0	0)	(8	5	2)	9.250	1.565	5.91	47.4	53.6
[0	-3	5]	(2	0	0)	(2	5	3)	9.250	1.557	5.94	80.3	63.8
[0	-3	4]	(2	0	0)	(4	4	3)	9.250	1.544	5.99	70.5	68.5
[0	-1	1]	(2	0	0)	(5	3	3)	9.250	1.536	6.02	65.5	73.6
[0	-3	5]	(2	0	0)	(3	5	3)	9.250	1.530	6.05	75.6	63.8
[0	-1	2]	(2	0	0)	(9	4	2)	9.250	1.525	6.07	42.1	59.5
[0	-3	1]	(2	0	0)	(6	1	3)	9.250	1.523	6.07	60.4	84.4
[0	-1	2]	(2	0	0)	(1	6	3)	9.250	1.511	6.12	85.3	59.5
[0	-3	2]	(2	0	0)	(6	2	3)	9.250	1.507	6.14	60.7	78.9
[0	-3	4]	(2	0	0)	(-5	4	3)	9.250	1.498	6.18	66.1	68.5
[0	-1	2]	(2	0	0)	(2	6	3)	9.250	1.496	6.18	80.7	59.5
[0	-3	5]	(2	0	0)	(4	5	3)	9.250	1.495	6.19	71.1	63.8
[0	-2	5]	(2	0	0)	(9	5	2)	9.250	1.477	6.26	44.1	53.6
[0	1	0]	(2	0	0)	(-7	0	3)	9.250	1.465	6.31	56.3	90.0
[0	-3	1]	(2	0	0)	(7	1	3)	9.250	1.460	6.34	56.5	84.4
[0	-3	5]	(2	0	0)	(5	5	3)	9.250	1.453	6.37	66.9	63.8
[0	-3	7]	(2	0	0)	(0	7	3)	9.250	1.450	6.38	90.0	55.5
[0	-3	4]	(2	0	0)	(6	4	3)	9.250	1.446	6.39	62.0	68.5
[0	-3	2]	(2	0	0)	(7	2	3)	9.250	1.446	6.40	56.8	78.9
[0	-3	7]	(2	0	0)	(1	7	3)	9.250	1.445	6.40	85.5	55.5
[0	-1	2]	(2	0	0)	(4	6	3)	9.250	1.440	6.42	71.9	59.5
[0	-3	7]	(2	0	0)	(2	7	3)	9.250	1.432	6.46	81.1	55.5
[0	-1	3]	(2	0	0)	(9	6	2)	9.250	1.425	6.49	46.1	48.5
[0	-1	1]	(2	0	0)	(7	3	3)	9.250	1.423	6.50	57.4	73.6
[0	-3	7]	(2	0	0)	(3	7	3)	9.250	1.411	6.55	76.8	55.5
[0	-3	5]	(2	0	0)	(6	5	3)	9.250	1.406	6.58	62.9	63.8
[0	-1	2]	(2	0	0)	(5	6	3)	9.250	1.403	6.59	67.7	59.5
[0	1	0]	(2	0	0)	(8	0	3)	9.250	1.401	6.60	52.7	90.0
[0	-3	1]	(2	0	0)	(8	1	3)	9.250	1.396	6.62	52.9	84.4
[0	-3	4]	(2	0	0)	(7	4	3)	9.250	1.392	6.64	58.2	68.5
[0	-3	2]	(2	0	0)	(8	2	3)	9.250	1.384	6.69	53.2	78.9
[0	-3	7]	(2	0	0)	(4	7	3)	9.250	1.383	6.69	72.6	55.5
[0	-3	8]	(2	0	0)	(1	8	3)	9.250	1.379	6.71	85.7	51.8
[0	-3	8]	(2	0	0)	(2	8	3)	9.250	1.368	6.76	81.5	51.8
[0	-1	1]	(2	0	0)	(8	3	3)	9.250	1.363	6.78	53.9	73.6
[0	-3	-8]	(2	0	0)	(-3	-8	3)	9.250	1.350	6.85	77.4	51.8
[0	-3	4]	(2	0	0)	(8	4	3)	9.250	1.337	6.92	54.7	68.5
[0	-3	1]	(2	0	0)	(9	1	3)	9.250	1.333	6.94	49.6	84.4
[0	-3	8]	(2	0	0)	(4	8	3)	9.250	1.325	6.98	73.3	51.8
[0	-3	2]	(2	0	0)	(9	2	3)	9.250	1.322	7.00	50.0	78.9
[0	1	0]	(2	0	0)	(1	0	-4)	9.250	1.317	7.03	85.9	90.0
[0	1	2]	(2	0	0)	(7	6	-3)	9.250	1.315	7.03	60.2	59.5
[0	-1	3]	(2	0	0)	(1	9	3)	9.250	1.315	7.04	85.9	48.5
[0	-4	1]	(2	0	0)	(1	1	4)	9.250	1.313	7.04	85.9	85.8
[0	-3	7]	(2	0	0)	(6	7	3)	9.250	1.312	7.05	64.8	55.5

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Anthophyllite (200) 246 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[0	-2	1]	(2	0	0)	(0	2	4)	9.250	1.306	7.08	90.0	81.6
[0	-1	-3]	(2	0	0)	(2	-9	3)	9.250	1.305	7.09	81.9	48.5
[0	-3	5]	(2	0	0)	(8	5	3)	9.250	1.304	7.09	55.7	63.8
[0	-4	1]	(2	0	0)	(2	1	4)	9.250	1.303	7.10	81.9	85.8
[0	-2	1]	(2	0	0)	(1	2	4)	9.250	1.303	7.10	86.0	81.6
[0	-3	8]	(2	0	0)	(5	8	3)	9.250	1.296	7.14	69.5	51.8
[0	1	0]	(2	0	0)	(3	0	4)	9.250	1.291	7.17	77.9	90.0
[0	-4	1]	(2	0	0)	(3	1	4)	9.250	1.287	7.18	77.9	85.8
[0	-4	3]	(2	0	0)	(1	3	4)	9.250	1.286	7.19	86.0	77.5
[0	-3	4]	(2	0	0)	(9	4	3)	9.250	1.281	7.22	51.5	68.5
[0	-2	1]	(2	0	0)	(3	2	4)	9.250	1.278	7.24	78.0	81.6
[0	-4	3]	(2	0	0)	(2	3	4)	9.250	1.277	7.25	82.1	77.5
[0	-3	7]	(2	0	0)	(7	7	3)	9.250	1.271	7.28	61.3	55.5
[0	-1	-3]	(2	0	0)	(-4	-9	3)	9.250	1.268	7.30	74.1	48.5
[0	-4	1]	(2	0	0)	(4	1	4)	9.250	1.266	7.31	74.1	85.8
[0	-4	3]	(2	0	0)	(3	3	4)	9.250	1.262	7.33	78.2	77.5
[0	-3	5]	(2	0	0)	(9	5	3)	9.250	1.252	7.39	52.5	63.8
[0	1	0]	(2	0	0)	(5	0	4)	9.250	1.243	7.44	70.4	90.0
[0	-1	3]	(2	0	0)	(5	9	3)	9.250	1.242	7.45	70.4	48.5
[0	-4	3]	(2	0	0)	(4	3	4)	9.250	1.242	7.45	74.4	77.5
[0	-4	1]	(2	0	0)	(5	1	4)	9.250	1.240	7.46	70.4	85.8
[0	-1	1]	(2	0	0)	(3	4	4)	9.250	1.240	7.46	78.4	73.6
[0	-4	5]	(2	0	0)	(1	5	4)	9.250	1.236	7.49	86.2	69.8
[0	-2	1]	(2	0	0)	(5	2	4)	9.250	1.231	7.51	70.6	81.6
[0	-3	7]	(2	0	0)	(8	7	3)	9.250	1.228	7.53	57.9	55.5
[0	-4	5]	(2	0	0)	(2	5	4)	9.250	1.228	7.54	82.4	69.8
[0	-3	8]	(2	0	0)	(7	8	3)	9.250	1.226	7.55	62.4	51.8
[0	-4	5]	(2	0	0)	(3	5	4)	9.250	1.214	7.62	78.6	69.8
[0	-4	1]	(2	0	0)	(6	1	4)	9.250	1.211	7.64	66.9	85.8
[0	-2	-3]	(2	0	0)	(1	-6	4)	9.250	1.205	7.68	86.3	66.1
[0	-1	1]	(2	0	0)	(5	4	4)	9.250	1.198	7.72	71.1	73.6
[0	-4	5]	(2	0	0)	(4	5	4)	9.250	1.196	7.73	75.0	69.8
[0	-4	3]	(2	0	0)	(6	3	4)	9.250	1.189	7.78	67.3	77.5
[0	-3	8]	(2	0	0)	(8	8	3)	9.250	1.187	7.79	59.1	51.8
[0	-3	7]	(2	0	0)	(9	7	3)	9.250	1.185	7.81	54.8	55.5
[0	-2	3]	(2	0	0)	(3	6	4)	9.250	1.185	7.81	78.9	66.1
[0	1	0]	(2	0	0)	(7	0	4)	9.250	1.181	7.83	63.5	90.0
[0	-1	3]	(2	0	0)	(7	9	3)	9.250	1.179	7.84	63.5	48.5
[0	-4	1]	(2	0	0)	(7	1	4)	9.250	1.178	7.85	63.5	85.8
[0	-4	5]	(2	0	0)	(5	5	4)	9.250	1.174	7.88	71.5	69.8
[0	-2	1]	(2	0	0)	(7	2	4)	9.250	1.171	7.90	63.7	81.6
[0	-4	7]	(2	0	0)	(1	7	4)	9.250	1.171	7.90	86.4	62.7
[0	-4	3]	(2	0	0)	(7	3	4)	9.250	1.158	7.98	64.0	77.5
[0	-4	7]	(2	0	0)	(3	7	4)	9.250	1.152	8.03	79.2	62.7
[0	-4	5]	(2	0	0)	(6	5	4)	9.250	1.149	8.05	68.1	69.8
[0	-3	8]	(2	0	0)	(9	8	3)	9.250	1.148	8.06	56.1	51.8
[0	-2	3]	(2	0	0)	(5	6	4)	9.250	1.148	8.06	71.9	66.1
[0	-1	3]	(2	0	0)	(8	9	3)	9.250	1.145	8.08	60.3	48.5

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Anthophyllite (200) 246 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[0	-4	1]	(2	0	0)	(8	1	4)	9.250	1.144	8.09	60.3	85.8
[0	-1	1]	(2	0	0)	(7	4	4)	9.250	1.142	8.10	64.4	73.6
[0	-4	7]	(2	0	0)	(4	7	4)	9.250	1.137	8.14	75.8	62.7
[0	-4	3]	(2	0	0)	(8	3	4)	9.250	1.126	8.22	60.9	77.5
[0	-4	7]	(2	0	0)	(5	7	4)	9.250	1.118	8.27	72.4	62.7
[0	-1	2]	(2	0	0)	(3	8	4)	9.250	1.118	8.27	79.6	59.5
[0	1	0]	(2	0	0)	(9	0	4)	9.250	1.111	8.33	57.3	90.0
[0	-4	1]	(2	0	0)	(9	1	4)	9.250	1.109	8.34	57.4	85.8
[0	-2	1]	(2	0	0)	(9	2	4)	9.250	1.102	8.39	57.6	81.6
[0	-2	3]	(2	0	0)	(7	6	4)	9.250	1.098	8.42	65.5	66.1
[0	-4	9]	(2	0	0)	(1	9	4)	9.250	1.098	8.43	86.6	56.4
[0	-4	7]	(2	0	0)	(6	7	4)	9.250	1.096	8.44	69.2	62.7
[0	-4	9]	(2	0	0)	(2	9	4)	9.250	1.092	8.47	83.2	56.4
[0	-4	3]	(2	0	0)	(9	3	4)	9.250	1.092	8.47	57.9	77.5
[0	-4	5]	(2	0	0)	(8	5	4)	9.250	1.092	8.47	61.8	69.8
[0	-1	2]	(2	0	0)	(5	8	4)	9.250	1.087	8.51	72.9	59.5
[0	-4	9]	(2	0	0)	(3	9	4)	9.250	1.083	8.54	79.9	56.4
[0	-1	1]	(2	0	0)	(9	4	4)	9.250	1.078	8.58	58.4	73.6
[0	-4	7]	(2	0	0)	(7	7	4)	9.250	1.072	8.63	66.1	62.7
[0	-4	9]	(2	0	0)	(4	9	4)	9.250	1.070	8.65	76.6	56.4
[0	-4	5]	(2	0	0)	(9	5	4)	9.250	1.061	8.72	58.9	69.8
[0	1	0]	(2	0	0)	(1	0	5)	9.250	1.054	8.77	86.7	90.0
[0	-4	9]	(2	0	0)	(5	9	4)	9.250	1.054	8.77	73.4	56.4
[0	-5	1]	(2	0	0)	(0	1	5)	9.250	1.054	8.77	90.0	86.6
[0	-5	-1]	(2	0	0)	(1	-1	5)	9.250	1.052	8.79	86.7	86.6
[0	1	0]	(2	0	0)	(2	0	5)	9.250	1.049	8.82	83.5	90.0
[0	-5	1]	(2	0	0)	(2	1	5)	9.250	1.047	8.83	83.5	86.6
[0	-5	2]	(2	0	0)	(1	2	5)	9.250	1.047	8.83	86.8	83.3
[0	-4	7]	(2	0	0)	(8	7	4)	9.250	1.046	8.84	63.1	62.7
[0	-1	2]	(2	0	0)	(7	8	4)	9.250	1.044	8.86	66.7	59.5
[0	-5	2]	(2	0	0)	(2	2	5)	9.250	1.042	8.88	83.5	83.3
[0	-2	3]	(2	0	0)	(9	6	4)	9.250	1.041	8.89	59.6	66.1
[0	1	0]	(2	0	0)	(3	0	5)	9.250	1.041	8.89	80.3	90.0
[0	-5	3]	(2	0	0)	(0	3	5)	9.250	1.040	8.90	90.0	80.0
[0	-5	1]	(2	0	0)	(3	1	5)	9.250	1.039	8.90	80.3	86.6
[0	-5	3]	(2	0	0)	(1	3	5)	9.250	1.038	8.91	86.8	80.0
[0	-4	9]	(2	0	0)	(6	9	4)	9.250	1.036	8.93	70.4	56.4
[0	-5	2]	(2	0	0)	(3	2	5)	9.250	1.034	8.95	80.3	83.3
[0	-5	3]	(2	0	0)	(2	3	5)	9.250	1.033	8.95	83.6	80.0
[0	1	0]	(2	0	0)	(4	0	5)	9.250	1.030	8.98	77.1	90.0
[0	-5	1]	(2	0	0)	(4	1	5)	9.250	1.028	9.00	77.2	86.6
[0	-5	4]	(2	0	0)	(1	4	5)	9.250	1.026	9.01	86.8	76.7
[0	-5	3]	(2	0	0)	(3	3	5)	9.250	1.025	9.02	80.4	80.0
[0	-5	2]	(2	0	0)	(4	2	5)	9.250	1.023	9.04	77.2	83.3
[0	-5	4]	(2	0	0)	(2	4	5)	9.250	1.021	9.06	83.7	76.7
[0	-4	9]	(2	0	0)	(7	9	4)	9.250	1.015	9.11	67.4	56.4
[0	-5	3]	(2	0	0)	(4	3	5)	9.250	1.015	9.12	77.3	80.0
[0	-5	1]	(2	0	0)	(5	1	5)	9.250	1.014	9.12	74.1	86.6

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Anthophyllite (200) 246 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[0	-5	4]	(2	0	0)	(3	4	5)	9.250	1.014	9.12	80.5	76.7
[0	-1	1]	(2	0	0)	(1	5	5)	9.250	1.011	9.15	86.9	73.6
[0	-5	2]	(2	0	0)	(5	2	5)	9.250	1.009	9.17	74.2	83.3
[0	-1	1]	(2	0	0)	(2	5	5)	9.250	1.007	9.19	83.8	73.6
[0	-5	4]	(2	0	0)	(4	4	5)	9.250	1.003	9.22	77.5	76.7
[0	-5	3]	(2	0	0)	(5	3	5)	9.250	1.001	9.24	74.3	80.0

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Anthophyllite (020) 237 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[1	0	-1]	(0	2	0)	(1	0	1)	8.950	5.077	1.76	90.0	74.1
[1	0	0]	(0	2	0)	(0	1	1)	8.950	5.064	1.77	73.6	90.0
[1	0	-1]	(0	2	0)	(1	1	1)	8.950	4.885	1.83	74.2	74.1
[1	0	-2]	(0	2	0)	(2	0	1)	8.950	4.586	1.95	90.0	60.3
[1	0	-2]	(0	2	0)	(2	1	1)	8.950	4.442	2.01	75.6	60.3
[1	0	-1]	(0	2	0)	(1	-2	1)	8.950	4.416	2.03	60.4	74.1
[1	0	-2]	(0	2	0)	(2	2	1)	8.950	4.081	2.19	62.9	60.3
[1	0	0]	(0	2	0)	(0	3	1)	8.950	3.954	2.26	48.5	90.0
[1	0	3]	(0	2	0)	(-3	1	1)	8.950	3.914	2.29	77.4	49.4
[1	0	-1]	(0	2	0)	(1	-3	1)	8.950	3.867	2.31	49.6	74.1
[1	0	-3]	(0	2	0)	(3	2	1)	8.950	3.660	2.45	65.9	49.4
[1	0	-2]	(0	2	0)	(2	-3	1)	8.950	3.636	2.46	52.5	60.3
[1	0	-1]	(0	2	0)	(1	4	1)	8.950	3.357	2.67	41.4	74.1
[1	0	-3]	(0	2	0)	(3	-3	1)	8.950	3.329	2.69	56.1	49.4
[1	0	-2]	(0	2	0)	(2	4	1)	8.950	3.203	2.79	44.3	60.3
[1	0	-3]	(0	2	0)	(3	-4	1)	8.950	2.987	3.00	48.1	49.4
[1	0	0]	(0	2	0)	(0	5	1)	8.950	2.963	3.02	34.1	90.0
[1	0	1]	(0	2	0)	(-1	5	1)	8.950	2.926	3.06	35.2	74.1
[1	0	-2]	(0	2	0)	(2	-5	1)	8.950	2.822	3.17	38.0	60.3
[1	0	-3]	(0	2	0)	(3	5	1)	8.950	2.671	3.35	41.8	49.4
[2	0	1]	(0	2	0)	(-1	0	2)	8.950	2.614	3.42	90.0	81.9
[2	0	-1]	(0	2	0)	(1	1	2)	8.950	2.586	3.46	81.7	81.9
[1	0	-1]	(0	2	0)	(1	6	1)	8.950	2.572	3.48	30.4	74.1
[1	0	1]	(0	2	0)	(-2	1	2)	8.950	2.513	3.56	81.9	74.1
[2	0	1]	(0	2	0)	(1	2	-2)	8.950	2.509	3.57	73.7	81.9
[1	0	-2]	(0	2	0)	(2	6	1)	8.950	2.501	3.58	33.0	60.3
[2	0	-3]	(0	2	0)	(3	0	2)	8.950	2.427	3.69	90.0	66.8
[2	0	-3]	(0	2	0)	(3	1	2)	8.950	2.405	3.72	82.3	66.8
[2	0	1]	(0	2	0)	(1	3	-2)	8.950	2.394	3.74	66.3	81.9
[1	0	-3]	(0	2	0)	(3	6	1)	8.950	2.394	3.74	36.6	49.4
[2	0	-3]	(0	2	0)	(3	-2	2)	8.950	2.342	3.82	74.8	66.8
[1	0	-1]	(0	2	0)	(2	3	2)	8.950	2.336	3.83	67.0	74.1
[1	0	-2]	(0	2	0)	(4	-1	2)	8.950	2.274	3.94	82.7	60.3
[1	0	0]	(0	2	0)	(0	4	2)	8.950	2.274	3.94	59.5	90.0
[2	0	1]	(0	2	0)	(1	4	-2)	8.950	2.257	3.97	59.7	81.9
[2	0	-3]	(0	2	0)	(3	3	2)	8.950	2.248	3.98	67.9	66.8
[1	0	-2]	(0	2	0)	(2	-7	1)	8.950	2.233	4.01	29.1	60.3
[1	0	-2]	(0	2	0)	(4	3	2)	8.950	2.140	4.18	69.0	60.3
[2	0	-5]	(0	2	0)	(5	-1	2)	8.950	2.134	4.19	83.2	54.5
[2	0	-3]	(0	2	0)	(3	4	2)	8.950	2.133	4.20	61.5	66.8
[2	0	-1]	(0	2	0)	(1	5	2)	8.950	2.111	4.24	53.9	81.9
[2	0	-5]	(0	2	0)	(5	2	2)	8.950	2.090	4.28	76.5	54.5
[1	0	-1]	(0	2	0)	(2	-5	2)	8.950	2.071	4.32	54.7	74.1
[1	0	-1]	(0	2	0)	(1	8	1)	8.950	2.047	4.37	23.8	74.1
[2	0	-5]	(0	2	0)	(5	3	2)	8.950	2.022	4.43	70.2	54.5
[1	0	-2]	(0	2	0)	(2	-8	1)	8.950	2.011	4.45	26.0	60.3
[2	0	-3]	(0	2	0)	(3	5	2)	8.950	2.009	4.46	55.9	66.8
[1	0	-3]	(0	2	0)	(6	1	2)	8.950	1.993	4.49	83.6	49.4

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Anthophyllite (020) 237 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[2	0	1]	(0	2	0)	(1	6	-2)	8.950	1.966	4.55	48.8	81.9
[2	0	-5]	(0	2	0)	(5	4	2)	8.950	1.937	4.62	64.3	54.5
[1	0	-2]	(0	2	0)	(4	5	2)	8.950	1.931	4.64	57.4	60.3
[1	0	-3]	(0	2	0)	(6	-3	2)	8.950	1.901	4.71	71.4	49.4
[2	0	-3]	(0	2	0)	(3	6	2)	8.950	1.883	4.75	50.9	66.8
[2	0	-7]	(0	2	0)	(7	0	2)	8.950	1.868	4.79	90.0	45.0
[1	0	0]	(0	2	0)	(0	9	1)	8.950	1.861	4.81	20.6	90.0
[2	0	-7]	(0	2	0)	(7	1	2)	8.950	1.858	4.82	84.0	45.0
[1	0	-1]	(0	2	0)	(1	-9	1)	8.950	1.852	4.83	21.4	74.1
[2	0	-5]	(0	2	0)	(5	5	2)	8.950	1.843	4.86	59.0	54.5
[2	0	-7]	(0	2	0)	(7	2	2)	8.950	1.828	4.90	78.2	45.0
[2	0	1]	(0	2	0)	(1	7	-2)	8.950	1.828	4.90	44.4	81.9
[1	0	-2]	(0	2	0)	(2	9	1)	8.950	1.825	4.91	23.4	60.3
[1	0	-1]	(0	2	0)	(2	7	2)	8.950	1.802	4.97	45.2	74.1
[2	0	-7]	(0	2	0)	(7	-3	2)	8.950	1.782	5.02	72.6	45.0
[1	0	-3]	(0	2	0)	(3	9	1)	8.950	1.782	5.02	26.4	49.4
[2	0	-3]	(0	2	0)	(3	7	2)	8.950	1.760	5.08	46.5	66.8
[3	0	1]	(0	2	0)	(1	0	-3)	8.950	1.752	5.11	90.0	84.6
[1	0	0]	(0	2	0)	(0	1	-3)	8.950	1.752	5.11	84.4	90.0
[1	0	-3]	(0	2	0)	(6	5	2)	8.950	1.750	5.12	60.7	49.4
[3	0	1]	(0	2	0)	(1	1	-3)	8.950	1.744	5.13	84.4	84.6
[2	0	-5]	(0	2	0)	(5	6	2)	8.950	1.744	5.13	54.2	54.5
[2	0	-7]	(0	2	0)	(7	4	2)	8.950	1.724	5.19	67.3	45.0
[3	0	-2]	(0	2	0)	(2	-1	3)	8.950	1.721	5.20	84.5	79.2
[3	0	-1]	(0	2	0)	(1	2	3)	8.950	1.719	5.21	78.9	84.6
[1	0	-2]	(0	2	0)	(4	7	2)	8.950	1.707	5.24	48.1	60.3
[2	0	-1]	(0	2	0)	(1	8	2)	8.950	1.700	5.27	40.6	81.9
[3	0	-2]	(0	2	0)	(2	2	3)	8.950	1.698	5.27	79.1	79.2
[3	0	1]	(0	2	0)	(1	3	-3)	8.950	1.681	5.32	73.6	84.6
[2	0	-7]	(0	2	0)	(7	5	2)	8.950	1.656	5.40	62.4	45.0
[2	0	-5]	(0	2	0)	(5	-7	2)	8.950	1.645	5.44	50.0	54.5
[2	0	-3]	(0	2	0)	(3	8	2)	8.950	1.645	5.44	42.7	66.8
[3	0	-4]	(0	2	0)	(4	1	3)	8.950	1.638	5.46	84.7	69.2
[3	0	-1]	(0	2	0)	(1	4	3)	8.950	1.631	5.49	68.6	84.6
[3	0	-2]	(0	2	0)	(2	4	3)	8.950	1.613	5.55	68.9	79.2
[3	0	-4]	(0	2	0)	(4	3	3)	8.950	1.586	5.64	74.6	69.2
[3	0	-5]	(0	2	0)	(5	-1	3)	8.950	1.583	5.65	84.9	64.6
[2	0	-7]	(0	2	0)	(7	6	2)	8.950	1.583	5.65	58.0	45.0
[1	0	-1]	(0	2	0)	(3	-4	3)	8.950	1.583	5.65	69.3	74.1
[2	0	-1]	(0	2	0)	(1	9	2)	8.950	1.583	5.65	37.3	81.9
[1	0	0]	(0	2	0)	(0	5	3)	8.950	1.579	5.67	63.8	90.0
[1	0	3]	(0	2	0)	(-6	7	2)	8.950	1.578	5.67	51.9	49.4
[3	0	1]	(0	2	0)	(1	5	-3)	8.950	1.574	5.69	63.9	84.6
[1	0	-1]	(0	2	0)	(2	9	2)	8.950	1.566	5.72	38.1	74.1
[3	0	-5]	(0	2	0)	(5	-2	3)	8.950	1.565	5.72	79.9	64.6
[3	0	-2]	(0	2	0)	(2	5	3)	8.950	1.557	5.75	64.2	79.2
[2	0	-5]	(0	2	0)	(5	8	2)	8.950	1.550	5.77	46.2	54.5
[3	0	-4]	(0	2	0)	(4	-4	3)	8.950	1.544	5.80	69.8	69.2

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Anthophyllite (020) 237 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[2	0	-3]	(0	2	0)	(3	9	2)	8.950	1.538	5.82	39.3	66.8
[3	0	-5]	(0	2	0)	(5	-3	3)	8.950	1.536	5.83	75.1	64.6
[1	0	-1]	(0	2	0)	(3	5	3)	8.950	1.530	5.85	64.7	74.1
[1	0	-2]	(0	2	0)	(6	1	3)	8.950	1.523	5.88	85.1	60.3
[3	0	1]	(0	2	0)	(1	6	-3)	8.950	1.511	5.92	59.6	84.6
[2	0	-7]	(0	2	0)	(7	7	2)	8.950	1.508	5.93	53.9	45.0
[1	0	-2]	(0	2	0)	(6	-2	3)	8.950	1.507	5.94	80.3	60.3
[1	0	-2]	(0	2	0)	(4	9	2)	8.950	1.502	5.96	40.9	60.3
[3	0	-5]	(0	2	0)	(5	-4	3)	8.950	1.498	5.98	70.4	64.6
[3	0	-2]	(0	2	0)	(2	6	3)	8.950	1.496	5.98	59.9	79.2
[3	0	-4]	(0	2	0)	(4	-5	3)	8.950	1.495	5.99	65.3	69.2
[3	0	-7]	(0	2	0)	(7	-1	3)	8.950	1.460	6.13	85.3	56.3
[2	0	-5]	(0	2	0)	(5	9	2)	8.950	1.460	6.13	42.8	54.5
[3	0	-5]	(0	2	0)	(5	5	3)	8.950	1.453	6.16	66.1	64.6
[1	0	-2]	(0	2	0)	(6	4	3)	8.950	1.446	6.19	71.1	60.3
[3	0	-7]	(0	2	0)	(7	2	3)	8.950	1.446	6.19	80.7	56.3
[3	0	-1]	(0	2	0)	(1	7	3)	8.950	1.445	6.19	55.6	84.6
[3	0	-4]	(0	2	0)	(4	6	3)	8.950	1.440	6.21	61.1	69.2
[2	0	-7]	(0	2	0)	(7	-8	2)	8.950	1.434	6.24	50.1	45.0
[3	0	-2]	(0	2	0)	(2	7	3)	8.950	1.432	6.25	55.9	79.2
[3	0	7]	(0	2	0)	(7	3	-3)	8.950	1.423	6.29	76.2	56.3
[1	0	-3]	(0	2	0)	(6	9	2)	8.950	1.412	6.34	44.8	49.4
[1	0	-1]	(0	2	0)	(3	-7	3)	8.950	1.411	6.34	56.5	74.1
[1	0	-2]	(0	2	0)	(6	5	3)	8.950	1.406	6.37	66.9	60.3
[3	0	-5]	(0	2	0)	(5	6	3)	8.950	1.403	6.38	62.0	64.6
[3	0	-8]	(0	2	0)	(8	1	3)	8.950	1.396	6.41	85.5	52.7
[3	0	7]	(0	2	0)	(7	4	-3)	8.950	1.392	6.43	71.9	56.3
[3	0	-8]	(0	2	0)	(8	2	3)	8.950	1.384	6.47	81.1	52.7
[3	0	-4]	(0	2	0)	(4	-7	3)	8.950	1.383	6.47	57.2	69.2
[3	0	-1]	(0	2	0)	(1	8	3)	8.950	1.379	6.49	51.9	84.6
[3	0	-2]	(0	2	0)	(2	8	3)	8.950	1.368	6.54	52.3	79.2
[3	0	-8]	(0	2	0)	(8	-3	3)	8.950	1.363	6.56	76.8	52.7
[2	0	-7]	(0	2	0)	(7	9	2)	8.950	1.362	6.57	46.8	45.0
[3	0	7]	(0	2	0)	(7	-5	-3)	8.950	1.356	6.60	67.7	56.3
[3	0	-5]	(0	2	0)	(5	7	3)	8.950	1.350	6.63	58.1	64.6
[1	0	-1]	(0	2	0)	(3	-8	3)	8.950	1.350	6.63	52.9	74.1
[3	0	-8]	(0	2	0)	(8	4	3)	8.950	1.337	6.70	72.6	52.7
[1	0	-3]	(0	2	0)	(9	-1	3)	8.950	1.333	6.71	85.7	49.4
[3	0	-4]	(0	2	0)	(4	8	3)	8.950	1.325	6.75	53.7	69.2
[1	0	-3]	(0	2	0)	(9	-2	3)	8.950	1.322	6.77	81.5	49.4
[4	0	1]	(0	2	0)	(1	0	-4)	8.950	1.317	6.80	90.0	85.9
[3	0	7]	(0	2	0)	(7	6	-3)	8.950	1.315	6.81	63.8	56.3
[3	0	-1]	(0	2	0)	(1	9	3)	8.950	1.315	6.81	48.6	84.6
[4	0	-1]	(0	2	0)	(1	1	4)	8.950	1.313	6.82	85.8	85.9
[1	0	-2]	(0	2	0)	(6	-7	3)	8.950	1.312	6.82	59.1	60.3
[1	0	0]	(0	2	0)	(0	2	-4)	8.950	1.306	6.85	81.6	90.0
[3	0	-2]	(0	2	0)	(2	9	3)	8.950	1.305	6.86	49.0	79.2
[3	0	-8]	(0	2	0)	(8	5	3)	8.950	1.304	6.86	68.6	52.7

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Anthophyllite (020) 237 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[2	0	1]	(0	2	0)	(2	1	-4)	8.950	1.303	6.87	85.8	81.9
[4	0	-1]	(0	2	0)	(1	2	4)	8.950	1.303	6.87	81.6	85.9
[3	0	-5]	(0	2	0)	(5	-8	3)	8.950	1.296	6.91	54.6	64.6
[4	0	-3]	(0	2	0)	(3	0	4)	8.950	1.291	6.93	90.0	77.9
[4	0	-3]	(0	2	0)	(3	-1	4)	8.950	1.287	6.95	85.9	77.9
[4	0	-1]	(0	2	0)	(1	3	4)	8.950	1.286	6.96	77.6	85.9
[1	0	-3]	(0	2	0)	(9	-4	3)	8.950	1.281	6.99	73.4	49.4
[4	0	-3]	(0	2	0)	(3	2	4)	8.950	1.278	7.01	81.8	77.9
[2	0	-1]	(0	2	0)	(2	3	4)	8.950	1.277	7.01	77.6	81.9
[3	0	-7]	(0	2	0)	(7	7	3)	8.950	1.271	7.04	60.2	56.3
[1	0	-1]	(0	2	0)	(4	-1	4)	8.950	1.266	7.07	85.9	74.1
[4	0	-3]	(0	2	0)	(3	3	4)	8.950	1.262	7.09	77.8	77.9
[4	0	-5]	(0	2	0)	(5	0	4)	8.950	1.243	7.20	90.0	70.4
[3	0	-5]	(0	2	0)	(5	9	3)	8.950	1.242	7.21	51.4	64.6
[1	0	-1]	(0	2	0)	(4	-3	4)	8.950	1.242	7.21	78.0	74.1
[4	0	-5]	(0	2	0)	(5	1	4)	8.950	1.240	7.22	86.0	70.4
[4	0	-3]	(0	2	0)	(3	-4	4)	8.950	1.240	7.22	73.9	77.9
[4	0	-1]	(0	2	0)	(1	5	4)	8.950	1.236	7.24	69.8	85.9
[4	0	-5]	(0	2	0)	(5	2	4)	8.950	1.231	7.27	82.1	70.4
[3	0	-8]	(0	2	0)	(8	-7	3)	8.950	1.228	7.29	61.3	52.7
[2	0	-1]	(0	2	0)	(2	5	4)	8.950	1.228	7.29	69.9	81.9
[3	0	-7]	(0	2	0)	(7	8	3)	8.950	1.226	7.30	56.8	56.3
[4	0	-3]	(0	2	0)	(3	-5	4)	8.950	1.214	7.37	70.2	77.9
[2	0	-3]	(0	2	0)	(6	-1	4)	8.950	1.211	7.39	86.1	66.8
[4	0	1]	(0	2	0)	(-1	6	4)	8.950	1.205	7.43	66.2	85.9
[4	0	-5]	(0	2	0)	(5	4	4)	8.950	1.198	7.47	74.5	70.4
[1	0	-1]	(0	2	0)	(4	5	4)	8.950	1.196	7.48	70.5	74.1
[2	0	-3]	(0	2	0)	(6	-3	4)	8.950	1.189	7.53	78.5	66.8
[3	0	-8]	(0	2	0)	(8	8	3)	8.950	1.187	7.54	58.0	52.7
[1	0	-3]	(0	2	0)	(9	-7	3)	8.950	1.185	7.55	62.4	49.4
[4	0	-3]	(0	2	0)	(3	6	4)	8.950	1.185	7.56	66.6	77.9
[3	0	-7]	(0	2	0)	(7	9	3)	8.950	1.179	7.59	53.6	56.3
[4	0	-7]	(0	2	0)	(7	1	4)	8.950	1.178	7.60	86.2	63.5
[4	0	-5]	(0	2	0)	(5	5	4)	8.950	1.174	7.62	70.8	70.4
[4	0	-7]	(0	2	0)	(7	2	4)	8.950	1.171	7.64	82.5	63.5
[4	0	-1]	(0	2	0)	(1	7	4)	8.950	1.171	7.65	62.8	85.9
[2	0	1]	(0	2	0)	(2	7	-4)	8.950	1.164	7.69	62.9	81.9
[4	0	-7]	(0	2	0)	(7	3	4)	8.950	1.158	7.73	78.8	63.5
[4	0	-3]	(0	2	0)	(3	-7	4)	8.950	1.152	7.77	63.2	77.9
[2	0	-3]	(0	2	0)	(6	5	4)	8.950	1.149	7.79	71.3	66.8
[1	0	-3]	(0	2	0)	(9	-8	3)	8.950	1.148	7.80	59.1	49.4
[4	0	-5]	(0	2	0)	(5	6	4)	8.950	1.148	7.80	67.4	70.4
[3	0	-8]	(0	2	0)	(8	9	3)	8.950	1.145	7.82	54.8	52.7
[1	0	-2]	(0	2	0)	(8	-1	4)	8.950	1.144	7.82	86.3	60.3
[4	0	-7]	(0	2	0)	(7	4	4)	8.950	1.142	7.84	75.2	63.5
[4	0	1]	(0	2	0)	(-1	8	4)	8.950	1.135	7.89	59.5	85.9
[1	0	-2]	(0	2	0)	(8	3	4)	8.950	1.126	7.95	79.1	60.3
[4	0	-5]	(0	2	0)	(5	-7	4)	8.950	1.118	8.00	64.1	70.4

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Anthophyllite (020) 237 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[4	0	-3]	(0	2	0)	(3	8	4)	8.950	1.118	8.00	60.0	77.9
[4	0	-9]	(0	2	0)	(9	1	4)	8.950	1.109	8.07	86.4	57.3
[4	0	-9]	(0	2	0)	(9	2	4)	8.950	1.102	8.12	82.9	57.3
[4	0	-7]	(0	2	0)	(7	-6	4)	8.950	1.098	8.15	68.4	63.5
[4	0	-1]	(0	2	0)	(1	9	4)	8.950	1.098	8.15	56.5	85.9
[2	0	-3]	(0	2	0)	(6	-7	4)	8.950	1.096	8.16	64.6	66.8
[2	0	-1]	(0	2	0)	(2	9	4)	8.950	1.092	8.20	56.7	81.9
[4	0	-9]	(0	2	0)	(9	3	4)	8.950	1.092	8.20	79.5	57.3
[1	0	-2]	(0	2	0)	(8	-5	4)	8.950	1.092	8.20	72.2	60.3
[4	0	-5]	(0	2	0)	(5	8	4)	8.950	1.087	8.24	60.9	70.4
[4	0	-3]	(0	2	0)	(3	9	4)	8.950	1.083	8.27	57.0	77.9
[4	0	-9]	(0	2	0)	(9	-4	4)	8.950	1.078	8.30	76.1	57.3
[4	0	-7]	(0	2	0)	(7	7	4)	8.950	1.072	8.35	65.2	63.5
[4	0	-9]	(0	2	0)	(9	5	4)	8.950	1.061	8.44	72.8	57.3
[4	0	-5]	(0	2	0)	(5	9	4)	8.950	1.054	8.49	58.0	70.4
[1	0	0]	(0	2	0)	(0	1	5)	8.950	1.054	8.49	86.6	90.0
[5	0	1]	(0	2	0)	(-1	1	5)	8.950	1.052	8.50	86.6	86.7
[5	0	-2]	(0	2	0)	(2	1	5)	8.950	1.047	8.55	86.6	83.5
[5	0	-1]	(0	2	0)	(1	2	5)	8.950	1.047	8.55	83.3	86.7
[1	0	-2]	(0	2	0)	(8	-7	4)	8.950	1.046	8.56	65.9	60.3
[4	0	-7]	(0	2	0)	(7	8	4)	8.950	1.044	8.57	62.2	63.5
[5	0	-2]	(0	2	0)	(2	-2	5)	8.950	1.042	8.59	83.3	83.5
[4	0	-9]	(0	2	0)	(9	6	4)	8.950	1.041	8.60	69.6	57.3
[5	0	-3]	(0	2	0)	(3	0	5)	8.950	1.041	8.60	90.0	80.3
[1	0	0]	(0	2	0)	(0	3	5)	8.950	1.040	8.61	80.0	90.0
[5	0	-3]	(0	2	0)	(3	1	5)	8.950	1.039	8.61	86.7	80.3
[5	0	-1]	(0	2	0)	(1	-3	5)	8.950	1.038	8.62	80.0	86.7
[2	0	-3]	(0	2	0)	(6	9	4)	8.950	1.036	8.64	58.6	66.8
[5	0	-3]	(0	2	0)	(3	2	5)	8.950	1.034	8.66	83.4	80.3
[5	0	-2]	(0	2	0)	(2	3	5)	8.950	1.033	8.66	80.0	83.5
[5	0	4]	(0	2	0)	(4	0	-5)	8.950	1.030	8.69	90.0	77.1
[5	0	4]	(0	2	0)	(4	1	-5)	8.950	1.028	8.71	86.7	77.1
[5	0	-1]	(0	2	0)	(1	4	5)	8.950	1.026	8.72	76.7	86.7
[5	0	-3]	(0	2	0)	(3	-3	5)	8.950	1.025	8.73	80.1	80.3
[5	0	-4]	(0	2	0)	(4	2	5)	8.950	1.023	8.75	83.4	77.1
[5	0	-2]	(0	2	0)	(2	4	5)	8.950	1.021	8.76	76.8	83.5
[4	0	-7]	(0	2	0)	(7	-9	4)	8.950	1.015	8.81	59.3	63.5
[5	0	-4]	(0	2	0)	(4	3	5)	8.950	1.015	8.82	80.2	77.1
[1	0	-1]	(0	2	0)	(5	1	5)	8.950	1.014	8.83	86.8	74.1
[5	0	-3]	(0	2	0)	(3	-4	5)	8.950	1.014	8.83	76.9	80.3
[5	0	-1]	(0	2	0)	(1	5	5)	8.950	1.011	8.85	73.6	86.7
[1	0	-1]	(0	2	0)	(5	-2	5)	8.950	1.009	8.87	83.5	74.1
[5	0	-2]	(0	2	0)	(2	5	5)	8.950	1.007	8.89	73.7	83.5
[5	0	4]	(0	2	0)	(4	4	-5)	8.950	1.003	8.92	77.0	77.1
[1	0	-1]	(0	2	0)	(5	3	5)	8.950	1.001	8.94	80.3	74.1

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Anthophyllite (210) 479 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[1	-2	-1]	(2	1	0)	(1	0	1)	8.218	5.077	1.62	75.9	82.5
[1	-2	2]	(2	1	0)	(0	1	1)	8.218	5.064	1.62	82.5	75.3
[1	-2	-3]	(2	1	0)	(1	-1	1)	8.218	4.885	1.68	83.7	68.5
[1	-2	1]	(2	1	0)	(1	1	1)	8.218	4.885	1.68	68.9	82.5
[1	-2	-2]	(2	1	0)	(2	0	1)	8.218	4.586	1.79	63.9	75.3
[1	-2	-4]	(2	1	0)	(2	-1	1)	8.218	4.442	1.85	71.8	62.3
[1	-2	0]	(2	1	0)	(2	1	1)	8.218	4.442	1.85	57.3	90.0
[1	-2	5]	(2	1	0)	(-1	2	1)	8.218	4.416	1.86	89.2	56.8
[1	-2	-3]	(2	1	0)	(1	2	-1)	8.218	4.416	1.86	64.0	68.5
[1	-2	6]	(2	1	0)	(-2	2	1)	8.218	4.081	2.01	79.5	51.8
[1	-2	2]	(2	1	0)	(2	2	1)	8.218	4.081	2.01	53.0	75.3
[1	-2	-3]	(2	1	0)	(3	0	1)	8.218	4.011	2.05	54.7	68.5
[1	-2	6]	(2	1	0)	(0	3	1)	8.218	3.954	2.08	72.3	51.8
[1	-2	5]	(2	1	0)	(3	-1	-1)	8.218	3.914	2.10	62.4	56.8
[1	-2	-1]	(2	1	0)	(3	1	1)	8.218	3.914	2.10	48.4	82.5
[1	-2	7]	(2	1	0)	(-1	3	1)	8.218	3.867	2.13	83.6	47.5
[1	-2	5]	(2	1	0)	(1	3	1)	8.218	3.867	2.13	61.1	56.8
[1	-2	-7]	(2	1	0)	(3	-2	1)	8.218	3.660	2.25	70.2	47.5
[1	-2	-1]	(2	1	0)	(3	2	-1)	8.218	3.660	2.25	44.4	82.5
[1	-2	-4]	(2	1	0)	(-2	-3	1)	8.218	3.636	2.26	51.0	62.3
[1	-2	-4]	(2	1	0)	(4	0	1)	8.218	3.479	2.36	48.1	62.3
[1	-2	-6]	(2	1	0)	(4	-1	1)	8.218	3.415	2.41	55.4	51.8
[1	-2	-2]	(2	1	0)	(4	1	1)	8.218	3.415	2.41	42.0	75.3
[1	-2	7]	(2	1	0)	(1	4	1)	8.218	3.357	2.45	59.6	47.5
[1	-2	-3]	(2	1	0)	(3	3	-1)	8.218	3.329	2.47	42.6	68.5
[1	-2	0]	(2	1	0)	(-4	-2	1)	8.218	3.243	2.53	37.9	90.0
[1	-2	-6]	(2	1	0)	(2	4	-1)	8.218	3.203	2.57	50.5	51.8
[1	-2	5]	(2	1	0)	(-5	0	1)	8.218	3.030	2.71	43.3	56.8
[1	-2	2]	(2	1	0)	(4	3	1)	8.218	3.005	2.73	36.0	75.3
[1	-2	-7]	(2	1	0)	(5	-1	1)	8.218	2.988	2.75	50.2	47.5
[1	-2	-3]	(2	1	0)	(5	1	1)	8.218	2.988	2.75	37.4	68.5
[1	-2	5]	(2	1	0)	(3	4	1)	8.218	2.987	2.75	42.6	56.8
[1	-2	-1]	(2	1	0)	(5	2	1)	8.218	2.870	2.86	33.2	82.5
[1	-2	4]	(2	1	0)	(4	4	1)	8.218	2.747	2.99	36.0	62.3
[1	-2	1]	(2	1	0)	(5	3	1)	8.218	2.702	3.04	31.1	82.5
[1	-2	7]	(2	1	0)	(3	5	1)	8.218	2.671	3.08	43.3	47.5
[1	-2	-6]	(2	1	0)	(6	0	1)	8.218	2.663	3.09	39.9	51.8
[1	-2	0]	(2	1	0)	(0	0	2)	8.218	2.640	3.11	90.0	90.0
[1	-2	4]	(2	1	0)	(6	1	-1)	8.218	2.634	3.12	34.3	62.3
[2	-4	-1]	(2	1	0)	(1	0	2)	8.218	2.614	3.14	82.8	86.3
[2	-4	-3]	(2	1	0)	(1	-1	2)	8.218	2.586	3.18	86.7	78.9
[2	-4	1]	(2	1	0)	(1	1	2)	8.218	2.586	3.18	79.0	86.3
[1	-2	-2]	(2	1	0)	(6	2	1)	8.218	2.552	3.22	30.0	75.3
[1	-2	-2]	(2	1	0)	(2	-1	2)	8.218	2.513	3.27	79.8	75.3
[1	-2	0]	(2	1	0)	(2	1	2)	8.218	2.513	3.27	72.2	90.0
[1	-2	3]	(2	1	0)	(5	4	1)	8.218	2.509	3.28	30.7	68.5
[2	-4	5]	(2	1	0)	(-1	2	2)	8.218	2.509	3.28	89.5	71.9
[2	-4	3]	(2	1	0)	(1	2	2)	8.218	2.509	3.28	75.6	78.9

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[1	-2	-6]	(2	1	0)	(4	5	-1)	8.218	2.495	3.29	36.9	51.8
[1	-2	0]	(2	1	0)	(6	3	1)	8.218	2.431	3.38	27.4	90.0
[2	-4	-3]	(2	1	0)	(3	0	2)	8.218	2.427	3.39	69.5	78.9
[2	-4	-5]	(2	1	0)	(3	-1	2)	8.218	2.405	3.42	73.5	71.9
[2	-4	-1]	(2	1	0)	(3	1	2)	8.218	2.405	3.42	65.9	86.3
[2	-4	7]	(2	1	0)	(-1	3	2)	8.218	2.394	3.43	86.0	65.4
[2	-4	5]	(2	1	0)	(1	3	2)	8.218	2.394	3.43	72.6	71.9
[1	-2	-7]	(2	1	0)	(7	0	1)	8.218	2.363	3.48	37.4	47.5
[1	-2	-5]	(2	1	0)	(7	1	1)	8.218	2.343	3.51	32.0	56.8
[2	-4	-7]	(2	1	0)	(3	-2	2)	8.218	2.342	3.51	77.4	65.4
[2	-4	-1]	(2	1	0)	(3	2	-2)	8.218	2.342	3.51	62.8	86.3
[1	-2	4]	(2	1	0)	(-2	3	2)	8.218	2.336	3.52	87.4	62.3
[1	-2	2]	(2	1	0)	(2	3	2)	8.218	2.336	3.52	66.2	75.3
[1	-2	-5]	(2	1	0)	(5	5	-1)	8.218	2.313	3.55	31.6	56.8
[1	-2	-3]	(2	1	0)	(7	2	1)	8.218	2.285	3.60	27.7	68.5
[1	-2	-3]	(2	1	0)	(4	-1	2)	8.218	2.274	3.61	67.8	68.5
[1	-2	-1]	(2	1	0)	(4	1	2)	8.218	2.274	3.61	60.3	82.5
[1	-2	4]	(2	1	0)	(0	4	2)	8.218	2.274	3.61	76.5	62.3
[2	-4	9]	(2	1	0)	(-1	4	2)	8.218	2.257	3.64	82.9	59.5
[2	-4	7]	(2	1	0)	(1	4	2)	8.218	2.257	3.64	70.1	65.4
[2	-4	-9]	(2	1	0)	(3	-3	2)	8.218	2.248	3.66	81.3	59.5
[2	-4	-3]	(2	1	0)	(3	3	-2)	8.218	2.248	3.66	60.2	78.9
[1	-2	1]	(2	1	0)	(-7	-3	1)	8.218	2.197	3.74	24.8	82.5
[2	-4	-5]	(2	1	0)	(5	0	2)	8.218	2.149	3.82	58.9	71.9
[1	-2	-5]	(2	1	0)	(4	-3	2)	8.218	2.140	3.84	75.7	56.8
[1	-2	1]	(2	1	0)	(4	3	2)	8.218	2.140	3.84	54.8	82.5
[1	-2	4]	(2	1	0)	(6	5	1)	8.218	2.136	3.85	27.2	62.3
[2	-4	-7]	(2	1	0)	(5	-1	2)	8.218	2.134	3.85	62.8	65.4
[2	-4	-3]	(2	1	0)	(5	1	2)	8.218	2.134	3.85	55.5	78.9
[2	-4	-11]	(2	1	0)	(3	-4	2)	8.218	2.133	3.85	84.9	54.2
[2	-4	5]	(2	1	0)	(3	4	2)	8.218	2.133	3.85	58.3	71.9
[1	-2	7]	(2	1	0)	(5	6	1)	8.218	2.126	3.87	33.1	47.5
[2	-4	-11]	(2	1	0)	(-1	5	-2)	8.218	2.111	3.89	80.3	54.2
[2	-4	9]	(2	1	0)	(1	5	2)	8.218	2.111	3.89	68.2	59.5
[1	-2	-6]	(2	1	0)	(8	1	1)	8.218	2.104	3.91	30.4	51.8
[1	-2	-1]	(2	1	0)	(7	4	-1)	8.218	2.090	3.93	23.5	82.5
[2	-4	9]	(2	1	0)	(-5	2	2)	8.218	2.090	3.93	66.8	59.5
[2	-4	-1]	(2	1	0)	(5	2	2)	8.218	2.090	3.93	52.5	86.3
[1	-2	6]	(2	1	0)	(-2	5	2)	8.218	2.071	3.97	86.2	51.8
[1	-2	-4]	(2	1	0)	(2	5	-2)	8.218	2.071	3.97	62.3	62.3
[1	-2	4]	(2	1	0)	(-8	-2	1)	8.218	2.061	3.99	26.2	62.3
[2	-4	-11]	(2	1	0)	(5	-3	2)	8.218	2.022	4.06	70.7	54.2
[2	-4	1]	(2	1	0)	(5	3	2)	8.218	2.022	4.06	50.1	86.3
[2	-4	-13]	(2	1	0)	(3	-5	2)	8.218	2.009	4.09	88.2	49.6
[2	-4	7]	(2	1	0)	(3	5	2)	8.218	2.009	4.09	56.8	65.4
[1	-2	-2]	(2	1	0)	(8	3	1)	8.218	1.996	4.12	23.0	75.3
[1	-2	-4]	(2	1	0)	(6	-1	2)	8.218	1.993	4.12	58.5	62.3
[1	-2	-2]	(2	1	0)	(6	1	2)	8.218	1.993	4.12	51.3	75.3

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[1	-2	-6]	(2	1	0)	(6	6	-1)	8.218	1.986	4.14	28.6	51.8
[1	-2	3]	(2	1	0)	(7	5	1)	8.218	1.972	4.17	23.7	68.5
[2	-4	-13]	(2	1	0)	(-1	6	-2)	8.218	1.966	4.18	78.0	49.6
[2	-4	-11]	(2	1	0)	(-1	-6	2)	8.218	1.966	4.18	66.6	54.2
[2	-4	3]	(2	1	0)	(5	4	2)	8.218	1.937	4.24	48.4	78.9
[1	-2	-7]	(2	1	0)	(4	-5	2)	8.218	1.931	4.26	82.9	47.5
[1	-2	-3]	(2	1	0)	(4	5	-2)	8.218	1.931	4.26	51.8	68.5
[1	-2	0]	(2	1	0)	(-8	-4	1)	8.218	1.915	4.29	21.3	90.0
[1	-2	-7]	(2	1	0)	(9	1	1)	8.218	1.905	4.31	29.3	47.5
[1	-2	-6]	(2	1	0)	(6	-3	2)	8.218	1.901	4.32	66.3	51.8
[1	-2	0]	(2	1	0)	(6	3	2)	8.218	1.901	4.32	46.1	90.0
[2	-4	15]	(2	1	0)	(-3	6	2)	8.218	1.883	4.36	88.9	45.5
[2	-4	-9]	(2	1	0)	(3	6	-2)	8.218	1.883	4.36	55.9	59.5
[1	-2	-5]	(2	1	0)	(9	2	1)	8.218	1.873	4.39	25.1	56.8
[2	-4	-7]	(2	1	0)	(7	0	2)	8.218	1.868	4.40	51.1	65.4
[2	-4	-9]	(2	1	0)	(7	-1	2)	8.218	1.858	4.42	54.8	59.5
[2	-4	-5]	(2	1	0)	(7	1	2)	8.218	1.858	4.42	47.8	71.9
[1	-2	-5]	(2	1	0)	(7	6	-1)	8.218	1.852	4.44	24.8	56.8
[2	-4	15]	(2	1	0)	(-5	5	2)	8.218	1.843	4.46	78.1	45.5
[2	-4	-5]	(2	1	0)	(5	5	-2)	8.218	1.843	4.46	47.3	71.9
[2	-4	11]	(2	1	0)	(-7	2	2)	8.218	1.828	4.49	58.6	54.2
[2	-4	-3]	(2	1	0)	(7	2	2)	8.218	1.828	4.49	44.9	78.9
[2	-4	15]	(2	1	0)	(-1	7	2)	8.218	1.828	4.50	76.1	45.5
[2	-4	13]	(2	1	0)	(1	7	2)	8.218	1.828	4.50	65.4	49.6
[1	-2	-3]	(2	1	0)	(9	3	1)	8.218	1.824	4.51	21.8	68.5
[1	-2	2]	(2	1	0)	(8	5	1)	8.218	1.823	4.51	20.9	75.3
[1	-2	6]	(2	1	0)	(2	7	2)	8.218	1.802	4.56	60.2	51.8
[2	-4	-13]	(2	1	0)	(7	-3	2)	8.218	1.782	4.61	62.5	49.6
[2	-4	-1]	(2	1	0)	(7	3	2)	8.218	1.782	4.61	42.6	86.3
[1	-2	-1]	(2	1	0)	(9	4	1)	8.218	1.761	4.67	19.7	82.5
[2	-4	-11]	(2	1	0)	(3	7	-2)	8.218	1.760	4.67	55.3	54.2
[3	-6	1]	(2	1	0)	(-1	0	3)	8.218	1.752	4.69	85.2	87.5
[3	-6	2]	(2	1	0)	(0	1	3)	8.218	1.752	4.69	87.4	85.0
[1	-2	2]	(2	1	0)	(6	5	2)	8.218	1.750	4.70	43.2	75.3
[1	-2	-1]	(2	1	0)	(1	-1	3)	8.218	1.744	4.71	87.8	82.5
[3	-6	1]	(2	1	0)	(1	1	3)	8.218	1.744	4.71	82.6	87.5
[2	-4	7]	(2	1	0)	(5	6	2)	8.218	1.744	4.71	46.6	65.4
[1	-2	7]	(2	1	0)	(7	7	1)	8.218	1.736	4.73	26.5	47.5
[1	-2	-5]	(2	1	0)	(8	-1	2)	8.218	1.731	4.75	51.6	56.8
[1	-2	-3]	(2	1	0)	(8	1	2)	8.218	1.731	4.75	44.8	68.5
[3	-6	-2]	(2	1	0)	(2	0	3)	8.218	1.729	4.75	80.4	85.0
[1	-2	4]	(2	1	0)	(8	6	1)	8.218	1.727	4.76	21.7	62.3
[2	-4	-15]	(2	1	0)	(7	-4	2)	8.218	1.724	4.77	66.3	45.5
[2	-4	-1]	(2	1	0)	(7	4	-2)	8.218	1.724	4.77	40.9	86.3
[3	-6	4]	(2	1	0)	(-2	1	3)	8.218	1.721	4.77	83.0	80.1
[1	-2	0]	(2	1	0)	(2	1	3)	8.218	1.721	4.77	77.9	90.0
[3	-6	5]	(2	1	0)	(-1	2	3)	8.218	1.719	4.78	89.7	77.7
[1	-2	1]	(2	1	0)	(1	2	3)	8.218	1.719	4.78	80.2	82.5

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[2	-4	15]	(2	1	0)	(1	8	2)	8.218	1.700	4.83	64.5	45.5
[1	-2	-2]	(2	1	0)	(2	-2	3)	8.218	1.698	4.84	85.6	75.3
[3	-6	2]	(2	1	0)	(2	2	3)	8.218	1.698	4.84	75.5	85.0
[1	-2	-1]	(2	1	0)	(9	5	-1)	8.218	1.689	4.87	18.8	82.5
[3	-6	-1]	(2	1	0)	(3	1	3)	8.218	1.685	4.88	73.4	87.5
[3	-6	7]	(2	1	0)	(-1	3	3)	8.218	1.681	4.89	87.2	73.0
[3	-6	-5]	(2	1	0)	(1	3	-3)	8.218	1.681	4.89	77.9	77.7
[1	-2	-7]	(2	1	0)	(8	-3	2)	8.218	1.670	4.92	59.1	47.5
[1	-2	-1]	(2	1	0)	(8	3	2)	8.218	1.670	4.92	39.6	82.5
[3	-6	-8]	(2	1	0)	(2	-3	3)	8.218	1.661	4.95	88.2	70.7
[3	-6	4]	(2	1	0)	(2	3	3)	8.218	1.661	4.95	73.3	80.1
[2	-4	3]	(2	1	0)	(7	5	2)	8.218	1.656	4.96	39.7	78.9
[2	-4	9]	(2	1	0)	(5	7	2)	8.218	1.645	4.99	46.3	59.5
[2	-4	13]	(2	1	0)	(3	8	2)	8.218	1.645	5.00	54.9	49.6
[3	-6	-4]	(2	1	0)	(4	0	3)	8.218	1.645	5.00	71.6	80.1
[1	-2	-2]	(2	1	0)	(4	-1	3)	8.218	1.638	5.02	74.2	75.3
[3	-6	-2]	(2	1	0)	(4	1	3)	8.218	1.638	5.02	69.1	85.0
[1	-2	3]	(2	1	0)	(-1	4	3)	8.218	1.631	5.04	84.9	68.5
[3	-6	7]	(2	1	0)	(1	4	3)	8.218	1.631	5.04	75.8	73.0
[1	-2	6]	(2	1	0)	(8	7	1)	8.218	1.631	5.04	23.1	51.8
[2	-4	-9]	(2	1	0)	(9	0	2)	8.218	1.622	5.07	45.5	59.5
[3	-6	-8]	(2	1	0)	(4	-2	3)	8.218	1.618	5.08	76.8	70.7
[1	-2	0]	(2	1	0)	(4	2	3)	8.218	1.618	5.08	66.8	90.0
[2	-4	-11]	(2	1	0)	(9	-1	2)	8.218	1.615	5.09	49.0	54.2
[2	-4	-7]	(2	1	0)	(9	1	2)	8.218	1.615	5.09	42.3	65.4
[3	-6	10]	(2	1	0)	(-2	4	3)	8.218	1.613	5.10	89.4	66.4
[1	-2	2]	(2	1	0)	(2	4	3)	8.218	1.613	5.10	71.3	75.3
[1	-2	3]	(2	1	0)	(9	6	1)	8.218	1.612	5.10	19.1	68.5
[2	-4	-5]	(2	1	0)	(9	2	2)	8.218	1.596	5.15	39.5	71.9
[3	-6	-5]	(2	1	0)	(5	0	3)	8.218	1.589	5.17	67.6	77.7
[3	-6	-10]	(2	1	0)	(4	-3	3)	8.218	1.586	5.18	79.5	66.4
[3	-6	2]	(2	1	0)	(4	3	3)	8.218	1.586	5.18	64.7	85.0
[3	-6	-7]	(2	1	0)	(5	-1	3)	8.218	1.583	5.19	70.2	73.0
[1	-2	-1]	(2	1	0)	(5	1	3)	8.218	1.583	5.19	65.1	82.5
[2	-4	5]	(2	1	0)	(7	6	2)	8.218	1.583	5.19	39.1	71.9
[3	-6	-11]	(2	1	0)	(3	-4	3)	8.218	1.583	5.19	86.2	64.3
[3	-6	5]	(2	1	0)	(3	4	3)	8.218	1.583	5.19	67.0	77.7
[3	-6	10]	(2	1	0)	(0	5	3)	8.218	1.579	5.20	78.3	66.4
[1	-2	4]	(2	1	0)	(6	7	2)	8.218	1.578	5.21	42.4	62.3
[3	-6	11]	(2	1	0)	(-1	5	3)	8.218	1.574	5.22	82.7	64.3
[1	-2	3]	(2	1	0)	(1	5	3)	8.218	1.574	5.22	73.9	68.5
[2	-4	-15]	(2	1	0)	(9	-3	2)	8.218	1.565	5.25	56.2	45.5
[2	-4	-3]	(2	1	0)	(9	3	2)	8.218	1.565	5.25	37.2	78.9
[1	-2	-3]	(2	1	0)	(5	-2	3)	8.218	1.565	5.25	72.8	68.5
[3	-6	-1]	(2	1	0)	(5	2	3)	8.218	1.565	5.25	62.9	87.5
[1	-2	1]	(2	1	0)	(8	5	2)	8.218	1.565	5.25	36.7	82.5
[1	-2	4]	(2	1	0)	(-2	5	3)	8.218	1.557	5.28	87.1	62.3
[3	-6	8]	(2	1	0)	(2	5	3)	8.218	1.557	5.28	69.6	70.7

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[2	-4	-11]	(2	1	0)	(5	8	-2)	8.218	1.550	5.30	46.4	54.2
[1	-2	4]	(2	1	0)	(-4	4	3)	8.218	1.544	5.32	82.1	62.3
[3	-6	4]	(2	1	0)	(4	4	3)	8.218	1.544	5.32	62.9	80.1
[2	-4	-15]	(2	1	0)	(3	9	-2)	8.218	1.538	5.34	54.8	45.5
[3	-6	11]	(2	1	0)	(-5	3	3)	8.218	1.536	5.35	75.5	64.3
[3	-6	1]	(2	1	0)	(5	3	3)	8.218	1.536	5.35	60.9	87.5
[1	-2	5]	(2	1	0)	(9	7	1)	8.218	1.533	5.36	20.3	56.8
[3	-6	-13]	(2	1	0)	(3	-5	3)	8.218	1.530	5.37	88.6	60.4
[3	-6	7]	(2	1	0)	(3	5	3)	8.218	1.530	5.37	65.4	73.0
[2	-4	-1]	(2	1	0)	(9	4	2)	8.218	1.525	5.39	35.4	86.3
[3	-6	-8]	(2	1	0)	(6	-1	3)	8.218	1.523	5.40	66.4	70.7
[3	-6	-4]	(2	1	0)	(6	1	3)	8.218	1.523	5.40	61.5	80.1
[3	-6	13]	(2	1	0)	(-1	6	3)	8.218	1.511	5.44	80.8	60.4
[3	-6	11]	(2	1	0)	(1	6	3)	8.218	1.511	5.44	72.2	64.3
[2	-4	7]	(2	1	0)	(7	7	2)	8.218	1.508	5.45	38.9	65.4
[3	-6	-10]	(2	1	0)	(6	-2	3)	8.218	1.507	5.45	69.1	66.4
[3	-6	-2]	(2	1	0)	(6	2	3)	8.218	1.507	5.45	59.2	85.0
[3	-6	-13]	(2	1	0)	(5	-4	3)	8.218	1.498	5.49	78.1	60.4
[1	-2	1]	(2	1	0)	(5	4	3)	8.218	1.498	5.49	59.1	82.5
[3	-6	14]	(2	1	0)	(-2	6	3)	8.218	1.496	5.49	85.0	58.6
[3	-6	10]	(2	1	0)	(2	6	3)	8.218	1.496	5.49	68.0	66.4
[3	-6	-14]	(2	1	0)	(4	-5	3)	8.218	1.495	5.50	84.5	58.6
[1	-2	-2]	(2	1	0)	(4	5	-3)	8.218	1.495	5.50	61.4	75.3
[2	-4	-1]	(2	1	0)	(9	5	-2)	8.218	1.477	5.56	34.1	86.3
[1	-2	-3]	(2	1	0)	(7	-1	3)	8.218	1.460	5.63	63.0	68.5
[3	-6	-5]	(2	1	0)	(7	1	3)	8.218	1.460	5.63	58.1	77.7
[2	-4	13]	(2	1	0)	(5	9	2)	8.218	1.460	5.63	46.6	49.6
[1	-2	-7]	(2	1	0)	(9	8	-1)	8.218	1.455	5.65	22.0	47.5
[1	-2	-5]	(2	1	0)	(5	-5	3)	8.218	1.453	5.66	80.6	56.8
[3	-6	5]	(2	1	0)	(5	5	3)	8.218	1.453	5.66	57.7	77.7
[3	-6	14]	(2	1	0)	(0	7	3)	8.218	1.450	5.67	74.9	58.6
[3	-6	-14]	(2	1	0)	(6	-4	3)	8.218	1.446	5.68	74.4	58.6
[3	-6	2]	(2	1	0)	(6	4	3)	8.218	1.446	5.68	55.6	85.0
[3	-6	-11]	(2	1	0)	(7	-2	3)	8.218	1.446	5.68	65.7	64.3
[1	-2	-1]	(2	1	0)	(7	2	3)	8.218	1.446	5.68	55.9	82.5
[1	-2	5]	(2	1	0)	(-1	7	3)	8.218	1.445	5.69	79.0	56.8
[3	-6	13]	(2	1	0)	(1	7	3)	8.218	1.445	5.69	70.8	60.4
[3	-6	-16]	(2	1	0)	(4	-6	3)	8.218	1.440	5.70	86.8	55.1
[3	-6	8]	(2	1	0)	(4	6	3)	8.218	1.440	5.70	60.1	70.7
[1	-2	3]	(2	1	0)	(8	7	2)	8.218	1.438	5.71	35.8	68.5
[2	-4	9]	(2	1	0)	(7	8	2)	8.218	1.434	5.73	39.1	59.5
[3	-6	16]	(2	1	0)	(-2	7	3)	8.218	1.432	5.74	83.1	55.1
[1	-2	4]	(2	1	0)	(2	7	3)	8.218	1.432	5.74	66.8	62.3
[2	-4	3]	(2	1	0)	(9	6	2)	8.218	1.425	5.77	33.4	78.9
[3	-6	-13]	(2	1	0)	(7	-3	3)	8.218	1.423	5.78	68.4	60.4
[3	-6	-1]	(2	1	0)	(7	3	3)	8.218	1.423	5.78	54.0	87.5
[1	-2	6]	(2	1	0)	(6	9	2)	8.218	1.412	5.82	42.9	51.8
[3	-6	17]	(2	1	0)	(-3	7	3)	8.218	1.411	5.82	87.1	53.4

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-6	-11]	(2	1	0)	(3	7	-3)	8.218	1.411	5.82	62.8	64.3
[3	-6	16]	(2	1	0)	(-6	5	3)	8.218	1.406	5.85	77.0	55.1
[3	-6	4]	(2	1	0)	(6	5	3)	8.218	1.406	5.85	54.2	80.1
[3	-6	-17]	(2	1	0)	(5	-6	3)	8.218	1.403	5.86	83.1	53.4
[3	-6	7]	(2	1	0)	(5	6	3)	8.218	1.403	5.86	56.5	73.0
[3	-6	-8]	(2	1	0)	(8	0	3)	8.218	1.401	5.87	57.5	70.7
[3	-6	-10]	(2	1	0)	(8	-1	3)	8.218	1.396	5.89	60.0	66.4
[1	-2	-2]	(2	1	0)	(8	1	3)	8.218	1.396	5.89	55.1	75.3
[1	-2	-5]	(2	1	0)	(7	-4	3)	8.218	1.392	5.90	71.0	56.8
[3	-6	-1]	(2	1	0)	(7	4	-3)	8.218	1.392	5.90	52.4	87.5
[1	-2	4]	(2	1	0)	(-8	2	3)	8.218	1.384	5.94	62.6	62.3
[3	-6	-4]	(2	1	0)	(8	2	3)	8.218	1.384	5.94	52.9	80.1
[1	-2	-6]	(2	1	0)	(4	-7	3)	8.218	1.383	5.94	89.0	51.8
[3	-6	10]	(2	1	0)	(4	7	3)	8.218	1.383	5.94	59.1	66.4
[3	-6	17]	(2	1	0)	(-1	8	3)	8.218	1.379	5.96	77.5	53.4
[1	-2	5]	(2	1	0)	(1	8	3)	8.218	1.379	5.96	69.6	56.8
[2	-4	5]	(2	1	0)	(9	7	2)	8.218	1.370	6.00	33.1	71.9
[1	-2	6]	(2	1	0)	(-2	8	3)	8.218	1.368	6.01	81.4	51.8
[3	-6	14]	(2	1	0)	(2	8	3)	8.218	1.368	6.01	65.7	58.6
[3	-6	-14]	(2	1	0)	(8	-3	3)	8.218	1.363	6.03	65.2	58.6
[3	-6	-2]	(2	1	0)	(8	3	3)	8.218	1.363	6.03	51.0	85.0
[2	-4	11]	(2	1	0)	(7	9	2)	8.218	1.362	6.04	39.5	54.2
[1	-2	1]	(2	1	0)	(7	5	3)	8.218	1.356	6.06	51.0	82.5
[3	-6	-19]	(2	1	0)	(5	-7	3)	8.218	1.350	6.09	85.3	50.3
[1	-2	3]	(2	1	0)	(5	7	3)	8.218	1.350	6.09	55.5	68.5
[3	-6	13]	(2	1	0)	(3	8	3)	8.218	1.350	6.09	61.9	60.4
[3	-6	-16]	(2	1	0)	(8	-4	3)	8.218	1.337	6.15	67.9	55.1
[1	-2	0]	(2	1	0)	(8	4	3)	8.218	1.337	6.15	49.4	90.0
[3	-6	-11]	(2	1	0)	(9	-1	3)	8.218	1.333	6.16	57.2	64.3
[3	-6	-7]	(2	1	0)	(9	1	3)	8.218	1.333	6.16	52.4	73.0
[3	-6	20]	(2	1	0)	(-4	8	3)	8.218	1.325	6.20	89.0	48.9
[1	-2	-4]	(2	1	0)	(4	8	-3)	8.218	1.325	6.20	58.2	62.3
[3	-6	13]	(2	1	0)	(-9	2	3)	8.218	1.322	6.21	59.8	60.4
[3	-6	-5]	(2	1	0)	(9	2	3)	8.218	1.322	6.21	50.3	77.7
[4	-8	-1]	(2	1	0)	(1	0	4)	8.218	1.317	6.24	86.4	88.1
[3	-6	-19]	(2	1	0)	(7	-6	3)	8.218	1.315	6.25	76.1	50.3
[3	-6	5]	(2	1	0)	(7	6	3)	8.218	1.315	6.25	49.9	77.7
[3	-6	19]	(2	1	0)	(-1	9	3)	8.218	1.315	6.25	76.1	50.3
[3	-6	17]	(2	1	0)	(1	9	3)	8.218	1.315	6.25	68.5	53.4
[2	-4	-7]	(2	1	0)	(9	8	-2)	8.218	1.313	6.26	33.2	65.4
[4	-8	3]	(2	1	0)	(-1	1	4)	8.218	1.313	6.26	88.3	84.4
[4	-8	1]	(2	1	0)	(1	1	4)	8.218	1.313	6.26	84.4	88.1
[3	-6	-20]	(2	1	0)	(6	-7	3)	8.218	1.312	6.26	81.8	48.9
[3	-6	-8]	(2	1	0)	(6	7	-3)	8.218	1.312	6.26	52.2	70.7
[1	-2	5]	(2	1	0)	(8	9	2)	8.218	1.309	6.28	36.4	56.8
[3	-6	20]	(2	1	0)	(-2	9	3)	8.218	1.305	6.30	79.9	48.9
[3	-6	16]	(2	1	0)	(2	9	3)	8.218	1.305	6.30	64.8	55.1
[1	-2	-6]	(2	1	0)	(8	-5	3)	8.218	1.304	6.30	70.5	51.8

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-6	2]	(2	1	0)	(8	5	3)	8.218	1.304	6.30	48.1	85.0
[1	-2	-1]	(2	1	0)	(2	-1	4)	8.218	1.303	6.31	84.7	82.5
[1	-2	0]	(2	1	0)	(2	1	4)	8.218	1.303	6.31	80.9	90.0
[4	-8	5]	(2	1	0)	(-1	2	4)	8.218	1.303	6.31	89.8	80.7
[4	-8	3]	(2	1	0)	(1	2	4)	8.218	1.303	6.31	82.6	84.4
[1	-2	-7]	(2	1	0)	(5	-8	3)	8.218	1.296	6.34	87.4	47.5
[3	-6	-11]	(2	1	0)	(5	8	-3)	8.218	1.296	6.34	54.8	64.3
[4	-8	-3]	(2	1	0)	(3	0	4)	8.218	1.291	6.37	79.3	84.4
[4	-8	5]	(2	1	0)	(3	-1	-4)	8.218	1.287	6.38	81.2	80.7
[4	-8	-1]	(2	1	0)	(3	1	4)	8.218	1.287	6.38	77.4	88.1
[4	-8	7]	(2	1	0)	(-1	3	4)	8.218	1.286	6.39	87.9	77.1
[4	-8	5]	(2	1	0)	(1	3	4)	8.218	1.286	6.39	80.8	80.7
[3	-6	-17]	(2	1	0)	(9	-4	3)	8.218	1.281	6.42	65.0	53.4
[3	-6	-1]	(2	1	0)	(9	4	3)	8.218	1.281	6.42	46.8	87.5
[4	-8	-7]	(2	1	0)	(3	-2	4)	8.218	1.278	6.43	83.2	77.1
[4	-8	1]	(2	1	0)	(3	2	4)	8.218	1.278	6.43	75.5	88.1
[1	-2	-2]	(2	1	0)	(2	-3	4)	8.218	1.277	6.44	88.6	75.3
[1	-2	1]	(2	1	0)	(2	3	4)	8.218	1.277	6.44	77.2	82.5
[1	-2	-7]	(2	1	0)	(7	-7	3)	8.218	1.271	6.46	78.5	47.5
[3	-6	7]	(2	1	0)	(7	7	3)	8.218	1.271	6.46	49.0	73.0
[3	-6	22]	(2	1	0)	(-4	9	3)	8.218	1.268	6.48	87.2	46.1
[3	-6	14]	(2	1	0)	(4	9	3)	8.218	1.268	6.48	57.6	58.6
[2	-4	-3]	(2	1	0)	(4	-1	4)	8.218	1.266	6.49	77.8	78.9
[2	-4	-1]	(2	1	0)	(4	1	4)	8.218	1.266	6.49	74.0	86.3
[3	-6	-22]	(2	1	0)	(6	-8	3)	8.218	1.262	6.51	84.0	46.1
[3	-6	10]	(2	1	0)	(6	8	3)	8.218	1.262	6.51	51.5	66.4
[4	-8	-9]	(2	1	0)	(3	-3	4)	8.218	1.262	6.51	85.1	73.6
[4	-8	3]	(2	1	0)	(3	3	4)	8.218	1.262	6.51	73.8	84.4
[2	-4	9]	(2	1	0)	(9	9	2)	8.218	1.257	6.54	33.6	59.5
[3	-6	-1]	(2	1	0)	(9	5	-3)	8.218	1.252	6.56	45.4	87.5
[4	-8	5]	(2	1	0)	(5	0	-4)	8.218	1.243	6.61	72.6	80.7
[3	-6	13]	(2	1	0)	(5	9	3)	8.218	1.242	6.62	54.2	60.4
[2	-4	-5]	(2	1	0)	(4	-3	4)	8.218	1.242	6.62	81.8	71.9
[2	-4	1]	(2	1	0)	(4	3	4)	8.218	1.242	6.62	70.5	86.3
[4	-8	-7]	(2	1	0)	(5	-1	4)	8.218	1.240	6.63	74.6	77.1
[4	-8	-3]	(2	1	0)	(5	1	4)	8.218	1.240	6.63	70.8	84.4
[4	-8	-11]	(2	1	0)	(3	-4	4)	8.218	1.240	6.63	87.1	70.2
[4	-8	5]	(2	1	0)	(3	4	4)	8.218	1.240	6.63	72.2	80.7
[4	-8	-11]	(2	1	0)	(-1	5	-4)	8.218	1.236	6.65	84.3	70.2
[4	-8	-9]	(2	1	0)	(-1	-5	4)	8.218	1.236	6.65	77.4	73.6
[4	-8	-9]	(2	1	0)	(5	-2	4)	8.218	1.231	6.67	76.6	73.6
[4	-8	-1]	(2	1	0)	(5	2	4)	8.218	1.231	6.67	69.0	88.1
[3	-6	-22]	(2	1	0)	(8	-7	3)	8.218	1.228	6.69	75.4	46.1
[1	-2	2]	(2	1	0)	(8	7	3)	8.218	1.228	6.69	46.2	75.3
[1	-2	3]	(2	1	0)	(-2	5	4)	8.218	1.228	6.69	87.7	68.5
[1	-2	2]	(2	1	0)	(2	5	4)	8.218	1.228	6.69	74.0	75.3
[1	-2	3]	(2	1	0)	(7	8	3)	8.218	1.226	6.71	48.4	68.5
[4	-8	-11]	(2	1	0)	(5	-3	4)	8.218	1.217	6.75	78.5	70.2

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Anthophyllite (210) 479 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[4	-8	1]	(2	1	0)	(5	3	4)	8.218	1.217	6.75	67.3	88.1
[4	-8	-13]	(2	1	0)	(3	-5	4)	8.218	1.214	6.77	88.9	66.9
[4	-8	7]	(2	1	0)	(3	5	4)	8.218	1.214	6.77	70.7	77.1
[1	-2	-2]	(2	1	0)	(6	-1	4)	8.218	1.211	6.79	71.5	75.3
[1	-2	-1]	(2	1	0)	(6	1	4)	8.218	1.211	6.79	67.7	82.5
[4	-8	13]	(2	1	0)	(-1	6	4)	8.218	1.205	6.82	82.7	66.9
[4	-8	11]	(2	1	0)	(1	6	4)	8.218	1.205	6.82	75.9	70.2
[4	-8	-13]	(2	1	0)	(5	-4	4)	8.218	1.198	6.86	80.5	66.9
[4	-8	3]	(2	1	0)	(5	4	4)	8.218	1.198	6.86	65.8	84.4
[2	-4	-7]	(2	1	0)	(4	-5	4)	8.218	1.196	6.87	85.6	65.4
[2	-4	-3]	(2	1	0)	(4	5	-4)	8.218	1.196	6.87	67.5	78.9
[1	-2	3]	(2	1	0)	(-6	3	4)	8.218	1.189	6.91	75.5	68.5
[1	-2	0]	(2	1	0)	(6	3	4)	8.218	1.189	6.91	64.3	90.0
[3	-6	8]	(2	1	0)	(8	8	3)	8.218	1.187	6.92	45.6	70.7
[3	-6	5]	(2	1	0)	(9	7	3)	8.218	1.185	6.94	43.6	77.7
[4	-8	15]	(2	1	0)	(-3	6	4)	8.218	1.185	6.94	89.3	63.8
[4	-8	9]	(2	1	0)	(3	6	4)	8.218	1.185	6.94	69.3	73.6
[4	-8	-7]	(2	1	0)	(7	0	4)	8.218	1.181	6.96	66.6	77.1
[3	-6	11]	(2	1	0)	(7	9	3)	8.218	1.179	6.97	48.0	64.3
[4	-8	-9]	(2	1	0)	(7	-1	4)	8.218	1.178	6.97	68.5	73.6
[4	-8	-5]	(2	1	0)	(7	1	4)	8.218	1.178	6.97	64.8	80.7
[4	-8	-15]	(2	1	0)	(5	-5	4)	8.218	1.174	7.00	82.5	63.8
[4	-8	5]	(2	1	0)	(5	5	4)	8.218	1.174	7.00	64.4	80.7
[4	-8	11]	(2	1	0)	(-7	2	4)	8.218	1.171	7.02	70.5	70.2
[4	-8	-3]	(2	1	0)	(7	2	4)	8.218	1.171	7.02	63.0	84.4
[4	-8	15]	(2	1	0)	(-1	7	4)	8.218	1.171	7.02	81.1	63.8
[4	-8	13]	(2	1	0)	(1	7	4)	8.218	1.171	7.02	74.6	66.9
[1	-2	4]	(2	1	0)	(-2	7	4)	8.218	1.164	7.06	84.4	62.3
[1	-2	3]	(2	1	0)	(2	7	4)	8.218	1.164	7.06	71.3	68.5
[4	-8	-13]	(2	1	0)	(7	-3	4)	8.218	1.158	7.09	72.5	66.9
[4	-8	-1]	(2	1	0)	(7	3	4)	8.218	1.158	7.09	61.4	88.1
[4	-8	17]	(2	1	0)	(-3	7	4)	8.218	1.152	7.13	87.7	60.9
[4	-8	-11]	(2	1	0)	(3	7	-4)	8.218	1.152	7.13	68.1	70.2
[1	-2	4]	(2	1	0)	(-6	5	4)	8.218	1.149	7.15	79.4	62.3
[1	-2	1]	(2	1	0)	(6	5	4)	8.218	1.149	7.15	61.4	82.5
[3	-6	-7]	(2	1	0)	(9	8	-3)	8.218	1.148	7.16	43.0	73.0
[4	-8	17]	(2	1	0)	(-5	6	4)	8.218	1.148	7.16	84.3	60.9
[4	-8	7]	(2	1	0)	(5	6	4)	8.218	1.148	7.16	63.1	77.1
[3	-6	10]	(2	1	0)	(8	9	3)	8.218	1.145	7.18	45.2	66.4
[2	-4	-5]	(2	1	0)	(8	-1	4)	8.218	1.144	7.18	65.8	71.9
[2	-4	-3]	(2	1	0)	(8	1	4)	8.218	1.144	7.18	62.0	78.9
[4	-8	-15]	(2	1	0)	(7	-4	4)	8.218	1.142	7.20	74.5	63.8
[4	-8	-1]	(2	1	0)	(7	4	-4)	8.218	1.142	7.20	59.9	88.1
[2	-4	-9]	(2	1	0)	(4	-7	4)	8.218	1.137	7.23	89.2	59.5
[2	-4	5]	(2	1	0)	(4	7	4)	8.218	1.137	7.23	65.0	71.9
[4	-8	17]	(2	1	0)	(-1	8	4)	8.218	1.135	7.24	79.7	60.9
[4	-8	15]	(2	1	0)	(1	8	4)	8.218	1.135	7.24	73.3	63.8
[2	-4	-7]	(2	1	0)	(8	-3	4)	8.218	1.126	7.30	69.8	65.4

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Anthophyllite (210) 479 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[2	-4	-1]	(2	1	0)	(8	3	4)	8.218	1.126	7.30	58.7	86.3
[4	-8	17]	(2	1	0)	(-7	5	4)	8.218	1.121	7.33	76.5	60.9
[4	-8	3]	(2	1	0)	(7	5	4)	8.218	1.121	7.33	58.6	84.4
[4	-8	-19]	(2	1	0)	(5	-7	4)	8.218	1.118	7.35	86.1	58.1
[4	-8	9]	(2	1	0)	(5	7	4)	8.218	1.118	7.35	62.0	73.6
[4	-8	13]	(2	1	0)	(3	8	4)	8.218	1.118	7.35	67.0	66.9
[4	-8	-9]	(2	1	0)	(9	0	4)	8.218	1.111	7.40	61.3	73.6
[4	-8	-7]	(2	1	0)	(9	1	4)	8.218	1.109	7.41	59.5	77.1
[4	-8	13]	(2	1	0)	(-9	2	4)	8.218	1.102	7.46	65.2	66.9
[4	-8	-5]	(2	1	0)	(9	2	4)	8.218	1.102	7.46	57.8	80.7
[4	-8	-19]	(2	1	0)	(7	-6	4)	8.218	1.098	7.48	78.5	58.1
[4	-8	-5]	(2	1	0)	(7	6	-4)	8.218	1.098	7.48	57.4	80.7
[4	-8	19]	(2	1	0)	(-1	9	4)	8.218	1.098	7.49	78.4	58.1
[4	-8	17]	(2	1	0)	(1	9	4)	8.218	1.098	7.49	72.2	60.9
[1	-2	-5]	(2	1	0)	(6	-7	4)	8.218	1.096	7.50	83.2	56.8
[1	-2	-2]	(2	1	0)	(6	7	-4)	8.218	1.096	7.50	59.2	75.3
[1	-2	-5]	(2	1	0)	(2	-9	4)	8.218	1.092	7.52	81.5	56.8
[1	-2	4]	(2	1	0)	(2	9	4)	8.218	1.092	7.52	69.1	62.3
[4	-8	-15]	(2	1	0)	(9	-3	4)	8.218	1.092	7.53	67.2	63.8
[4	-8	-3]	(2	1	0)	(9	3	4)	8.218	1.092	7.53	56.2	84.4
[2	-4	-9]	(2	1	0)	(8	-5	4)	8.218	1.092	7.53	73.8	59.5
[2	-4	1]	(2	1	0)	(8	5	4)	8.218	1.092	7.53	56.0	86.3
[4	-8	-21]	(2	1	0)	(5	-8	4)	8.218	1.087	7.56	87.8	55.5
[4	-8	-11]	(2	1	0)	(5	8	-4)	8.218	1.087	7.56	61.1	70.2
[4	-8	21]	(2	1	0)	(-3	9	4)	8.218	1.083	7.59	84.6	55.5
[4	-8	15]	(2	1	0)	(3	9	4)	8.218	1.083	7.59	66.1	63.8
[4	-8	-17]	(2	1	0)	(9	-4	4)	8.218	1.078	7.62	69.2	60.9
[4	-8	-1]	(2	1	0)	(9	4	4)	8.218	1.078	7.62	54.8	88.1
[4	-8	-21]	(2	1	0)	(7	-7	4)	8.218	1.072	7.66	80.3	55.5
[4	-8	7]	(2	1	0)	(7	7	4)	8.218	1.072	7.66	56.4	77.1
[2	-4	11]	(2	1	0)	(-4	9	4)	8.218	1.070	7.68	87.6	54.2
[2	-4	7]	(2	1	0)	(4	9	4)	8.218	1.070	7.68	63.1	65.4
[4	-8	-19]	(2	1	0)	(9	-5	4)	8.218	1.061	7.75	71.2	58.1
[4	-8	-1]	(2	1	0)	(9	5	-4)	8.218	1.061	7.75	53.5	88.1
[5	-10	1]	(2	1	0)	(-1	0	5)	8.218	1.054	7.79	87.1	88.5
[4	-8	-23]	(2	1	0)	(5	-9	4)	8.218	1.054	7.79	89.4	53.0
[4	-8	13]	(2	1	0)	(5	9	4)	8.218	1.054	7.79	60.2	66.9
[5	-10	2]	(2	1	0)	(0	1	5)	8.218	1.054	7.80	88.5	87.0
[5	-10	-3]	(2	1	0)	(1	-1	5)	8.218	1.052	7.81	88.7	85.5
[5	-10	1]	(2	1	0)	(1	1	5)	8.218	1.052	7.81	85.6	88.5
[5	-10	-2]	(2	1	0)	(2	0	5)	8.218	1.049	7.83	84.2	87.0
[5	-10	-4]	(2	1	0)	(2	-1	5)	8.218	1.047	7.85	85.8	84.0
[1	-2	0]	(2	1	0)	(2	1	5)	8.218	1.047	7.85	82.7	90.0
[1	-2	1]	(2	1	0)	(-1	2	5)	8.218	1.047	7.85	89.8	82.5
[5	-10	-3]	(2	1	0)	(1	2	-5)	8.218	1.047	7.85	84.0	85.5
[2	-4	11]	(2	1	0)	(-8	7	4)	8.218	1.046	7.86	77.6	54.2
[2	-4	3]	(2	1	0)	(8	7	4)	8.218	1.046	7.86	53.9	78.9
[4	-8	-23]	(2	1	0)	(7	-8	4)	8.218	1.044	7.87	82.1	53.0

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Anthophyllite (210) 479 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[4	-8	9]	(2	1	0)	(7	8	4)	8.218	1.044	7.87	55.6	73.6
[5	-10	-6]	(2	1	0)	(2	-2	5)	8.218	1.042	7.89	87.3	81.1
[5	-10	2]	(2	1	0)	(2	2	5)	8.218	1.042	7.89	81.2	87.0
[4	-8	21]	(2	1	0)	(9	-6	-4)	8.218	1.041	7.89	73.2	55.5
[4	-8	3]	(2	1	0)	(9	6	4)	8.218	1.041	7.89	52.4	84.4
[5	-10	-3]	(2	1	0)	(3	0	5)	8.218	1.041	7.90	81.4	85.5
[5	-10	6]	(2	1	0)	(0	3	5)	8.218	1.040	7.90	85.4	81.1
[1	-2	-1]	(2	1	0)	(3	-1	5)	8.218	1.039	7.91	82.9	82.5
[5	-10	-1]	(2	1	0)	(3	1	5)	8.218	1.039	7.91	79.8	88.5
[5	-10	7]	(2	1	0)	(-1	3	5)	8.218	1.038	7.92	88.3	79.6
[1	-2	1]	(2	1	0)	(1	3	5)	8.218	1.038	7.92	82.5	82.5
[1	-2	-6]	(2	1	0)	(6	-9	4)	8.218	1.036	7.93	86.6	51.8
[1	-2	3]	(2	1	0)	(6	9	4)	8.218	1.036	7.93	57.5	68.5
[5	-10	-7]	(2	1	0)	(3	-2	5)	8.218	1.034	7.95	84.5	79.6
[5	-10	1]	(2	1	0)	(3	2	5)	8.218	1.034	7.95	78.3	88.5
[5	-10	-8]	(2	1	0)	(2	-3	5)	8.218	1.033	7.95	88.9	78.2
[5	-10	4]	(2	1	0)	(2	3	5)	8.218	1.033	7.95	79.7	84.0
[5	-10	-4]	(2	1	0)	(4	0	5)	8.218	1.030	7.98	78.6	84.0
[5	-10	-6]	(2	1	0)	(4	-1	5)	8.218	1.028	8.00	80.2	81.1
[5	-10	-2]	(2	1	0)	(4	1	5)	8.218	1.028	8.00	77.1	87.0
[5	-10	9]	(2	1	0)	(-1	4	5)	8.218	1.026	8.01	86.8	76.7
[5	-10	7]	(2	1	0)	(1	4	5)	8.218	1.026	8.01	81.1	79.6
[5	-10	-9]	(2	1	0)	(3	-3	5)	8.218	1.025	8.01	86.1	76.7
[5	-10	3]	(2	1	0)	(3	3	5)	8.218	1.025	8.01	76.9	85.5
[5	-10	-8]	(2	1	0)	(4	-2	5)	8.218	1.023	8.03	81.7	78.2
[1	-2	0]	(2	1	0)	(4	2	5)	8.218	1.023	8.03	75.6	90.0
[1	-2	2]	(2	1	0)	(-2	4	5)	8.218	1.021	8.04	89.6	75.3
[5	-10	6]	(2	1	0)	(2	4	5)	8.218	1.021	8.04	78.3	81.1
[4	-8	5]	(2	1	0)	(9	7	4)	8.218	1.019	8.07	51.5	80.7
[4	-8	-25]	(2	1	0)	(7	-9	4)	8.218	1.015	8.09	83.9	50.7
[4	-8	11]	(2	1	0)	(7	9	4)	8.218	1.015	8.09	54.9	70.2
[1	-2	-2]	(2	1	0)	(4	-3	5)	8.218	1.015	8.10	83.3	75.3
[5	-10	2]	(2	1	0)	(4	3	5)	8.218	1.015	8.10	74.2	87.0
[5	-10	-7]	(2	1	0)	(5	-1	5)	8.218	1.014	8.11	77.4	79.6
[5	-10	-3]	(2	1	0)	(5	1	5)	8.218	1.014	8.11	74.4	85.5
[5	-10	-11]	(2	1	0)	(3	-4	5)	8.218	1.014	8.11	87.6	73.9
[1	-2	1]	(2	1	0)	(3	4	5)	8.218	1.014	8.11	75.5	82.5
[5	-10	11]	(2	1	0)	(-1	5	5)	8.218	1.011	8.13	85.3	73.9
[5	-10	9]	(2	1	0)	(1	5	5)	8.218	1.011	8.13	79.7	76.7
[5	-10	-9]	(2	1	0)	(5	-2	5)	8.218	1.009	8.14	79.0	76.7
[5	-10	-1]	(2	1	0)	(5	2	5)	8.218	1.009	8.14	72.9	88.5
[5	-10	12]	(2	1	0)	(-2	5	5)	8.218	1.007	8.16	88.1	72.5
[5	-10	8]	(2	1	0)	(2	5	5)	8.218	1.007	8.16	76.9	78.2
[5	-10	-12]	(2	1	0)	(4	-4	5)	8.218	1.003	8.19	84.8	72.5
[5	-10	4]	(2	1	0)	(4	4	5)	8.218	1.003	8.19	72.8	84.0
[5	-10	11]	(2	1	0)	(5	-3	-5)	8.218	1.001	8.21	80.6	73.9
[5	-10	-1]	(2	1	0)	(-5	-3	5)	8.218	1.001	8.21	71.5	88.5

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Anthophyllite (220) 481 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[1	-1	-1]	(2	2	0)	(1	0	1)	6.432	5.077	1.27	79.0	78.4
[1	-1	1]	(2	2	0)	(0	1	1)	6.432	5.064	1.27	78.3	78.4
[1	-1	2]	(2	2	0)	(-1	1	1)	6.432	4.885	1.32	89.3	67.7
[1	-1	0]	(2	2	0)	(1	1	1)	6.432	4.885	1.32	67.7	90.0
[1	-1	-2]	(2	2	0)	(2	0	1)	6.432	4.586	1.40	69.8	67.7
[1	-1	-3]	(2	2	0)	(2	-1	1)	6.432	4.442	1.45	81.0	58.4
[1	-1	-1]	(2	2	0)	(2	1	1)	6.432	4.442	1.45	59.2	78.4
[1	-1	3]	(2	2	0)	(-1	2	1)	6.432	4.416	1.46	79.1	58.4
[1	-1	1]	(2	2	0)	(1	2	1)	6.432	4.416	1.46	58.6	78.4
[1	-1	4]	(2	2	0)	(-2	2	1)	6.432	4.081	1.58	88.8	50.6
[1	-1	0]	(2	2	0)	(2	2	-1)	6.432	4.081	1.58	50.6	90.0
[1	-1	-3]	(2	2	0)	(3	0	1)	6.432	4.011	1.60	63.1	58.4
[1	-1	3]	(2	2	0)	(0	3	1)	6.432	3.954	1.63	61.6	58.4
[1	-1	-4]	(2	2	0)	(3	-1	1)	6.432	3.914	1.64	73.5	50.6
[1	-1	2]	(2	2	0)	(3	1	-1)	6.432	3.914	1.64	53.2	67.7
[1	-1	4]	(2	2	0)	(-1	3	1)	6.432	3.867	1.66	71.3	50.6
[1	-1	2]	(2	2	0)	(1	3	1)	6.432	3.867	1.66	52.3	67.7
[1	-1	-1]	(2	2	0)	(3	2	1)	6.432	3.660	1.76	45.0	78.4
[1	-1	-1]	(2	2	0)	(2	3	-1)	6.432	3.636	1.77	44.7	78.4
[1	-1	4]	(2	2	0)	(-4	0	1)	6.432	3.479	1.85	58.5	50.6
[1	-1	3]	(2	2	0)	(4	1	-1)	6.432	3.415	1.88	49.4	58.4
[1	-1	3]	(2	2	0)	(1	4	1)	6.432	3.357	1.92	48.3	58.4
[1	-1	0]	(2	2	0)	(3	3	-1)	6.432	3.329	1.93	39.1	90.0
[1	-1	-2]	(2	2	0)	(4	2	1)	6.432	3.243	1.98	41.6	67.7
[1	-1	2]	(2	2	0)	(2	4	1)	6.432	3.203	2.01	41.0	67.7
[1	-1	-1]	(2	2	0)	(4	3	1)	6.432	3.005	2.14	35.5	78.4
[1	-1	-4]	(2	2	0)	(5	1	1)	6.432	2.988	2.15	47.0	50.6
[1	-1	1]	(2	2	0)	(3	4	1)	6.432	2.987	2.15	35.3	78.4
[1	-1	4]	(2	2	0)	(1	5	1)	6.432	2.926	2.20	45.8	50.6
[1	-1	-3]	(2	2	0)	(5	2	1)	6.432	2.870	2.24	39.7	58.4
[1	-1	3]	(2	2	0)	(2	5	1)	6.432	2.822	2.28	38.9	58.4
[1	-1	0]	(2	2	0)	(4	4	-1)	6.432	2.747	2.34	31.3	90.0
[1	-1	-2]	(2	2	0)	(5	3	1)	6.432	2.702	2.38	33.6	67.7
[1	-1	2]	(2	2	0)	(3	5	1)	6.432	2.671	2.41	33.1	67.7
[1	-1	0]	(2	2	0)	(0	0	2)	6.432	2.640	2.44	90.0	90.0
[2	-2	1]	(2	2	0)	(1	0	-2)	6.432	2.614	2.46	84.4	84.1
[1	-1	1]	(2	2	0)	(-1	1	2)	6.432	2.586	2.49	89.6	78.4
[1	-1	0]	(2	2	0)	(1	1	2)	6.432	2.586	2.49	78.4	90.0
[1	-1	4]	(2	2	0)	(6	2	-1)	6.432	2.552	2.52	38.7	50.6
[2	-2	-3]	(2	2	0)	(2	-1	2)	6.432	2.513	2.56	84.9	72.9
[2	-2	-1]	(2	2	0)	(2	1	2)	6.432	2.513	2.56	73.2	84.1
[1	-1	1]	(2	2	0)	(5	4	-1)	6.432	2.509	2.56	29.0	78.4
[2	-2	-3]	(2	2	0)	(1	-2	2)	6.432	2.509	2.56	83.8	72.9
[2	-2	1]	(2	2	0)	(1	2	2)	6.432	2.509	2.56	72.8	84.1
[1	-1	4]	(2	2	0)	(2	6	1)	6.432	2.501	2.57	37.8	50.6
[1	-1	-1]	(2	2	0)	(4	5	-1)	6.432	2.495	2.58	28.8	78.4
[1	-1	3]	(2	2	0)	(6	3	-1)	6.432	2.431	2.65	32.7	58.4
[2	-2	3]	(2	2	0)	(-3	0	2)	6.432	2.427	2.65	74.1	72.9

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[1	-1	-2]	(2	2	0)	(3	-1	2)	6.432	2.405	2.67	79.9	67.7
[1	-1	-1]	(2	2	0)	(3	1	2)	6.432	2.405	2.67	68.4	78.4
[1	-1	2]	(2	2	0)	(-1	3	2)	6.432	2.394	2.69	78.6	67.7
[1	-1	1]	(2	2	0)	(1	3	2)	6.432	2.394	2.69	67.8	78.4
[1	-1	3]	(2	2	0)	(3	6	1)	6.432	2.394	2.69	32.2	58.4
[2	-2	-5]	(2	2	0)	(3	-2	2)	6.432	2.342	2.75	85.6	62.9
[2	-2	-1]	(2	2	0)	(3	2	2)	6.432	2.342	2.75	63.1	84.1
[2	-2	5]	(2	2	0)	(-2	3	2)	6.432	2.336	2.75	83.9	62.9
[2	-2	-1]	(2	2	0)	(2	3	-2)	6.432	2.336	2.75	62.8	84.1
[1	-1	0]	(2	2	0)	(5	5	-1)	6.432	2.313	2.78	26.0	90.0
[1	-1	-2]	(2	2	0)	(6	4	1)	6.432	2.288	2.81	27.9	67.7
[2	-2	-5]	(2	2	0)	(4	-1	2)	6.432	2.274	2.83	75.5	62.9
[2	-2	-3]	(2	2	0)	(4	1	2)	6.432	2.274	2.83	64.3	72.9
[1	-1	2]	(2	2	0)	(0	4	2)	6.432	2.274	2.83	68.6	67.7
[1	-1	-2]	(2	2	0)	(4	6	-1)	6.432	2.265	2.84	27.6	67.7
[2	-2	5]	(2	2	0)	(-1	4	2)	6.432	2.257	2.85	73.9	62.9
[2	-2	3]	(2	2	0)	(1	4	2)	6.432	2.257	2.85	63.4	72.9
[1	-1	3]	(2	2	0)	(-3	3	2)	6.432	2.248	2.86	89.0	58.4
[1	-1	0]	(2	2	0)	(3	3	-2)	6.432	2.248	2.86	58.4	90.0
[2	-2	-5]	(2	2	0)	(5	0	2)	6.432	2.149	2.99	66.2	62.9
[2	-2	-7]	(2	2	0)	(4	-3	2)	6.432	2.140	3.01	86.3	54.3
[2	-2	-1]	(2	2	0)	(4	3	2)	6.432	2.140	3.01	54.6	84.1
[1	-1	-1]	(2	2	0)	(6	5	1)	6.432	2.136	3.01	24.4	78.4
[1	-1	3]	(2	2	0)	(5	-1	-2)	6.432	2.134	3.01	71.6	58.4
[1	-1	2]	(2	2	0)	(5	1	-2)	6.432	2.134	3.01	60.9	67.7
[2	-2	7]	(2	2	0)	(-3	4	2)	6.432	2.133	3.01	84.1	54.3
[2	-2	1]	(2	2	0)	(3	4	2)	6.432	2.133	3.01	54.3	84.1
[1	-1	1]	(2	2	0)	(5	6	1)	6.432	2.126	3.03	24.3	78.4
[1	-1	3]	(2	2	0)	(-1	5	2)	6.432	2.111	3.05	69.9	58.4
[1	-1	2]	(2	2	0)	(1	5	2)	6.432	2.111	3.05	59.8	67.7
[1	-1	-3]	(2	2	0)	(7	4	1)	6.432	2.090	3.08	27.7	58.4
[2	-2	-7]	(2	2	0)	(5	-2	2)	6.432	2.090	3.08	77.0	54.3
[2	-2	-3]	(2	2	0)	(5	2	2)	6.432	2.090	3.08	55.9	72.9
[2	-2	7]	(2	2	0)	(-2	5	2)	6.432	2.071	3.11	74.9	54.3
[2	-2	3]	(2	2	0)	(2	5	2)	6.432	2.071	3.11	55.2	72.9
[1	-1	3]	(2	2	0)	(4	7	1)	6.432	2.060	3.12	27.3	58.4
[1	-1	4]	(2	2	0)	(-5	3	2)	6.432	2.022	3.18	82.2	50.6
[1	-1	-1]	(2	2	0)	(5	3	2)	6.432	2.022	3.18	51.4	78.4
[1	-1	4]	(2	2	0)	(-3	5	2)	6.432	2.009	3.20	79.8	50.6
[1	-1	1]	(2	2	0)	(3	5	2)	6.432	2.009	3.20	51.0	78.4
[2	-2	-7]	(2	2	0)	(6	-1	2)	6.432	1.993	3.23	68.3	54.3
[2	-2	-5]	(2	2	0)	(6	1	2)	6.432	1.993	3.23	58.0	62.9
[1	-1	0]	(2	2	0)	(6	6	-1)	6.432	1.986	3.24	22.1	90.0
[1	-1	2]	(2	2	0)	(7	5	-1)	6.432	1.972	3.26	23.8	67.7
[2	-2	7]	(2	2	0)	(-1	6	2)	6.432	1.966	3.27	66.4	54.3
[2	-2	5]	(2	2	0)	(1	6	2)	6.432	1.966	3.27	56.8	62.9
[1	-1	-2]	(2	2	0)	(5	7	-1)	6.432	1.954	3.29	23.6	67.7
[2	-2	-9]	(2	2	0)	(5	-4	2)	6.432	1.937	3.32	87.0	47.3

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Anthophyllite (220) 481 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[2	-2	1]	(2	2	0)	(5	4	-2)	6.432	1.937	3.32	47.5	84.1
[2	-2	9]	(2	2	0)	(-4	5	2)	6.432	1.931	3.33	84.4	47.3
[2	-2	-1]	(2	2	0)	(4	5	-2)	6.432	1.931	3.33	47.3	84.1
[1	-1	-4]	(2	2	0)	(8	4	1)	6.432	1.915	3.36	28.0	50.6
[2	-2	-9]	(2	2	0)	(6	-3	2)	6.432	1.901	3.38	78.5	47.3
[2	-2	3]	(2	2	0)	(6	3	-2)	6.432	1.901	3.38	48.9	72.9
[2	-2	-9]	(2	2	0)	(3	-6	2)	6.432	1.883	3.42	76.0	47.3
[2	-2	3]	(2	2	0)	(3	6	2)	6.432	1.883	3.42	48.3	72.9
[1	-1	4]	(2	2	0)	(4	8	1)	6.432	1.882	3.42	27.5	50.6
[2	-2	-7]	(2	2	0)	(7	0	2)	6.432	1.868	3.44	60.6	54.3
[1	-1	-4]	(2	2	0)	(7	-1	2)	6.432	1.858	3.46	65.5	50.6
[1	-1	-3]	(2	2	0)	(7	1	2)	6.432	1.858	3.46	55.7	58.4
[1	-1	-1]	(2	2	0)	(7	6	1)	6.432	1.852	3.47	21.0	78.4
[1	-1	-1]	(2	2	0)	(6	7	-1)	6.432	1.844	3.49	20.9	78.4
[1	-1	0]	(2	2	0)	(-5	-5	2)	6.432	1.843	3.49	44.3	90.0
[2	-2	-9]	(2	2	0)	(7	-2	2)	6.432	1.828	3.52	70.5	47.3
[2	-2	-5]	(2	2	0)	(7	2	2)	6.432	1.828	3.52	51.1	62.9
[1	-1	4]	(2	2	0)	(-1	7	2)	6.432	1.828	3.52	63.6	50.6
[1	-1	3]	(2	2	0)	(1	7	2)	6.432	1.828	3.52	54.4	58.4
[1	-1	3]	(2	2	0)	(8	5	-1)	6.432	1.823	3.53	23.9	58.4
[2	-2	9]	(2	2	0)	(-2	7	2)	6.432	1.802	3.57	68.2	47.3
[2	-2	5]	(2	2	0)	(2	7	2)	6.432	1.802	3.57	50.1	62.9
[1	-1	3]	(2	2	0)	(5	8	1)	6.432	1.800	3.57	23.6	58.4
[1	-1	2]	(2	2	0)	(7	3	-2)	6.432	1.782	3.61	46.9	67.7
[1	-1	2]	(2	2	0)	(3	7	2)	6.432	1.760	3.65	46.1	67.7
[3	-3	-1]	(2	2	0)	(1	0	3)	6.432	1.752	3.67	86.2	86.1
[3	-3	1]	(2	2	0)	(0	1	3)	6.432	1.752	3.67	86.0	86.1
[2	-2	-1]	(2	2	0)	(6	5	2)	6.432	1.750	3.68	41.8	84.1
[3	-3	2]	(2	2	0)	(-1	1	3)	6.432	1.744	3.69	89.7	82.2
[1	-1	0]	(2	2	0)	(1	1	3)	6.432	1.744	3.69	82.2	90.0
[2	-2	1]	(2	2	0)	(5	6	2)	6.432	1.744	3.69	41.6	84.1
[1	-1	0]	(2	2	0)	(7	7	-1)	6.432	1.736	3.71	19.2	90.0
[2	-2	-9]	(2	2	0)	(8	-1	2)	6.432	1.731	3.72	63.2	47.3
[2	-2	-7]	(2	2	0)	(8	1	2)	6.432	1.731	3.72	53.8	54.3
[3	-3	-2]	(2	2	0)	(2	0	3)	6.432	1.729	3.72	82.5	82.2
[1	-1	-2]	(2	2	0)	(8	6	1)	6.432	1.727	3.72	20.7	67.7
[2	-2	-3]	(2	2	0)	(7	4	2)	6.432	1.724	3.73	43.1	72.9
[1	-1	-1]	(2	2	0)	(2	-1	3)	6.432	1.721	3.74	86.5	78.4
[3	-3	-1]	(2	2	0)	(2	1	3)	6.432	1.721	3.74	78.6	86.1
[1	-1	1]	(2	2	0)	(-1	2	3)	6.432	1.719	3.74	85.8	78.4
[3	-3	1]	(2	2	0)	(1	2	3)	6.432	1.719	3.74	78.3	86.1
[1	-1	2]	(2	2	0)	(6	8	1)	6.432	1.713	3.75	20.5	67.7
[1	-1	4]	(2	2	0)	(0	8	2)	6.432	1.707	3.77	56.8	50.6
[2	-2	9]	(2	2	0)	(-1	8	2)	6.432	1.700	3.78	61.2	47.3
[2	-2	7]	(2	2	0)	(1	8	2)	6.432	1.700	3.78	52.4	54.3
[3	-3	4]	(2	2	0)	(-2	2	3)	6.432	1.698	3.79	89.5	74.7
[1	-1	0]	(2	2	0)	(2	2	3)	6.432	1.698	3.79	74.7	90.0
[1	-1	-4]	(2	2	0)	(9	5	1)	6.432	1.689	3.81	24.4	50.6

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Anthophyllite (220) 481 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-3	-4]	(2	2	0)	(3	-1	3)	6.432	1.685	3.82	83.0	74.7
[3	-3	2]	(2	2	0)	(3	1	-3)	6.432	1.685	3.82	75.1	82.2
[3	-3	-4]	(2	2	0)	(1	-3	3)	6.432	1.681	3.83	82.0	74.7
[3	-3	2]	(2	2	0)	(1	3	3)	6.432	1.681	3.83	74.6	82.2
[2	-2	-5]	(2	2	0)	(8	3	2)	6.432	1.670	3.85	45.3	62.9
[1	-1	4]	(2	2	0)	(5	9	1)	6.432	1.663	3.87	24.0	50.6
[3	-3	5]	(2	2	0)	(-2	3	3)	6.432	1.661	3.87	85.7	71.1
[3	-3	1]	(2	2	0)	(2	3	3)	6.432	1.661	3.87	71.0	86.1
[1	-1	1]	(2	2	0)	(7	5	-2)	6.432	1.656	3.88	39.8	78.4
[1	-1	-1]	(2	2	0)	(-5	-7	2)	6.432	1.645	3.91	39.5	78.4
[2	-2	5]	(2	2	0)	(3	8	2)	6.432	1.645	3.91	44.4	62.9
[3	-3	-4]	(2	2	0)	(4	0	3)	6.432	1.645	3.91	75.7	74.7
[3	-3	5]	(2	2	0)	(4	-1	-3)	6.432	1.638	3.93	79.6	71.1
[1	-1	1]	(2	2	0)	(-4	-1	3)	6.432	1.638	3.93	71.8	78.4
[3	-3	5]	(2	2	0)	(-1	4	3)	6.432	1.631	3.94	78.4	71.1
[1	-1	1]	(2	2	0)	(1	4	3)	6.432	1.631	3.94	71.1	78.4
[1	-1	-2]	(2	2	0)	(4	-2	3)	6.432	1.618	3.98	83.5	67.7
[3	-3	-2]	(2	2	0)	(4	2	3)	6.432	1.618	3.98	68.1	82.2
[1	-1	-4]	(2	2	0)	(9	1	2)	6.432	1.615	3.98	52.3	50.6
[1	-1	2]	(2	2	0)	(-2	4	3)	6.432	1.613	3.99	82.1	67.7
[3	-3	2]	(2	2	0)	(2	4	3)	6.432	1.613	3.99	67.7	82.2
[1	-1	3]	(2	2	0)	(9	6	-1)	6.432	1.612	3.99	21.0	58.4
[2	-2	-7]	(2	2	0)	(9	2	2)	6.432	1.596	4.03	48.1	54.3
[1	-1	-3]	(2	2	0)	(6	9	-1)	6.432	1.593	4.04	20.8	58.4
[3	-3	5]	(2	2	0)	(-5	0	3)	6.432	1.589	4.05	72.6	71.1
[3	-3	-7]	(2	2	0)	(4	-3	3)	6.432	1.586	4.06	87.3	64.4
[3	-3	-1]	(2	2	0)	(4	3	3)	6.432	1.586	4.06	64.6	86.1
[1	-1	-2]	(2	2	0)	(5	-1	3)	6.432	1.583	4.06	76.5	67.7
[3	-3	-4]	(2	2	0)	(5	1	3)	6.432	1.583	4.06	68.8	74.7
[2	-2	-1]	(2	2	0)	(7	6	2)	6.432	1.583	4.06	37.1	84.1
[3	-3	7]	(2	2	0)	(-3	4	3)	6.432	1.583	4.06	85.7	64.4
[3	-3	1]	(2	2	0)	(3	4	3)	6.432	1.583	4.06	64.4	86.1
[1	-1	4]	(2	2	0)	(1	9	2)	6.432	1.583	4.06	50.8	50.6
[3	-3	5]	(2	2	0)	(0	5	3)	6.432	1.579	4.07	71.5	71.1
[2	-2	-1]	(2	2	0)	(6	7	-2)	6.432	1.578	4.08	36.9	84.1
[1	-1	2]	(2	2	0)	(-1	5	3)	6.432	1.574	4.09	75.1	67.7
[3	-3	4]	(2	2	0)	(1	5	3)	6.432	1.574	4.09	68.0	74.7
[2	-2	7]	(2	2	0)	(2	9	2)	6.432	1.566	4.11	46.9	54.3
[1	-1	-3]	(2	2	0)	(9	3	2)	6.432	1.565	4.11	44.1	58.4
[3	-3	-7]	(2	2	0)	(5	-2	3)	6.432	1.565	4.11	80.3	64.4
[1	-1	-1]	(2	2	0)	(5	2	3)	6.432	1.565	4.11	65.2	78.4
[2	-2	3]	(2	2	0)	(8	5	-2)	6.432	1.565	4.11	38.3	72.9
[3	-3	7]	(2	2	0)	(-2	5	3)	6.432	1.557	4.13	78.7	64.4
[1	-1	1]	(2	2	0)	(2	5	3)	6.432	1.557	4.13	64.6	78.4
[2	-2	3]	(2	2	0)	(5	8	2)	6.432	1.550	4.15	37.9	72.9
[3	-3	8]	(2	2	0)	(-4	4	3)	6.432	1.544	4.17	89.1	61.3
[1	-1	0]	(2	2	0)	(4	4	-3)	6.432	1.544	4.17	61.3	90.0
[1	-1	-3]	(2	2	0)	(-3	-9	2)	6.432	1.538	4.18	43.2	58.4

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[1	-1	0]	(2	2	0)	(8	8	-1)	6.432	1.538	4.18	16.9	90.0
[3	-3	-8]	(2	2	0)	(5	-3	3)	6.432	1.536	4.19	84.1	61.3
[3	-3	-2]	(2	2	0)	(5	3	3)	6.432	1.536	4.19	61.7	82.2
[1	-1	2]	(2	2	0)	(9	7	-1)	6.432	1.533	4.20	18.3	67.7
[3	-3	8]	(2	2	0)	(-3	5	3)	6.432	1.530	4.20	82.3	61.3
[3	-3	2]	(2	2	0)	(3	5	3)	6.432	1.530	4.20	61.3	82.2
[2	-2	5]	(2	2	0)	(9	4	-2)	6.432	1.525	4.22	40.5	62.9
[3	-3	-7]	(2	2	0)	(6	-1	3)	6.432	1.523	4.22	73.6	64.4
[3	-3	-5]	(2	2	0)	(6	1	3)	6.432	1.523	4.22	66.1	71.1
[1	-1	2]	(2	2	0)	(7	9	1)	6.432	1.522	4.23	18.2	67.7
[3	-3	7]	(2	2	0)	(-1	6	3)	6.432	1.511	4.26	72.1	64.4
[3	-3	5]	(2	2	0)	(1	6	3)	6.432	1.511	4.26	65.1	71.1
[1	-1	0]	(2	2	0)	(7	7	2)	6.432	1.508	4.26	34.8	90.0
[3	-3	-8]	(2	2	0)	(6	-2	3)	6.432	1.507	4.27	77.4	61.3
[3	-3	4]	(2	2	0)	(6	2	-3)	6.432	1.507	4.27	62.6	74.7
[1	-1	-3]	(2	2	0)	(5	-4	3)	6.432	1.498	4.29	87.7	58.4
[3	-3	1]	(2	2	0)	(5	4	-3)	6.432	1.498	4.29	58.5	86.1
[3	-3	-8]	(2	2	0)	(2	-6	3)	6.432	1.496	4.30	75.6	61.3
[3	-3	4]	(2	2	0)	(2	6	3)	6.432	1.496	4.30	61.8	74.7
[1	-1	3]	(2	2	0)	(-4	5	3)	6.432	1.495	4.30	85.7	58.4
[3	-3	1]	(2	2	0)	(4	5	3)	6.432	1.495	4.30	58.3	86.1
[1	-1	-2]	(2	2	0)	(9	5	2)	6.432	1.477	4.35	37.2	67.7
[3	-3	7]	(2	2	0)	(7	0	-3)	6.432	1.465	4.39	67.3	64.4
[3	-3	-8]	(2	2	0)	(7	-1	3)	6.432	1.460	4.41	71.0	61.3
[1	-1	-2]	(2	2	0)	(7	1	3)	6.432	1.460	4.41	63.7	67.7
[1	-1	2]	(2	2	0)	(5	9	2)	6.432	1.460	4.41	36.7	67.7
[1	-1	-1]	(2	2	0)	(9	8	1)	6.432	1.455	4.42	16.3	78.4
[3	-3	10]	(2	2	0)	(-5	5	3)	6.432	1.453	4.43	88.9	55.6
[1	-1	0]	(2	2	0)	(5	5	-3)	6.432	1.453	4.43	55.6	90.0
[1	-1	-1]	(2	2	0)	(-8	-9	1)	6.432	1.450	4.44	16.3	78.4
[3	-3	7]	(2	2	0)	(0	7	3)	6.432	1.450	4.44	66.0	64.4
[3	-3	-10]	(2	2	0)	(6	-4	3)	6.432	1.446	4.45	84.6	55.6
[3	-3	-2]	(2	2	0)	(6	4	3)	6.432	1.446	4.45	56.0	82.2
[1	-1	-3]	(2	2	0)	(7	-2	3)	6.432	1.446	4.45	74.7	58.4
[3	-3	5]	(2	2	0)	(7	2	-3)	6.432	1.446	4.45	60.2	71.1
[3	-3	-8]	(2	2	0)	(1	-7	3)	6.432	1.445	4.45	69.4	61.3
[1	-1	2]	(2	2	0)	(1	7	3)	6.432	1.445	4.45	62.6	67.7
[3	-3	10]	(2	2	0)	(-4	6	3)	6.432	1.440	4.47	82.5	55.6
[3	-3	2]	(2	2	0)	(4	6	3)	6.432	1.440	4.47	55.7	82.2
[2	-2	-1]	(2	2	0)	(8	7	2)	6.432	1.438	4.47	33.2	84.1
[2	-2	-1]	(2	2	0)	(7	8	-2)	6.432	1.434	4.49	33.1	84.1
[1	-1	3]	(2	2	0)	(-2	7	3)	6.432	1.432	4.49	72.9	58.4
[3	-3	5]	(2	2	0)	(2	7	3)	6.432	1.432	4.49	59.3	71.1
[2	-2	3]	(2	2	0)	(9	6	-2)	6.432	1.425	4.51	34.4	72.9
[3	-3	-10]	(2	2	0)	(7	-3	3)	6.432	1.423	4.52	78.3	55.6
[3	-3	-4]	(2	2	0)	(7	3	3)	6.432	1.423	4.52	56.9	74.7
[2	-2	-3]	(2	2	0)	(6	9	-2)	6.432	1.412	4.55	34.0	72.9
[3	-3	-10]	(2	2	0)	(-3	7	-3)	6.432	1.411	4.56	76.3	55.6

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-3	4]	(2	2	0)	(3	7	3)	6.432	1.411	4.56	56.2	74.7
[3	-3	-11]	(2	2	0)	(6	-5	3)	6.432	1.406	4.58	88.0	53.1
[3	-3	-1]	(2	2	0)	(6	5	3)	6.432	1.406	4.58	53.2	86.1
[3	-3	11]	(2	2	0)	(-5	6	3)	6.432	1.403	4.59	85.7	53.1
[3	-3	1]	(2	2	0)	(5	6	3)	6.432	1.403	4.59	53.0	86.1
[3	-3	-8]	(2	2	0)	(8	0	3)	6.432	1.401	4.59	65.1	61.3
[1	-1	-3]	(2	2	0)	(8	-1	3)	6.432	1.396	4.61	68.7	58.4
[3	-3	-7]	(2	2	0)	(8	1	3)	6.432	1.396	4.61	61.6	64.4
[3	-3	-11]	(2	2	0)	(7	-4	3)	6.432	1.392	4.62	81.8	53.1
[1	-1	-1]	(2	2	0)	(7	4	3)	6.432	1.392	4.62	53.9	78.4
[3	-3	-10]	(2	2	0)	(8	-2	3)	6.432	1.384	4.65	72.2	55.6
[1	-1	-2]	(2	2	0)	(8	2	3)	6.432	1.384	4.65	58.2	67.7
[3	-3	11]	(2	2	0)	(-4	7	3)	6.432	1.383	4.65	79.6	53.1
[1	-1	1]	(2	2	0)	(4	7	3)	6.432	1.383	4.65	53.4	78.4
[1	-1	0]	(2	2	0)	(9	9	-1)	6.432	1.380	4.66	15.1	90.0
[1	-1	3]	(2	2	0)	(-1	8	3)	6.432	1.379	4.66	67.0	58.4
[3	-3	7]	(2	2	0)	(1	8	3)	6.432	1.379	4.66	60.3	64.4
[1	-1	1]	(2	2	0)	(-9	-7	2)	6.432	1.370	4.70	32.0	78.4
[3	-3	10]	(2	2	0)	(-2	8	3)	6.432	1.368	4.70	70.3	55.6
[1	-1	2]	(2	2	0)	(2	8	3)	6.432	1.368	4.70	57.2	67.7
[3	-3	-11]	(2	2	0)	(8	-3	3)	6.432	1.363	4.72	75.8	53.1
[3	-3	-5]	(2	2	0)	(8	3	3)	6.432	1.363	4.72	55.0	71.1
[1	-1	1]	(2	2	0)	(7	9	2)	6.432	1.362	4.72	31.8	78.4
[1	-1	-4]	(2	2	0)	(5	-7	3)	6.432	1.350	4.76	82.8	50.6
[3	-3	2]	(2	2	0)	(5	7	3)	6.432	1.350	4.76	50.7	82.2
[3	-3	11]	(2	2	0)	(-3	8	3)	6.432	1.350	4.77	73.7	53.1
[3	-3	5]	(2	2	0)	(3	8	3)	6.432	1.350	4.77	54.1	71.1
[1	-1	-4]	(2	2	0)	(8	-4	3)	6.432	1.337	4.81	79.2	50.6
[3	-3	-4]	(2	2	0)	(8	4	3)	6.432	1.337	4.81	51.9	74.7
[3	-3	-10]	(2	2	0)	(9	-1	3)	6.432	1.333	4.82	66.6	55.6
[3	-3	-8]	(2	2	0)	(9	1	3)	6.432	1.333	4.82	59.7	61.3
[1	-1	4]	(2	2	0)	(-4	8	3)	6.432	1.325	4.85	76.9	50.6
[3	-3	4]	(2	2	0)	(4	8	3)	6.432	1.325	4.85	51.3	74.7
[3	-3	11]	(2	2	0)	(9	-2	-3)	6.432	1.322	4.86	70.1	53.1
[3	-3	7]	(2	2	0)	(9	2	-3)	6.432	1.322	4.86	56.4	64.4
[4	-4	-1]	(2	2	0)	(1	0	4)	6.432	1.317	4.89	87.2	87.1
[3	-3	-13]	(2	2	0)	(7	-6	3)	6.432	1.315	4.89	88.3	48.4
[3	-3	-1]	(2	2	0)	(7	6	3)	6.432	1.315	4.89	48.5	86.1
[3	-3	10]	(2	2	0)	(-1	9	3)	6.432	1.315	4.89	64.8	55.6
[3	-3	8]	(2	2	0)	(1	9	3)	6.432	1.315	4.89	58.4	61.3
[2	-2	-1]	(2	2	0)	(9	8	2)	6.432	1.313	4.90	30.0	84.1
[1	-1	0]	(2	2	0)	(1	1	4)	6.432	1.313	4.90	84.1	90.0
[3	-3	13]	(2	2	0)	(-6	7	3)	6.432	1.312	4.90	85.8	48.4
[3	-3	-1]	(2	2	0)	(6	7	-3)	6.432	1.312	4.90	48.3	86.1
[2	-2	-1]	(2	2	0)	(8	9	-2)	6.432	1.309	4.91	29.9	84.1
[2	-2	-1]	(2	2	0)	(0	2	-4)	6.432	1.306	4.93	84.0	84.1
[3	-3	11]	(2	2	0)	(-2	9	3)	6.432	1.305	4.93	68.1	53.1
[3	-3	7]	(2	2	0)	(2	9	3)	6.432	1.305	4.93	55.3	64.4

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-3	-13]	(2	2	0)	(8	-5	3)	6.432	1.304	4.93	82.5	48.4
[1	-1	1]	(2	2	0)	(8	5	-3)	6.432	1.304	4.93	49.2	78.4
[4	-4	3]	(2	2	0)	(2	-1	-4)	6.432	1.303	4.94	87.4	81.3
[4	-4	-1]	(2	2	0)	(2	1	4)	6.432	1.303	4.94	81.4	87.1
[4	-4	3]	(2	2	0)	(-1	2	4)	6.432	1.303	4.94	86.8	81.3
[4	-4	1]	(2	2	0)	(1	2	4)	6.432	1.303	4.94	81.2	87.1
[3	-3	13]	(2	2	0)	(-5	8	3)	6.432	1.296	4.96	80.1	48.4
[1	-1	1]	(2	2	0)	(5	8	3)	6.432	1.296	4.96	48.7	78.4
[4	-4	-3]	(2	2	0)	(3	0	4)	6.432	1.291	4.98	81.6	81.3
[1	-1	-1]	(2	2	0)	(3	-1	4)	6.432	1.287	5.00	84.6	78.4
[2	-2	-1]	(2	2	0)	(3	1	4)	6.432	1.287	5.00	78.6	84.1
[1	-1	1]	(2	2	0)	(-1	3	4)	6.432	1.286	5.00	83.9	78.4
[2	-2	1]	(2	2	0)	(1	3	4)	6.432	1.286	5.00	78.3	84.1
[3	-3	-13]	(2	2	0)	(9	-4	3)	6.432	1.281	5.02	76.8	48.4
[3	-3	5]	(2	2	0)	(9	4	-3)	6.432	1.281	5.02	50.3	71.1
[4	-4	-5]	(2	2	0)	(3	-2	4)	6.432	1.278	5.03	87.6	75.6
[4	-4	-1]	(2	2	0)	(3	2	4)	6.432	1.278	5.03	75.7	87.1
[4	-4	5]	(2	2	0)	(-2	3	4)	6.432	1.277	5.04	86.7	75.6
[4	-4	-1]	(2	2	0)	(2	3	-4)	6.432	1.277	5.04	75.5	87.1
[3	-3	14]	(2	2	0)	(-7	7	3)	6.432	1.271	5.06	88.7	46.3
[1	-1	0]	(2	2	0)	(7	7	3)	6.432	1.271	5.06	46.2	90.0
[3	-3	13]	(2	2	0)	(-4	9	3)	6.432	1.268	5.07	74.5	48.4
[3	-3	5]	(2	2	0)	(4	9	3)	6.432	1.268	5.07	49.6	71.1
[4	-4	-5]	(2	2	0)	(4	-1	4)	6.432	1.266	5.08	82.0	75.6
[4	-4	-3]	(2	2	0)	(4	1	4)	6.432	1.266	5.08	76.0	81.3
[4	-4	-5]	(2	2	0)	(1	-4	4)	6.432	1.263	5.09	81.1	75.6
[4	-4	3]	(2	2	0)	(1	4	4)	6.432	1.263	5.09	75.5	81.3
[3	-3	14]	(2	2	0)	(-6	8	3)	6.432	1.262	5.10	83.1	46.3
[3	-3	2]	(2	2	0)	(6	8	3)	6.432	1.262	5.10	46.4	82.2
[2	-2	3]	(2	2	0)	(-3	3	4)	6.432	1.262	5.10	89.4	72.9
[1	-1	0]	(2	2	0)	(3	3	4)	6.432	1.262	5.10	72.9	90.0
[1	-1	0]	(2	2	0)	(9	9	-2)	6.432	1.257	5.12	28.4	90.0
[3	-3	-14]	(2	2	0)	(9	-5	3)	6.432	1.252	5.14	80.1	46.3
[3	-3	-4]	(2	2	0)	(9	5	3)	6.432	1.252	5.14	47.5	74.7
[4	-4	-5]	(2	2	0)	(5	0	4)	6.432	1.243	5.17	76.5	75.6
[3	-3	14]	(2	2	0)	(-5	9	3)	6.432	1.242	5.18	77.6	46.3
[3	-3	4]	(2	2	0)	(5	9	3)	6.432	1.242	5.18	47.0	74.7
[4	-4	-7]	(2	2	0)	(4	-3	4)	6.432	1.242	5.18	87.9	70.3
[4	-4	-1]	(2	2	0)	(4	3	4)	6.432	1.242	5.18	70.4	87.1
[2	-2	-3]	(2	2	0)	(5	-1	4)	6.432	1.240	5.19	79.4	72.9
[1	-1	-1]	(2	2	0)	(5	1	4)	6.432	1.240	5.19	73.6	78.4
[4	-4	7]	(2	2	0)	(-3	4	4)	6.432	1.240	5.19	86.6	70.3
[4	-4	1]	(2	2	0)	(3	4	4)	6.432	1.240	5.19	70.2	87.1
[2	-2	3]	(2	2	0)	(-1	5	4)	6.432	1.236	5.21	78.4	72.9
[1	-1	1]	(2	2	0)	(1	5	4)	6.432	1.236	5.21	72.9	78.4
[4	-4	-7]	(2	2	0)	(5	-2	4)	6.432	1.231	5.22	82.4	70.3
[4	-4	-3]	(2	2	0)	(5	2	4)	6.432	1.231	5.22	70.7	81.3
[3	-3	-1]	(2	2	0)	(8	7	3)	6.432	1.228	5.24	44.4	86.1

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Anthophyllite (220) 481 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[4	-4	7]	(2	2	0)	(-2	5	4)	6.432	1.228	5.24	81.1	70.3
[4	-4	3]	(2	2	0)	(2	5	4)	6.432	1.228	5.24	70.2	81.3
[3	-3	-1]	(2	2	0)	(7	8	-3)	6.432	1.226	5.25	44.3	86.1
[2	-2	1]	(2	2	0)	(5	3	-4)	6.432	1.217	5.28	68.0	84.1
[1	-1	2]	(2	2	0)	(-3	5	4)	6.432	1.214	5.30	83.9	67.7
[2	-2	1]	(2	2	0)	(3	5	4)	6.432	1.214	5.30	67.6	84.1
[4	-4	7]	(2	2	0)	(-6	1	4)	6.432	1.211	5.31	77.0	70.3
[4	-4	-5]	(2	2	0)	(6	1	4)	6.432	1.211	5.31	71.2	75.6
[4	-4	7]	(2	2	0)	(-1	6	4)	6.432	1.205	5.34	75.8	70.3
[4	-4	5]	(2	2	0)	(1	6	4)	6.432	1.205	5.34	70.4	75.6
[4	-4	-9]	(2	2	0)	(5	-4	4)	6.432	1.198	5.37	88.1	65.2
[4	-4	1]	(2	2	0)	(5	4	-4)	6.432	1.198	5.37	65.3	87.1
[4	-4	9]	(2	2	0)	(-4	5	4)	6.432	1.196	5.38	86.5	65.2
[4	-4	1]	(2	2	0)	(4	5	4)	6.432	1.196	5.38	65.2	87.1
[4	-4	-9]	(2	2	0)	(6	-3	4)	6.432	1.189	5.41	82.8	65.2
[4	-4	-3]	(2	2	0)	(6	3	4)	6.432	1.189	5.41	65.7	81.3
[1	-1	0]	(2	2	0)	(8	8	-3)	6.432	1.187	5.42	42.4	90.0
[3	-3	2]	(2	2	0)	(-9	-7	3)	6.432	1.185	5.43	42.8	82.2
[4	-4	9]	(2	2	0)	(-3	6	4)	6.432	1.185	5.43	81.3	65.2
[4	-4	3]	(2	2	0)	(3	6	4)	6.432	1.185	5.43	65.2	81.3
[4	-4	-7]	(2	2	0)	(7	0	4)	6.432	1.181	5.45	71.9	70.3
[3	-3	2]	(2	2	0)	(7	9	3)	6.432	1.179	5.45	42.6	82.2
[1	-1	-2]	(2	2	0)	(7	-1	4)	6.432	1.178	5.46	74.8	67.7
[2	-2	-3]	(2	2	0)	(7	1	4)	6.432	1.178	5.46	69.1	72.9
[2	-2	5]	(2	2	0)	(-5	5	4)	6.432	1.174	5.48	89.1	62.9
[1	-1	0]	(2	2	0)	(5	5	4)	6.432	1.174	5.48	62.8	90.0
[4	-4	-9]	(2	2	0)	(7	-2	4)	6.432	1.171	5.49	77.6	65.2
[4	-4	-5]	(2	2	0)	(7	2	4)	6.432	1.171	5.49	66.3	75.6
[1	-1	2]	(2	2	0)	(-1	7	4)	6.432	1.171	5.49	73.4	67.7
[2	-2	3]	(2	2	0)	(1	7	4)	6.432	1.171	5.49	68.1	72.9
[4	-4	5]	(2	2	0)	(2	7	4)	6.432	1.164	5.53	65.5	75.6
[2	-2	-5]	(2	2	0)	(7	-3	4)	6.432	1.158	5.55	80.5	62.9
[1	-1	-1]	(2	2	0)	(7	3	4)	6.432	1.158	5.55	63.6	78.4
[2	-2	5]	(2	2	0)	(-3	7	4)	6.432	1.152	5.58	78.8	62.9
[1	-1	1]	(2	2	0)	(3	7	4)	6.432	1.152	5.58	63.0	78.4
[4	-4	-11]	(2	2	0)	(6	-5	4)	6.432	1.149	5.60	88.4	60.6
[4	-4	-1]	(2	2	0)	(6	5	4)	6.432	1.149	5.60	60.7	87.1
[3	-3	-1]	(2	2	0)	(9	8	3)	6.432	1.148	5.60	40.8	86.1
[4	-4	11]	(2	2	0)	(-5	6	4)	6.432	1.148	5.60	86.5	60.6
[4	-4	1]	(2	2	0)	(5	6	4)	6.432	1.148	5.60	60.5	87.1
[3	-3	1]	(2	2	0)	(8	9	3)	6.432	1.145	5.62	40.7	86.1
[4	-4	-9]	(2	2	0)	(8	-1	4)	6.432	1.144	5.62	72.7	65.2
[4	-4	-7]	(2	2	0)	(8	1	4)	6.432	1.144	5.62	67.0	70.3
[4	-4	-11]	(2	2	0)	(7	-4	4)	6.432	1.142	5.63	83.3	60.6
[4	-4	-3]	(2	2	0)	(7	4	4)	6.432	1.142	5.63	61.1	81.3
[4	-4	-11]	(2	2	0)	(4	-7	4)	6.432	1.137	5.66	81.5	60.6
[4	-4	3]	(2	2	0)	(4	7	4)	6.432	1.137	5.66	60.6	81.3
[4	-4	9]	(2	2	0)	(-1	8	4)	6.432	1.135	5.67	71.2	65.2

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[4	-4	7]	(2	2	0)	(1	8	4)	6.432	1.135	5.67	66.0	70.3
[4	-4	-11]	(2	2	0)	(8	-3	4)	6.432	1.126	5.71	78.3	60.6
[4	-4	-5]	(2	2	0)	(8	3	4)	6.432	1.126	5.71	61.7	75.6
[1	-1	3]	(2	2	0)	(-7	5	4)	6.432	1.121	5.74	86.0	58.4
[2	-2	1]	(2	2	0)	(7	5	-4)	6.432	1.121	5.74	58.7	84.1
[1	-1	3]	(2	2	0)	(-5	7	4)	6.432	1.118	5.75	84.0	58.4
[2	-2	1]	(2	2	0)	(5	7	4)	6.432	1.118	5.75	58.4	84.1
[4	-4	11]	(2	2	0)	(-3	8	4)	6.432	1.118	5.75	76.5	60.6
[4	-4	5]	(2	2	0)	(3	8	4)	6.432	1.118	5.75	61.0	75.6
[4	-4	-9]	(2	2	0)	(9	0	4)	6.432	1.111	5.79	67.9	65.2
[1	-1	2]	(2	2	0)	(9	1	-4)	6.432	1.109	5.80	65.2	67.7
[4	-4	-11]	(2	2	0)	(9	-2	4)	6.432	1.102	5.84	73.5	60.6
[4	-4	-7]	(2	2	0)	(9	2	4)	6.432	1.102	5.84	62.5	70.3
[4	-4	-13]	(2	2	0)	(7	-6	4)	6.432	1.098	5.86	88.6	56.3
[4	-4	-1]	(2	2	0)	(7	6	4)	6.432	1.098	5.86	56.4	87.1
[2	-2	5]	(2	2	0)	(-1	9	4)	6.432	1.098	5.86	69.2	62.9
[1	-1	2]	(2	2	0)	(1	9	4)	6.432	1.098	5.86	64.0	67.7
[4	-4	13]	(2	2	0)	(-6	7	4)	6.432	1.096	5.87	86.5	56.3
[4	-4	-1]	(2	2	0)	(6	7	-4)	6.432	1.096	5.87	56.3	87.1
[4	-4	11]	(2	2	0)	(-2	9	4)	6.432	1.092	5.89	71.8	60.6
[4	-4	7]	(2	2	0)	(2	9	4)	6.432	1.092	5.89	61.5	70.3
[1	-1	-3]	(2	2	0)	(9	-3	4)	6.432	1.092	5.89	76.2	58.4
[2	-2	-3]	(2	2	0)	(9	3	4)	6.432	1.092	5.89	59.9	72.9
[4	-4	-13]	(2	2	0)	(8	-5	4)	6.432	1.092	5.89	83.7	56.3
[4	-4	3]	(2	2	0)	(8	5	-4)	6.432	1.092	5.89	56.8	81.3
[4	-4	13]	(2	2	0)	(-5	8	4)	6.432	1.087	5.92	81.7	56.3
[4	-4	3]	(2	2	0)	(5	8	4)	6.432	1.087	5.92	56.4	81.3
[1	-1	3]	(2	2	0)	(-3	9	4)	6.432	1.083	5.94	74.4	58.4
[2	-2	-3]	(2	2	0)	(3	9	-4)	6.432	1.083	5.94	59.1	72.9
[4	-4	-13]	(2	2	0)	(9	-4	4)	6.432	1.078	5.97	79.0	56.3
[4	-4	5]	(2	2	0)	(9	4	-4)	6.432	1.078	5.97	57.5	75.6
[2	-2	-7]	(2	2	0)	(7	-7	4)	6.432	1.072	6.00	88.9	54.3
[1	-1	0]	(2	2	0)	(7	7	4)	6.432	1.072	6.00	54.3	90.0
[4	-4	5]	(2	2	0)	(4	9	4)	6.432	1.070	6.01	56.8	75.6
[2	-2	-7]	(2	2	0)	(9	-5	4)	6.432	1.061	6.06	81.6	54.3
[1	-1	-1]	(2	2	0)	(9	5	4)	6.432	1.061	6.06	55.1	78.4
[5	-5	-1]	(2	2	0)	(1	0	5)	6.432	1.054	6.10	87.7	87.7
[2	-2	7]	(2	2	0)	(-5	9	4)	6.432	1.054	6.10	79.5	54.3
[1	-1	1]	(2	2	0)	(5	9	4)	6.432	1.054	6.10	54.6	78.4
[5	-5	2]	(2	2	0)	(-1	1	5)	6.432	1.052	6.11	89.8	85.3
[1	-1	0]	(2	2	0)	(1	1	5)	6.432	1.052	6.11	85.3	90.0
[5	-5	-2]	(2	2	0)	(2	0	5)	6.432	1.049	6.13	85.5	85.3
[5	-5	-3]	(2	2	0)	(2	-1	5)	6.432	1.047	6.14	87.9	83.0
[5	-5	-1]	(2	2	0)	(2	1	5)	6.432	1.047	6.14	83.1	87.7
[5	-5	3]	(2	2	0)	(-1	2	5)	6.432	1.047	6.14	87.4	83.0
[5	-5	1]	(2	2	0)	(1	2	5)	6.432	1.047	6.14	82.9	87.7
[4	-4	-15]	(2	2	0)	(8	-7	4)	6.432	1.046	6.15	88.8	52.4
[4	-4	-1]	(2	2	0)	(8	7	4)	6.432	1.046	6.15	52.5	87.1

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Anthophyllite (220) 481 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[4	-4	15]	(2	2	0)	(-7	8	4)	6.432	1.044	6.16	86.5	52.4
[4	-4	-1]	(2	2	0)	(7	8	-4)	6.432	1.044	6.16	52.4	87.1
[5	-5	4]	(2	2	0)	(-2	2	5)	6.432	1.042	6.17	89.7	80.7
[1	-1	0]	(2	2	0)	(2	2	5)	6.432	1.042	6.17	80.7	90.0
[4	-4	-15]	(2	2	0)	(9	-6	4)	6.432	1.041	6.18	84.2	52.4
[4	-4	-3]	(2	2	0)	(9	6	4)	6.432	1.041	6.18	52.9	81.3
[5	-5	-3]	(2	2	0)	(3	0	5)	6.432	1.041	6.18	83.3	83.0
[5	-5	3]	(2	2	0)	(0	3	5)	6.432	1.040	6.19	82.8	83.0
[5	-5	-4]	(2	2	0)	(3	-1	5)	6.432	1.039	6.19	85.7	80.7
[5	-5	-2]	(2	2	0)	(3	1	5)	6.432	1.039	6.19	80.9	85.3
[5	-5	4]	(2	2	0)	(-1	3	5)	6.432	1.038	6.20	85.1	80.7
[5	-5	2]	(2	2	0)	(1	3	5)	6.432	1.038	6.20	80.6	85.3
[4	-4	15]	(2	2	0)	(-6	9	4)	6.432	1.036	6.21	81.9	52.4
[4	-4	3]	(2	2	0)	(6	9	4)	6.432	1.036	6.21	52.6	81.3
[1	-1	-1]	(2	2	0)	(3	-2	5)	6.432	1.034	6.22	88.1	78.4
[5	-5	-1]	(2	2	0)	(3	2	5)	6.432	1.034	6.22	78.5	87.7
[1	-1	1]	(2	2	0)	(-2	3	5)	6.432	1.033	6.22	87.3	78.4
[5	-5	1]	(2	2	0)	(2	3	5)	6.432	1.033	6.22	78.3	87.7
[5	-5	-4]	(2	2	0)	(4	0	5)	6.432	1.030	6.25	81.1	80.7
[1	-1	-1]	(2	2	0)	(4	-1	5)	6.432	1.028	6.26	83.5	78.4
[5	-5	-3]	(2	2	0)	(4	1	5)	6.432	1.028	6.26	78.7	83.0
[1	-1	1]	(2	2	0)	(-1	4	5)	6.432	1.026	6.27	82.7	78.4
[5	-5	3]	(2	2	0)	(1	4	5)	6.432	1.026	6.27	78.3	83.0
[5	-5	6]	(2	2	0)	(-3	3	5)	6.432	1.025	6.27	89.5	76.2
[1	-1	0]	(2	2	0)	(3	3	5)	6.432	1.025	6.27	76.2	90.0
[5	-5	-6]	(2	2	0)	(4	-2	5)	6.432	1.023	6.29	85.9	76.2
[5	-5	-2]	(2	2	0)	(4	2	5)	6.432	1.023	6.29	76.4	85.3
[5	-5	6]	(2	2	0)	(-2	4	5)	6.432	1.021	6.30	85.0	76.2
[5	-5	2]	(2	2	0)	(2	4	5)	6.432	1.021	6.30	76.1	85.3
[1	-1	4]	(2	2	0)	(-9	7	4)	6.432	1.019	6.31	86.7	50.6
[2	-2	1]	(2	2	0)	(9	7	-4)	6.432	1.019	6.31	50.9	84.1
[1	-1	4]	(2	2	0)	(-7	9	4)	6.432	1.015	6.33	84.3	50.6
[2	-2	1]	(2	2	0)	(7	9	4)	6.432	1.015	6.33	50.6	84.1
[5	-5	-7]	(2	2	0)	(4	-3	5)	6.432	1.015	6.34	88.3	74.0
[5	-5	-1]	(2	2	0)	(4	3	5)	6.432	1.015	6.34	74.1	87.7
[5	-5	-6]	(2	2	0)	(5	-1	5)	6.432	1.014	6.34	81.4	76.2
[5	-5	-4]	(2	2	0)	(5	1	5)	6.432	1.014	6.34	76.6	80.7
[5	-5	7]	(2	2	0)	(-3	4	5)	6.432	1.014	6.34	87.2	74.0
[5	-5	1]	(2	2	0)	(3	4	5)	6.432	1.014	6.34	73.9	87.7
[5	-5	6]	(2	2	0)	(-1	5	5)	6.432	1.011	6.36	80.5	76.2
[5	-5	4]	(2	2	0)	(1	5	5)	6.432	1.011	6.36	76.1	80.7
[5	-5	-7]	(2	2	0)	(5	-2	5)	6.432	1.009	6.37	83.8	74.0
[5	-5	-3]	(2	2	0)	(5	2	5)	6.432	1.009	6.37	74.3	83.0
[5	-5	7]	(2	2	0)	(-2	5	5)	6.432	1.007	6.39	82.7	74.0
[5	-5	3]	(2	2	0)	(2	5	5)	6.432	1.007	6.39	73.9	83.0
[5	-5	8]	(2	2	0)	(-4	4	5)	6.432	1.003	6.41	89.4	71.8
[1	-1	0]	(2	2	0)	(4	4	5)	6.432	1.003	6.41	71.8	90.0
[5	-5	-8]	(2	2	0)	(5	-3	5)	6.432	1.001	6.43	86.1	71.8

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Anthophyllite (220) 481 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[5	-5	-2]	(2	2	0)	(5	3	5)	6.432	1.001	6.43	72.0	85.3

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Anthophyllite (230) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-2	-3]	(2	3	0)	(1	0	1)	5.014	5.077	0.99	81.4	76.5
[3	-2	2]	(2	3	0)	(0	1	1)	5.014	5.064	0.99	76.2	80.9
[3	-2	5]	(2	3	0)	(-1	1	1)	5.014	4.885	1.03	85.1	68.2
[3	-2	1]	(2	3	0)	(-1	-1	1)	5.014	4.885	1.03	68.1	85.4
[3	-2	-6]	(2	3	0)	(2	0	1)	5.014	4.586	1.09	74.4	64.4
[3	-2	-8]	(2	3	0)	(2	-1	1)	5.014	4.442	1.13	87.0	57.4
[3	-2	-4]	(2	3	0)	(2	1	1)	5.014	4.442	1.13	62.0	72.3
[3	-2	7]	(2	3	0)	(-1	2	1)	5.014	4.416	1.14	73.4	60.8
[3	-2	1]	(2	3	0)	(1	2	1)	5.014	4.416	1.14	57.0	85.4
[3	-2	10]	(2	3	0)	(-2	2	1)	5.014	4.081	1.23	81.7	51.4
[3	-2	2]	(2	3	0)	(2	2	-1)	5.014	4.081	1.23	51.5	80.9
[3	-2	9]	(2	3	0)	(3	0	-1)	5.014	4.011	1.25	69.4	54.3
[3	-2	6]	(2	3	0)	(0	3	1)	5.014	3.954	1.27	56.2	64.4
[3	-2	-11]	(2	3	0)	(3	-1	1)	5.014	3.914	1.28	80.8	48.7
[3	-2	7]	(2	3	0)	(3	1	-1)	5.014	3.914	1.28	58.1	60.8
[3	-2	-9]	(2	3	0)	(-1	3	-1)	5.014	3.867	1.30	64.5	54.3
[3	-2	3]	(2	3	0)	(1	3	1)	5.014	3.867	1.30	48.9	76.5
[3	-2	5]	(2	3	0)	(3	2	-1)	5.014	3.660	1.37	48.3	68.2
[3	-2	12]	(2	3	0)	(-2	3	1)	5.014	3.636	1.38	72.6	46.2
[3	-2	0]	(2	3	0)	(2	3	-1)	5.014	3.636	1.38	43.5	90.0
[3	-2	-12]	(2	3	0)	(4	0	1)	5.014	3.479	1.44	65.9	46.2
[3	-2	-10]	(2	3	0)	(4	1	1)	5.014	3.415	1.47	55.9	51.4
[3	-2	11]	(2	3	0)	(-1	4	1)	5.014	3.357	1.49	57.9	48.7
[3	-2	5]	(2	3	0)	(1	4	1)	5.014	3.357	1.49	43.2	68.2
[3	-2	3]	(2	3	0)	(3	3	-1)	5.014	3.329	1.51	40.4	76.5
[3	-2	8]	(2	3	0)	(-4	-2	1)	5.014	3.243	1.55	46.8	57.4
[3	-2	2]	(2	3	0)	(2	4	1)	5.014	3.203	1.57	37.9	80.9
[3	-2	-6]	(2	3	0)	(4	3	1)	5.014	3.005	1.67	39.1	64.4
[3	-2	-1]	(2	3	0)	(3	4	1)	5.014	2.987	1.68	34.6	85.4
[3	-2	10]	(2	3	0)	(0	5	1)	5.014	2.963	1.69	45.9	51.4
[3	-2	7]	(2	3	0)	(1	5	1)	5.014	2.926	1.71	39.4	60.8
[3	-2	-11]	(2	3	0)	(5	2	1)	5.014	2.870	1.75	46.4	48.7
[3	-2	4]	(2	3	0)	(2	5	1)	5.014	2.822	1.78	34.1	72.3
[3	-2	4]	(2	3	0)	(4	4	-1)	5.014	2.747	1.83	33.1	72.3
[3	-2	-9]	(2	3	0)	(5	3	1)	5.014	2.702	1.86	39.1	54.3
[3	-2	-1]	(2	3	0)	(3	5	-1)	5.014	2.671	1.88	30.5	85.4
[6	-4	3]	(2	3	0)	(1	0	-2)	5.014	2.614	1.92	85.6	83.2
[6	-4	5]	(2	3	0)	(-1	1	2)	5.014	2.586	1.94	87.4	78.7
[6	-4	-1]	(2	3	0)	(1	1	2)	5.014	2.586	1.94	78.6	87.7
[3	-2	9]	(2	3	0)	(1	6	1)	5.014	2.572	1.95	36.9	54.3
[3	-2	-4]	(2	3	0)	(2	-1	2)	5.014	2.513	1.99	88.3	72.3
[3	-2	-2]	(2	3	0)	(2	1	2)	5.014	2.513	1.99	74.6	80.9
[3	-2	-7]	(2	3	0)	(5	4	1)	5.014	2.509	2.00	33.0	60.8
[6	-4	-7]	(2	3	0)	(-1	2	-2)	5.014	2.509	2.00	80.7	74.4
[6	-4	-1]	(2	3	0)	(-1	-2	2)	5.014	2.509	2.00	72.0	87.7
[3	-2	6]	(2	3	0)	(2	6	1)	5.014	2.501	2.01	31.7	64.4
[3	-2	-2]	(2	3	0)	(4	5	1)	5.014	2.495	2.01	28.6	80.9
[3	-2	12]	(2	3	0)	(6	3	-1)	5.014	2.431	2.06	39.7	46.2

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[6	-4	-9]	(2	3	0)	(3	0	2)	5.014	2.427	2.07	77.7	70.2
[6	-4	-11]	(2	3	0)	(3	-1	2)	5.014	2.405	2.08	84.3	66.3
[6	-4	-7]	(2	3	0)	(3	1	2)	5.014	2.405	2.08	71.1	74.4
[6	-4	9]	(2	3	0)	(-1	3	2)	5.014	2.394	2.09	74.5	70.2
[6	-4	3]	(2	3	0)	(1	3	2)	5.014	2.394	2.09	66.0	83.2
[3	-2	-3]	(2	3	0)	(3	6	-1)	5.014	2.394	2.09	27.8	76.5
[6	-4	-13]	(2	3	0)	(3	-2	2)	5.014	2.342	2.14	89.2	62.5
[6	-4	-5]	(2	3	0)	(3	2	2)	5.014	2.342	2.14	64.8	78.7
[3	-2	6]	(2	3	0)	(-2	3	2)	5.014	2.336	2.15	78.9	64.4
[3	-2	0]	(2	3	0)	(2	3	2)	5.014	2.336	2.15	62.2	90.0
[3	-2	-5]	(2	3	0)	(5	5	1)	5.014	2.313	2.17	28.1	68.2
[3	-2	11]	(2	3	0)	(1	7	1)	5.014	2.284	2.20	35.2	48.7
[3	-2	-7]	(2	3	0)	(4	-1	2)	5.014	2.274	2.20	80.8	60.8
[3	-2	-5]	(2	3	0)	(4	1	2)	5.014	2.274	2.20	68.1	68.2
[3	-2	4]	(2	3	0)	(0	4	2)	5.014	2.274	2.21	64.7	72.3
[3	-2	0]	(2	3	0)	(4	6	-1)	5.014	2.265	2.21	25.4	90.0
[6	-4	11]	(2	3	0)	(-1	4	2)	5.014	2.257	2.22	69.0	66.3
[6	-4	5]	(2	3	0)	(1	4	2)	5.014	2.257	2.22	60.7	78.7
[6	-4	15]	(2	3	0)	(-3	3	2)	5.014	2.248	2.23	83.2	59.1
[6	-4	3]	(2	3	0)	(3	3	-2)	5.014	2.248	2.23	59.1	83.2
[3	-2	-8]	(2	3	0)	(-2	-7	1)	5.014	2.233	2.25	30.1	57.4
[3	-2	5]	(2	3	0)	(3	7	1)	5.014	2.156	2.33	26.1	68.2
[6	-4	-15]	(2	3	0)	(5	0	2)	5.014	2.149	2.33	71.6	59.1
[3	-2	9]	(2	3	0)	(-4	3	2)	5.014	2.140	2.34	87.1	54.3
[3	-2	-3]	(2	3	0)	(4	3	2)	5.014	2.140	2.34	56.5	76.5
[3	-2	8]	(2	3	0)	(6	5	-1)	5.014	2.136	2.35	28.7	57.4
[6	-4	17]	(2	3	0)	(-5	1	2)	5.014	2.134	2.35	77.7	55.8
[6	-4	-13]	(2	3	0)	(5	1	2)	5.014	2.134	2.35	65.6	62.5
[6	-4	-1]	(2	3	0)	(3	4	2)	5.014	2.133	2.35	54.0	87.7
[3	-2	-3]	(2	3	0)	(5	6	1)	5.014	2.126	2.36	24.5	76.5
[6	-4	13]	(2	3	0)	(-1	5	2)	5.014	2.111	2.38	64.3	62.5
[6	-4	7]	(2	3	0)	(1	5	2)	5.014	2.111	2.38	56.1	74.4
[6	-4	-19]	(2	3	0)	(5	-2	2)	5.014	2.090	2.40	83.7	52.8
[6	-4	-11]	(2	3	0)	(5	2	2)	5.014	2.090	2.40	59.8	66.3
[3	-2	8]	(2	3	0)	(-2	5	2)	5.014	2.071	2.42	68.6	57.4
[3	-2	2]	(2	3	0)	(2	5	2)	5.014	2.071	2.42	52.6	80.9
[3	-2	2]	(2	3	0)	(4	7	1)	5.014	2.060	2.43	23.3	80.9
[6	-4	21]	(2	3	0)	(-5	3	2)	5.014	2.022	2.48	89.3	50.0
[6	-4	-9]	(2	3	0)	(5	3	2)	5.014	2.022	2.48	54.5	70.2
[3	-2	10]	(2	3	0)	(2	8	1)	5.014	2.011	2.49	29.2	51.4
[6	-4	19]	(2	3	0)	(-3	5	2)	5.014	2.009	2.50	72.8	52.8
[6	-4	-1]	(2	3	0)	(3	5	-2)	5.014	2.009	2.50	49.6	87.7
[3	-2	-10]	(2	3	0)	(6	-1	2)	5.014	1.993	2.52	75.1	51.4
[3	-2	-8]	(2	3	0)	(6	1	2)	5.014	1.993	2.52	63.6	57.4
[3	-2	6]	(2	3	0)	(6	6	-1)	5.014	1.986	2.52	24.7	64.4
[3	-2	-11]	(2	3	0)	(7	5	1)	5.014	1.972	2.54	29.8	48.7
[6	-4	15]	(2	3	0)	(-1	6	2)	5.014	1.966	2.55	60.3	59.1
[6	-4	9]	(2	3	0)	(1	6	2)	5.014	1.966	2.55	52.3	70.2

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Anthophyllite (230) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-2	7]	(2	3	0)	(3	8	1)	5.014	1.954	2.57	25.1	60.8
[6	-4	23]	(2	3	0)	(-5	4	2)	5.014	1.937	2.59	85.4	47.4
[6	-4	-7]	(2	3	0)	(5	4	2)	5.014	1.937	2.59	49.6	74.4
[3	-2	11]	(2	3	0)	(-4	5	2)	5.014	1.931	2.60	76.9	48.7
[3	-2	-1]	(2	3	0)	(4	5	2)	5.014	1.931	2.60	47.2	85.4
[3	-2	-12]	(2	3	0)	(6	-3	2)	5.014	1.901	2.64	86.2	46.2
[3	-2	-6]	(2	3	0)	(6	3	2)	5.014	1.901	2.64	53.0	64.4
[6	-4	21]	(2	3	0)	(-3	6	2)	5.014	1.883	2.66	68.6	50.0
[6	-4	-3]	(2	3	0)	(3	6	-2)	5.014	1.883	2.66	45.9	83.2
[3	-2	-4]	(2	3	0)	(4	8	-1)	5.014	1.882	2.66	22.0	72.3
[6	-4	-21]	(2	3	0)	(7	0	2)	5.014	1.868	2.68	67.5	50.0
[6	-4	-23]	(2	3	0)	(7	-1	2)	5.014	1.858	2.70	72.9	47.4
[6	-4	-19]	(2	3	0)	(7	1	2)	5.014	1.858	2.70	62.1	52.8
[3	-2	-9]	(2	3	0)	(7	6	1)	5.014	1.852	2.71	25.6	54.3
[3	-2	-4]	(2	3	0)	(6	7	1)	5.014	1.844	2.72	21.5	72.3
[6	-4	25]	(2	3	0)	(-5	5	2)	5.014	1.843	2.72	80.6	45.0
[6	-4	-5]	(2	3	0)	(5	5	2)	5.014	1.843	2.72	45.4	78.7
[6	-4	25]	(2	3	0)	(-7	2	2)	5.014	1.828	2.74	78.3	45.0
[6	-4	-17]	(2	3	0)	(7	2	2)	5.014	1.828	2.74	56.9	55.8
[6	-4	17]	(2	3	0)	(-1	7	2)	5.014	1.828	2.74	56.8	55.8
[6	-4	11]	(2	3	0)	(1	7	2)	5.014	1.828	2.74	49.1	66.3
[3	-2	12]	(2	3	0)	(2	9	1)	5.014	1.825	2.75	28.6	46.2
[3	-2	10]	(2	3	0)	(-2	7	2)	5.014	1.802	2.78	60.9	51.4
[3	-2	4]	(2	3	0)	(2	7	2)	5.014	1.802	2.78	45.8	72.3
[3	-2	1]	(2	3	0)	(5	8	1)	5.014	1.800	2.79	20.0	85.4
[6	-4	-15]	(2	3	0)	(7	3	2)	5.014	1.782	2.81	51.9	59.1
[3	-2	9]	(2	3	0)	(3	9	1)	5.014	1.782	2.81	24.6	54.3
[6	-4	23]	(2	3	0)	(-3	7	2)	5.014	1.760	2.85	64.9	47.4
[6	-4	5]	(2	3	0)	(3	7	2)	5.014	1.760	2.85	42.8	78.7
[3	-2	-1]	(2	3	0)	(1	0	3)	5.014	1.752	2.86	87.1	85.4
[9	-6	2]	(2	3	0)	(0	1	3)	5.014	1.752	2.86	85.3	86.9
[3	-2	4]	(2	3	0)	(6	5	-2)	5.014	1.750	2.87	44.1	72.3
[9	-6	5]	(2	3	0)	(-1	1	3)	5.014	1.744	2.88	88.2	82.4
[9	-6	-1]	(2	3	0)	(1	1	3)	5.014	1.744	2.88	82.4	88.5
[6	-4	-3]	(2	3	0)	(5	6	2)	5.014	1.744	2.88	41.7	83.2
[3	-2	7]	(2	3	0)	(7	7	-1)	5.014	1.736	2.89	22.1	60.8
[3	-2	-11]	(2	3	0)	(8	1	2)	5.014	1.731	2.90	60.8	48.7
[3	-2	-2]	(2	3	0)	(2	0	3)	5.014	1.729	2.90	84.2	80.9
[3	-2	-12]	(2	3	0)	(8	6	1)	5.014	1.727	2.90	27.0	46.2
[3	-2	6]	(2	3	0)	(4	9	1)	5.014	1.727	2.90	21.3	64.4
[6	-4	-13]	(2	3	0)	(7	4	2)	5.014	1.724	2.91	47.4	62.5
[9	-6	-8]	(2	3	0)	(2	-1	3)	5.014	1.721	2.91	88.9	78.0
[9	-6	-4]	(2	3	0)	(2	1	3)	5.014	1.721	2.91	79.5	83.9
[9	-6	7]	(2	3	0)	(-1	2	3)	5.014	1.719	2.92	83.6	79.4
[9	-6	1]	(2	3	0)	(1	2	3)	5.014	1.719	2.92	77.8	88.5
[3	-2	-2]	(2	3	0)	(6	8	1)	5.014	1.713	2.93	19.2	80.9
[3	-2	1]	(2	3	0)	(4	7	2)	5.014	1.707	2.94	40.4	85.4
[3	-2	8]	(2	3	0)	(0	8	2)	5.014	1.707	2.94	50.1	57.4

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[6	-4	19]	(2	3	0)	(-1	8	2)	5.014	1.700	2.95	53.9	52.8
[6	-4	13]	(2	3	0)	(1	8	2)	5.014	1.700	2.95	46.5	62.5
[9	-6	10]	(2	3	0)	(-2	2	3)	5.014	1.698	2.95	86.6	75.1
[9	-6	-2]	(2	3	0)	(2	2	3)	5.014	1.698	2.95	75.0	86.9
[9	-6	-7]	(2	3	0)	(3	1	3)	5.014	1.685	2.98	76.9	79.4
[3	-2	3]	(2	3	0)	(-1	3	3)	5.014	1.681	2.98	79.2	76.5
[3	-2	1]	(2	3	0)	(1	3	3)	5.014	1.681	2.98	73.4	85.4
[3	-2	-9]	(2	3	0)	(8	3	2)	5.014	1.670	3.00	51.2	54.3
[3	-2	-3]	(2	3	0)	(-5	-9	1)	5.014	1.663	3.02	18.9	76.5
[3	-2	4]	(2	3	0)	(-2	3	3)	5.014	1.661	3.02	82.2	72.3
[3	-2	0]	(2	3	0)	(2	3	3)	5.014	1.661	3.02	70.7	90.0
[6	-4	-11]	(2	3	0)	(7	5	2)	5.014	1.656	3.03	43.3	66.3
[6	-4	-1]	(2	3	0)	(5	7	2)	5.014	1.645	3.05	38.6	87.7
[6	-4	25]	(2	3	0)	(-3	8	2)	5.014	1.645	3.05	61.8	45.0
[6	-4	7]	(2	3	0)	(3	8	2)	5.014	1.645	3.05	40.3	74.4
[3	-2	-4]	(2	3	0)	(4	0	3)	5.014	1.645	3.05	78.9	72.3
[9	-6	-14]	(2	3	0)	(4	-1	3)	5.014	1.638	3.06	83.4	69.5
[9	-6	-10]	(2	3	0)	(4	1	3)	5.014	1.638	3.06	74.4	75.1
[9	-6	11]	(2	3	0)	(-1	4	3)	5.014	1.631	3.07	75.0	73.7
[9	-6	5]	(2	3	0)	(1	4	3)	5.014	1.631	3.07	69.3	82.4
[3	-2	10]	(2	3	0)	(8	7	-1)	5.014	1.631	3.07	23.3	51.4
[3	-2	5]	(2	3	0)	(-7	-8	1)	5.014	1.625	3.09	19.4	68.2
[9	-6	-8]	(2	3	0)	(4	2	3)	5.014	1.618	3.10	70.0	78.0
[6	-4	-25]	(2	3	0)	(9	1	2)	5.014	1.615	3.10	59.9	45.0
[9	-6	14]	(2	3	0)	(-2	4	3)	5.014	1.613	3.11	78.0	69.5
[9	-6	2]	(2	3	0)	(2	4	3)	5.014	1.613	3.11	66.6	86.9
[3	-2	0]	(2	3	0)	(6	9	-1)	5.014	1.593	3.15	17.6	90.0
[3	-2	-5]	(2	3	0)	(5	0	3)	5.014	1.589	3.15	76.5	68.2
[3	-2	6]	(2	3	0)	(-4	3	3)	5.014	1.586	3.16	87.9	64.4
[3	-2	-2]	(2	3	0)	(4	3	3)	5.014	1.586	3.16	65.8	80.9
[9	-6	-17]	(2	3	0)	(5	-1	3)	5.014	1.583	3.17	80.9	65.6
[9	-6	-13]	(2	3	0)	(5	1	3)	5.014	1.583	3.17	72.2	70.9
[6	-4	-9]	(2	3	0)	(7	6	2)	5.014	1.583	3.17	39.6	70.2
[9	-6	-1]	(2	3	0)	(3	4	3)	5.014	1.583	3.17	64.1	88.5
[6	-4	21]	(2	3	0)	(-1	9	2)	5.014	1.583	3.17	51.5	50.0
[6	-4	15]	(2	3	0)	(1	9	2)	5.014	1.583	3.17	44.3	59.1
[9	-6	10]	(2	3	0)	(0	5	3)	5.014	1.579	3.17	68.2	75.1
[3	-2	-2]	(2	3	0)	(6	7	2)	5.014	1.578	3.18	37.3	80.9
[9	-6	13]	(2	3	0)	(-1	5	3)	5.014	1.574	3.19	71.1	70.9
[9	-6	7]	(2	3	0)	(1	5	3)	5.014	1.574	3.19	65.4	79.4
[3	-2	12]	(2	3	0)	(-2	9	2)	5.014	1.566	3.20	55.3	46.2
[3	-2	6]	(2	3	0)	(2	9	2)	5.014	1.566	3.20	41.1	64.4
[6	-4	-21]	(2	3	0)	(9	3	2)	5.014	1.565	3.20	50.7	50.0
[9	-6	-19]	(2	3	0)	(5	-2	3)	5.014	1.565	3.20	85.3	63.1
[9	-6	-11]	(2	3	0)	(5	2	3)	5.014	1.565	3.20	67.9	73.7
[3	-2	-7]	(2	3	0)	(8	5	2)	5.014	1.565	3.20	42.8	60.8
[9	-6	16]	(2	3	0)	(-2	5	3)	5.014	1.557	3.22	74.1	66.9
[9	-6	4]	(2	3	0)	(2	5	3)	5.014	1.557	3.22	62.8	83.9

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Anthophyllite (230) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[6	-4	1]	(2	3	0)	(5	8	2)	5.014	1.550	3.24	36.0	87.7
[9	-6	20]	(2	3	0)	(-4	4	3)	5.014	1.544	3.25	83.7	61.9
[9	-6	-4]	(2	3	0)	(4	4	3)	5.014	1.544	3.25	61.9	83.9
[6	-4	9]	(2	3	0)	(3	9	2)	5.014	1.538	3.26	38.3	70.2
[3	-2	8]	(2	3	0)	(8	8	-1)	5.014	1.538	3.26	20.2	57.4
[3	-2	7]	(2	3	0)	(-5	3	3)	5.014	1.536	3.26	89.5	60.8
[3	-2	-3]	(2	3	0)	(5	3	3)	5.014	1.536	3.26	63.8	76.5
[9	-6	19]	(2	3	0)	(-3	5	3)	5.014	1.530	3.28	77.0	63.1
[9	-6	1]	(2	3	0)	(3	5	3)	5.014	1.530	3.28	60.4	88.5
[6	-4	19]	(2	3	0)	(9	4	-2)	5.014	1.525	3.29	46.5	52.8
[9	-6	20]	(2	3	0)	(6	-1	-3)	5.014	1.523	3.29	78.7	61.9
[9	-6	-16]	(2	3	0)	(6	1	3)	5.014	1.523	3.29	70.2	66.9
[3	-2	-3]	(2	3	0)	(7	9	1)	5.014	1.522	3.29	17.2	76.5
[3	-2	5]	(2	3	0)	(-1	6	3)	5.014	1.511	3.32	67.6	68.2
[3	-2	3]	(2	3	0)	(1	6	3)	5.014	1.511	3.32	62.0	76.5
[6	-4	7]	(2	3	0)	(7	7	-2)	5.014	1.508	3.32	36.4	74.4
[9	-6	22]	(2	3	0)	(-6	2	3)	5.014	1.507	3.33	82.9	59.6
[9	-6	-14]	(2	3	0)	(6	2	3)	5.014	1.507	3.33	66.0	69.5
[9	-6	23]	(2	3	0)	(-5	4	3)	5.014	1.498	3.35	86.5	58.5
[9	-6	-7]	(2	3	0)	(5	4	3)	5.014	1.498	3.35	60.0	79.4
[3	-2	6]	(2	3	0)	(-2	6	3)	5.014	1.496	3.35	70.5	64.4
[3	-2	2]	(2	3	0)	(2	6	3)	5.014	1.496	3.35	59.4	80.9
[9	-6	22]	(2	3	0)	(-4	5	3)	5.014	1.495	3.35	79.9	59.6
[9	-6	-2]	(2	3	0)	(4	5	3)	5.014	1.495	3.35	58.3	86.9
[6	-4	17]	(2	3	0)	(9	5	-2)	5.014	1.477	3.39	42.6	55.8
[9	-6	-23]	(2	3	0)	(7	-1	3)	5.014	1.460	3.43	76.6	58.5
[9	-6	-19]	(2	3	0)	(7	1	3)	5.014	1.460	3.43	68.4	63.1
[6	-4	3]	(2	3	0)	(5	9	2)	5.014	1.460	3.43	33.8	83.2
[3	-2	-11]	(2	3	0)	(9	8	1)	5.014	1.455	3.45	21.5	48.7
[9	-6	25]	(2	3	0)	(-5	5	3)	5.014	1.453	3.45	82.6	56.3
[9	-6	-5]	(2	3	0)	(5	5	3)	5.014	1.453	3.45	56.4	82.4
[3	-2	-6]	(2	3	0)	(8	9	1)	5.014	1.450	3.46	17.7	64.4
[9	-6	14]	(2	3	0)	(0	7	3)	5.014	1.450	3.46	61.5	69.5
[9	-6	26]	(2	3	0)	(-6	4	3)	5.014	1.446	3.47	89.0	55.3
[9	-6	10]	(2	3	0)	(6	4	-3)	5.014	1.446	3.47	58.3	75.1
[9	-6	25]	(2	3	0)	(-7	2	3)	5.014	1.446	3.47	80.7	56.3
[9	-6	-17]	(2	3	0)	(7	2	3)	5.014	1.446	3.47	64.4	65.6
[9	-6	17]	(2	3	0)	(-1	7	3)	5.014	1.445	3.47	64.4	65.6
[9	-6	11]	(2	3	0)	(1	7	3)	5.014	1.445	3.47	58.8	73.7
[3	-2	8]	(2	3	0)	(-4	6	3)	5.014	1.440	3.48	76.3	57.4
[3	-2	0]	(2	3	0)	(4	6	3)	5.014	1.440	3.48	54.9	90.0
[3	-2	5]	(2	3	0)	(8	7	-2)	5.014	1.438	3.49	35.9	68.2
[6	-4	-5]	(2	3	0)	(7	8	2)	5.014	1.434	3.50	33.6	78.7
[9	-6	20]	(2	3	0)	(-2	7	3)	5.014	1.432	3.50	67.2	61.9
[9	-6	8]	(2	3	0)	(2	7	3)	5.014	1.432	3.50	56.3	78.0
[6	-4	-15]	(2	3	0)	(9	6	2)	5.014	1.425	3.52	39.0	59.1
[3	-2	-9]	(2	3	0)	(7	-3	3)	5.014	1.423	3.52	84.8	54.3
[3	-2	-5]	(2	3	0)	(7	3	3)	5.014	1.423	3.52	60.5	68.2

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Anthophyllite (230) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-2	0]	(2	3	0)	(6	9	2)	5.014	1.412	3.55	32.3	90.0
[9	-6	23]	(2	3	0)	(-3	7	3)	5.014	1.411	3.55	70.1	58.5
[9	-6	5]	(2	3	0)	(3	7	3)	5.014	1.411	3.55	54.0	82.4
[9	-6	28]	(2	3	0)	(-6	5	3)	5.014	1.406	3.57	85.2	53.3
[9	-6	8]	(2	3	0)	(6	5	-3)	5.014	1.406	3.57	54.8	78.0
[3	-2	-9]	(2	3	0)	(-5	6	-3)	5.014	1.403	3.57	79.1	54.3
[3	-2	-1]	(2	3	0)	(5	6	3)	5.014	1.403	3.57	53.1	85.4
[3	-2	-8]	(2	3	0)	(8	0	3)	5.014	1.401	3.58	70.8	57.4
[9	-6	-26]	(2	3	0)	(8	-1	3)	5.014	1.396	3.59	74.8	55.3
[9	-6	-22]	(2	3	0)	(8	1	3)	5.014	1.396	3.59	66.9	59.6
[9	-6	-29]	(2	3	0)	(7	-4	3)	5.014	1.392	3.60	88.6	52.3
[9	-6	-13]	(2	3	0)	(7	4	3)	5.014	1.392	3.60	56.8	70.9
[9	-6	-28]	(2	3	0)	(8	-2	3)	5.014	1.384	3.62	78.8	53.3
[9	-6	-20]	(2	3	0)	(8	2	3)	5.014	1.384	3.62	63.0	61.9
[9	-6	26]	(2	3	0)	(-4	7	3)	5.014	1.383	3.62	73.0	55.3
[9	-6	2]	(2	3	0)	(4	7	3)	5.014	1.383	3.62	51.9	86.9
[3	-2	9]	(2	3	0)	(9	9	-1)	5.014	1.380	3.63	18.8	54.3
[9	-6	19]	(2	3	0)	(-1	8	3)	5.014	1.379	3.63	61.5	63.1
[9	-6	13]	(2	3	0)	(1	8	3)	5.014	1.379	3.63	56.0	70.9
[6	-4	-13]	(2	3	0)	(9	7	2)	5.014	1.370	3.66	35.8	62.5
[9	-6	22]	(2	3	0)	(-2	8	3)	5.014	1.368	3.66	64.3	59.6
[9	-6	10]	(2	3	0)	(2	8	3)	5.014	1.368	3.66	53.6	75.1
[3	-2	-10]	(2	3	0)	(8	-3	3)	5.014	1.363	3.68	82.7	51.4
[3	-2	-6]	(2	3	0)	(8	3	3)	5.014	1.363	3.68	59.2	64.4
[6	-4	-3]	(2	3	0)	(7	9	2)	5.014	1.362	3.68	31.3	83.2
[9	-6	29]	(2	3	0)	(-5	7	3)	5.014	1.350	3.71	75.8	52.3
[9	-6	-1]	(2	3	0)	(5	7	3)	5.014	1.350	3.71	50.1	88.5
[9	-6	25]	(2	3	0)	(-3	8	3)	5.014	1.350	3.71	67.2	56.3
[9	-6	7]	(2	3	0)	(3	8	3)	5.014	1.350	3.71	51.3	79.4
[9	-6	-32]	(2	3	0)	(8	-4	3)	5.014	1.337	3.75	86.4	49.5
[9	-6	-16]	(2	3	0)	(8	4	3)	5.014	1.337	3.75	55.6	66.9
[9	-6	-29]	(2	3	0)	(9	-1	3)	5.014	1.333	3.76	73.2	52.3
[9	-6	-25]	(2	3	0)	(9	1	3)	5.014	1.333	3.76	65.5	56.3
[9	-6	28]	(2	3	0)	(-4	8	3)	5.014	1.325	3.78	70.0	53.3
[9	-6	4]	(2	3	0)	(4	8	3)	5.014	1.325	3.78	49.2	83.9
[9	-6	-31]	(2	3	0)	(9	-2	3)	5.014	1.322	3.79	77.0	50.4
[9	-6	-23]	(2	3	0)	(9	2	3)	5.014	1.322	3.79	61.8	58.5
[12	-8	-3]	(2	3	0)	(1	0	4)	5.014	1.317	3.81	87.8	86.6
[3	-2	11]	(2	3	0)	(-7	6	3)	5.014	1.315	3.81	84.2	48.7
[3	-2	-3]	(2	3	0)	(7	6	3)	5.014	1.315	3.81	50.2	76.5
[3	-2	7]	(2	3	0)	(-1	9	3)	5.014	1.315	3.81	58.9	60.8
[3	-2	5]	(2	3	0)	(1	9	3)	5.014	1.315	3.81	53.6	68.2
[6	-4	-11]	(2	3	0)	(9	8	2)	5.014	1.313	3.82	32.9	66.3
[12	-8	5]	(2	3	0)	(-1	1	4)	5.014	1.313	3.82	88.7	84.3
[12	-8	-1]	(2	3	0)	(1	1	4)	5.014	1.313	3.82	84.3	88.9
[9	-6	32]	(2	3	0)	(-6	7	3)	5.014	1.312	3.82	78.4	49.5
[9	-6	-4]	(2	3	0)	(6	7	3)	5.014	1.312	3.82	48.6	83.9
[3	-2	-3]	(2	3	0)	(8	9	2)	5.014	1.309	3.83	30.7	76.5

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Anthophyllite (230) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-2	8]	(2	3	0)	(-2	9	3)	5.014	1.305	3.84	61.6	57.4
[3	-2	4]	(2	3	0)	(2	9	3)	5.014	1.305	3.84	51.1	72.3
[9	-6	34]	(2	3	0)	(-8	5	3)	5.014	1.304	3.84	90.0	47.8
[9	-6	-14]	(2	3	0)	(8	5	3)	5.014	1.304	3.84	52.3	69.5
[3	-2	-2]	(2	3	0)	(2	-1	4)	5.014	1.303	3.85	89.1	80.9
[3	-2	-1]	(2	3	0)	(2	1	4)	5.014	1.303	3.85	82.1	85.4
[12	-8	7]	(2	3	0)	(-1	2	4)	5.014	1.303	3.85	85.2	82.0
[12	-8	1]	(2	3	0)	(1	2	4)	5.014	1.303	3.85	80.8	88.9
[9	-6	-31]	(2	3	0)	(-5	8	-3)	5.014	1.296	3.87	72.7	50.4
[9	-6	1]	(2	3	0)	(5	8	3)	5.014	1.296	3.87	47.4	88.5
[12	-8	-9]	(2	3	0)	(3	0	4)	5.014	1.291	3.88	83.5	79.8
[12	-8	-11]	(2	3	0)	(3	-1	4)	5.014	1.287	3.89	87.0	77.6
[12	-8	-7]	(2	3	0)	(3	1	4)	5.014	1.287	3.89	80.0	82.0
[12	-8	9]	(2	3	0)	(-1	3	4)	5.014	1.286	3.90	81.8	79.8
[12	-8	3]	(2	3	0)	(1	3	4)	5.014	1.286	3.90	77.4	86.6
[9	-6	-35]	(2	3	0)	(9	-4	3)	5.014	1.281	3.91	84.4	47.0
[9	-6	19]	(2	3	0)	(9	4	-3)	5.014	1.281	3.91	54.7	63.1
[12	-8	-13]	(2	3	0)	(3	-2	4)	5.014	1.278	3.92	89.6	75.4
[12	-8	-5]	(2	3	0)	(3	2	4)	5.014	1.278	3.92	76.6	84.3
[3	-2	3]	(2	3	0)	(-2	3	4)	5.014	1.277	3.93	84.0	76.5
[3	-2	0]	(2	3	0)	(2	3	4)	5.014	1.277	3.93	75.3	90.0
[9	-6	35]	(2	3	0)	(-7	7	3)	5.014	1.271	3.94	81.0	47.0
[9	-6	-7]	(2	3	0)	(7	7	3)	5.014	1.271	3.94	47.3	79.4
[3	-2	-12]	(2	3	0)	(-8	6	-3)	5.014	1.268	3.96	86.6	46.2
[3	-2	-4]	(2	3	0)	(8	6	3)	5.014	1.268	3.96	49.1	72.3
[3	-2	10]	(2	3	0)	(-4	9	3)	5.014	1.268	3.96	67.2	51.4
[3	-2	2]	(2	3	0)	(4	9	3)	5.014	1.268	3.96	46.8	80.9
[6	-4	-7]	(2	3	0)	(4	-1	4)	5.014	1.266	3.96	84.9	74.4
[6	-4	-5]	(2	3	0)	(4	1	4)	5.014	1.266	3.96	78.0	78.7
[9	-6	34]	(2	3	0)	(-6	8	3)	5.014	1.262	3.97	75.4	47.8
[9	-6	-2]	(2	3	0)	(6	8	3)	5.014	1.262	3.97	45.9	86.9
[12	-8	15]	(2	3	0)	(-3	3	4)	5.014	1.262	3.97	86.2	73.3
[12	-8	-3]	(2	3	0)	(3	3	4)	5.014	1.262	3.97	73.2	86.6
[6	-4	9]	(2	3	0)	(9	9	-2)	5.014	1.257	3.99	30.4	70.2
[9	-6	37]	(2	3	0)	(-9	5	3)	5.014	1.252	4.00	87.9	45.4
[9	-6	17]	(2	3	0)	(9	5	-3)	5.014	1.252	4.00	51.4	65.6
[12	-8	-15]	(2	3	0)	(5	0	4)	5.014	1.243	4.03	79.5	73.3
[3	-2	-11]	(2	3	0)	(-5	9	-3)	5.014	1.242	4.04	70.0	48.7
[3	-2	-1]	(2	3	0)	(-5	-9	3)	5.014	1.242	4.04	45.0	85.4
[6	-4	9]	(2	3	0)	(-4	3	4)	5.014	1.242	4.04	88.3	70.2
[6	-4	-3]	(2	3	0)	(4	3	4)	5.014	1.242	4.04	71.3	83.2
[12	-8	-17]	(2	3	0)	(5	-1	4)	5.014	1.240	4.04	82.9	71.2
[12	-8	-13]	(2	3	0)	(5	1	4)	5.014	1.240	4.04	76.1	75.4
[12	-8	-1]	(2	3	0)	(3	4	4)	5.014	1.240	4.04	70.0	88.9
[12	-8	13]	(2	3	0)	(-1	5	4)	5.014	1.236	4.06	75.3	75.4
[12	-8	7]	(2	3	0)	(1	5	4)	5.014	1.236	4.06	71.0	82.0
[12	-8	-19]	(2	3	0)	(5	-2	4)	5.014	1.231	4.07	86.3	69.2
[12	-8	-11]	(2	3	0)	(5	2	4)	5.014	1.231	4.07	72.8	77.6

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Anthophyllite (230) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[9	-6	10]	(2	3	0)	(8	7	-3)	5.014	1.228	4.08	46.2	75.1
[3	-2	-4]	(2	3	0)	(-2	5	-4)	5.014	1.228	4.08	77.5	72.3
[3	-2	1]	(2	3	0)	(2	5	4)	5.014	1.228	4.08	68.9	85.4
[9	-6	37]	(2	3	0)	(-7	8	3)	5.014	1.226	4.09	77.9	45.4
[9	-6	-5]	(2	3	0)	(7	8	3)	5.014	1.226	4.09	44.6	82.4
[12	-8	-21]	(2	3	0)	(5	-3	4)	5.014	1.217	4.12	89.6	67.2
[12	-8	-9]	(2	3	0)	(5	3	4)	5.014	1.217	4.12	69.5	79.8
[12	-8	19]	(2	3	0)	(-3	5	4)	5.014	1.214	4.13	79.7	69.2
[12	-8	-1]	(2	3	0)	(3	5	-4)	5.014	1.214	4.13	66.9	88.9
[3	-2	-5]	(2	3	0)	(6	-1	4)	5.014	1.211	4.14	81.0	68.2
[3	-2	-4]	(2	3	0)	(6	1	4)	5.014	1.211	4.14	74.4	72.3
[12	-8	15]	(2	3	0)	(-1	6	4)	5.014	1.205	4.16	72.3	73.3
[12	-8	9]	(2	3	0)	(1	6	4)	5.014	1.205	4.16	68.0	79.8
[12	-8	23]	(2	3	0)	(-5	4	4)	5.014	1.198	4.19	87.2	65.3
[12	-8	-7]	(2	3	0)	(5	4	4)	5.014	1.198	4.19	66.4	82.0
[6	-4	11]	(2	3	0)	(-4	5	4)	5.014	1.196	4.19	81.9	66.3
[6	-4	-1]	(2	3	0)	(4	5	4)	5.014	1.196	4.19	65.1	87.7
[3	-2	-6]	(2	3	0)	(6	-3	4)	5.014	1.189	4.22	87.6	64.4
[3	-2	-3]	(2	3	0)	(6	3	4)	5.014	1.189	4.22	67.9	76.5
[9	-6	8]	(2	3	0)	(8	8	-3)	5.014	1.187	4.22	43.6	78.0
[9	-6	13]	(2	3	0)	(-9	-7	3)	5.014	1.185	4.23	45.4	70.9
[12	-8	21]	(2	3	0)	(-3	6	4)	5.014	1.185	4.23	76.7	67.2
[12	-8	3]	(2	3	0)	(3	6	4)	5.014	1.185	4.23	64.0	86.6
[12	-8	-21]	(2	3	0)	(7	0	4)	5.014	1.181	4.25	76.0	67.2
[3	-2	-1]	(2	3	0)	(7	9	3)	5.014	1.179	4.25	42.2	85.4
[12	-8	-23]	(2	3	0)	(7	-1	4)	5.014	1.178	4.26	79.3	65.3
[12	-8	-19]	(2	3	0)	(7	1	4)	5.014	1.178	4.26	72.7	69.2
[12	-8	25]	(2	3	0)	(-5	5	4)	5.014	1.174	4.27	84.1	63.5
[12	-8	-5]	(2	3	0)	(5	5	4)	5.014	1.174	4.27	63.4	84.3
[12	-8	-25]	(2	3	0)	(7	-2	4)	5.014	1.171	4.28	82.5	63.5
[12	-8	17]	(2	3	0)	(7	2	-4)	5.014	1.171	4.28	69.5	71.2
[12	-8	11]	(2	3	0)	(1	7	4)	5.014	1.171	4.28	65.2	77.6
[3	-2	5]	(2	3	0)	(-2	7	4)	5.014	1.164	4.31	71.7	68.2
[3	-2	2]	(2	3	0)	(2	7	4)	5.014	1.164	4.31	63.2	80.9
[12	-8	-27]	(2	3	0)	(7	-3	4)	5.014	1.158	4.33	85.7	61.6
[12	-8	-15]	(2	3	0)	(7	3	4)	5.014	1.158	4.33	66.4	73.3
[12	-8	23]	(2	3	0)	(-3	7	4)	5.014	1.152	4.35	73.9	65.3
[12	-8	5]	(2	3	0)	(3	7	4)	5.014	1.152	4.35	61.3	84.3
[3	-2	7]	(2	3	0)	(-6	5	4)	5.014	1.149	4.36	86.1	60.8
[3	-2	2]	(2	3	0)	(6	5	-4)	5.014	1.149	4.36	61.8	80.9
[9	-6	11]	(2	3	0)	(-9	-8	3)	5.014	1.148	4.37	42.8	73.7
[12	-8	27]	(2	3	0)	(-5	6	4)	5.014	1.148	4.37	81.1	61.6
[12	-8	-3]	(2	3	0)	(5	6	4)	5.014	1.148	4.37	60.6	86.6
[3	-2	-2]	(2	3	0)	(8	9	3)	5.014	1.145	4.38	41.2	80.9
[6	-4	-13]	(2	3	0)	(8	-1	4)	5.014	1.144	4.38	77.6	62.5
[6	-4	-11]	(2	3	0)	(8	1	4)	5.014	1.144	4.38	71.2	66.3
[12	-8	-29]	(2	3	0)	(7	-4	4)	5.014	1.142	4.39	88.9	59.9
[12	-8	-13]	(2	3	0)	(7	4	4)	5.014	1.142	4.39	63.3	75.4

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Anthophyllite (230) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[6	-4	1]	(2	3	0)	(4	7	4)	5.014	1.137	4.41	59.5	87.7
[12	-8	19]	(2	3	0)	(-1	8	4)	5.014	1.135	4.42	66.9	69.2
[12	-8	13]	(2	3	0)	(1	8	4)	5.014	1.135	4.42	62.6	75.4
[6	-4	-15]	(2	3	0)	(8	-3	4)	5.014	1.126	4.45	84.0	59.1
[6	-4	-9]	(2	3	0)	(8	3	4)	5.014	1.126	4.45	65.0	70.2
[12	-8	-31]	(2	3	0)	(7	-5	4)	5.014	1.121	4.47	88.1	58.2
[12	-8	-11]	(2	3	0)	(7	5	4)	5.014	1.121	4.47	60.4	77.6
[12	-8	-29]	(2	3	0)	(-5	7	-4)	5.014	1.118	4.48	78.3	59.9
[12	-8	-1]	(2	3	0)	(5	7	4)	5.014	1.118	4.48	57.9	88.9
[12	-8	25]	(2	3	0)	(-3	8	4)	5.014	1.118	4.48	71.2	63.5
[12	-8	7]	(2	3	0)	(3	8	4)	5.014	1.118	4.48	58.8	82.0
[12	-8	-27]	(2	3	0)	(9	0	4)	5.014	1.111	4.51	73.0	61.6
[12	-8	-25]	(2	3	0)	(9	1	4)	5.014	1.109	4.52	69.9	63.5
[12	-8	-31]	(2	3	0)	(9	-2	4)	5.014	1.102	4.55	79.2	58.2
[12	-8	-23]	(2	3	0)	(9	2	4)	5.014	1.102	4.55	66.8	65.3
[12	-8	33]	(2	3	0)	(-7	6	4)	5.014	1.098	4.57	85.2	56.6
[12	-8	-9]	(2	3	0)	(7	6	4)	5.014	1.098	4.57	57.7	79.8
[12	-8	21]	(2	3	0)	(-1	9	4)	5.014	1.098	4.57	64.4	67.2
[12	-8	15]	(2	3	0)	(1	9	4)	5.014	1.098	4.57	60.3	73.3
[3	-2	8]	(2	3	0)	(-6	7	4)	5.014	1.096	4.57	80.4	57.4
[3	-2	-1]	(2	3	0)	(6	7	4)	5.014	1.096	4.57	56.4	85.4
[3	-2	6]	(2	3	0)	(-2	9	4)	5.014	1.092	4.59	66.6	64.4
[3	-2	3]	(2	3	0)	(2	9	4)	5.014	1.092	4.59	58.3	76.5
[12	-8	-33]	(2	3	0)	(9	-3	4)	5.014	1.092	4.59	82.3	56.6
[12	-8	-21]	(2	3	0)	(9	3	4)	5.014	1.092	4.59	63.8	67.2
[6	-4	17]	(2	3	0)	(-8	5	4)	5.014	1.092	4.59	90.0	55.8
[6	-4	-7]	(2	3	0)	(8	5	4)	5.014	1.092	4.59	59.2	74.4
[12	-8	31]	(2	3	0)	(-5	8	4)	5.014	1.087	4.61	75.6	58.2
[12	-8	1]	(2	3	0)	(5	8	4)	5.014	1.087	4.61	55.4	88.9
[12	-8	27]	(2	3	0)	(-3	9	4)	5.014	1.083	4.63	68.8	61.6
[12	-8	9]	(2	3	0)	(3	9	4)	5.014	1.083	4.63	56.5	79.8
[12	-8	-35]	(2	3	0)	(9	-4	4)	5.014	1.078	4.65	85.3	55.0
[12	-8	19]	(2	3	0)	(9	4	-4)	5.014	1.078	4.65	60.9	69.2
[12	-8	-35]	(2	3	0)	(7	-7	4)	5.014	1.072	4.68	82.4	55.0
[12	-8	-7]	(2	3	0)	(7	7	4)	5.014	1.072	4.68	55.1	82.0
[6	-4	-15]	(2	3	0)	(4	-9	4)	5.014	1.070	4.69	70.9	59.1
[6	-4	3]	(2	3	0)	(4	9	4)	5.014	1.070	4.69	54.7	83.2
[12	-8	-37]	(2	3	0)	(9	-5	4)	5.014	1.061	4.73	88.2	53.5
[12	-8	17]	(2	3	0)	(9	5	-4)	5.014	1.061	4.73	58.1	71.2
[15	-10	3]	(2	3	0)	(-1	0	5)	5.014	1.054	4.76	88.2	87.3
[12	-8	33]	(2	3	0)	(-5	9	4)	5.014	1.054	4.76	73.1	56.6
[12	-8	3]	(2	3	0)	(5	9	4)	5.014	1.054	4.76	53.1	86.6
[15	-10	2]	(2	3	0)	(0	1	5)	5.014	1.054	4.76	87.2	88.2
[3	-2	1]	(2	3	0)	(-1	1	5)	5.014	1.052	4.76	88.9	85.4
[15	-10	-1]	(2	3	0)	(1	1	5)	5.014	1.052	4.76	85.4	89.1
[15	-10	-6]	(2	3	0)	(2	0	5)	5.014	1.049	4.78	86.5	84.5
[15	-10	-8]	(2	3	0)	(2	-1	5)	5.014	1.047	4.79	89.3	82.7
[15	-10	-4]	(2	3	0)	(2	1	5)	5.014	1.047	4.79	83.7	86.3

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Anthophyllite (230) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U V W]	(h k 0)	(h k l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[15 -10 7]	(2 3 0)	(-1 2 5)	5.014	1.047	4.79	86.1	83.6
[15 -10 1]	(2 3 0)	(1 2 5)	5.014	1.047	4.79	82.6	89.1
[6 -4 19]	(2 3 0)	(-8 7 4)	5.014	1.046	4.79	84.3	52.8
[6 -4 5]	(2 3 0)	(8 7 -4)	5.014	1.046	4.79	53.9	78.7
[12 -8 37]	(2 3 0)	(-7 8 4)	5.014	1.044	4.80	79.7	53.5
[12 -8 5]	(2 3 0)	(7 8 -4)	5.014	1.044	4.80	52.7	84.3
[3 -2 2]	(2 3 0)	(-2 2 5)	5.014	1.042	4.81	87.9	80.9
[15 -10 -2]	(2 3 0)	(2 2 5)	5.014	1.042	4.81	80.9	88.2
[12 -8 39]	(2 3 0)	(-9 6 4)	5.014	1.041	4.82	88.9	52.1
[12 -8 -15]	(2 3 0)	(9 6 4)	5.014	1.041	4.82	55.4	73.3
[15 -10 -9]	(2 3 0)	(3 0 5)	5.014	1.041	4.82	84.8	81.8
[15 -10 6]	(2 3 0)	(0 3 5)	5.014	1.040	4.82	81.6	84.5
[15 -10 -11]	(2 3 0)	(3 -1 5)	5.014	1.039	4.83	87.6	80.0
[15 -10 -7]	(2 3 0)	(3 1 5)	5.014	1.039	4.83	81.9	83.6
[15 -10 9]	(2 3 0)	(-1 3 5)	5.014	1.038	4.83	83.4	81.8
[15 -10 3]	(2 3 0)	(1 3 5)	5.014	1.038	4.83	79.8	87.3
[3 -2 9]	(2 3 0)	(-6 9 4)	5.014	1.036	4.84	75.2	54.3
[3 -2 0]	(2 3 0)	(6 9 4)	5.014	1.036	4.84	51.7	90.0
[15 -10 13]	(2 3 0)	(-3 2 5)	5.014	1.034	4.85	89.6	78.3
[3 -2 -1]	(2 3 0)	(3 2 5)	5.014	1.034	4.85	79.2	85.4
[15 -10 -12]	(2 3 0)	(-2 3 -5)	5.014	1.033	4.85	85.1	79.1
[3 -2 0]	(2 3 0)	(-2 -3 5)	5.014	1.033	4.85	78.1	90.0
[15 -10 -12]	(2 3 0)	(4 0 5)	5.014	1.030	4.87	83.1	79.1
[15 -10 -14]	(2 3 0)	(4 -1 5)	5.014	1.028	4.88	85.9	77.4
[3 -2 -2]	(2 3 0)	(4 1 5)	5.014	1.028	4.88	80.3	80.9
[15 -10 11]	(2 3 0)	(-1 4 5)	5.014	1.026	4.89	80.6	80.0
[3 -2 1]	(2 3 0)	(1 4 5)	5.014	1.026	4.89	77.1	85.4
[3 -2 3]	(2 3 0)	(-3 3 5)	5.014	1.025	4.89	86.9	76.5
[15 -10 -3]	(2 3 0)	(3 3 5)	5.014	1.025	4.89	76.4	87.3
[15 -10 -16]	(2 3 0)	(4 -2 5)	5.014	1.023	4.90	88.6	75.6
[15 -10 -8]	(2 3 0)	(4 2 5)	5.014	1.023	4.90	77.5	82.7
[15 -10 14]	(2 3 0)	(-2 4 5)	5.014	1.021	4.91	82.4	77.4
[15 -10 2]	(2 3 0)	(2 4 5)	5.014	1.021	4.91	75.4	88.2
[12 -8 -41]	(2 3 0)	(9 -7 4)	5.014	1.019	4.92	86.2	50.7
[12 -8 -13]	(2 3 0)	(9 7 4)	5.014	1.019	4.92	52.9	75.4
[12 -8 39]	(2 3 0)	(-7 9 4)	5.014	1.015	4.94	77.2	52.1
[12 -8 -3]	(2 3 0)	(7 9 4)	5.014	1.015	4.94	50.4	86.6
[15 -10 18]	(2 3 0)	(-4 3 5)	5.014	1.015	4.94	88.6	73.9
[15 -10 -6]	(2 3 0)	(4 3 5)	5.014	1.015	4.94	74.8	84.5
[15 -10 -17]	(2 3 0)	(5 -1 5)	5.014	1.014	4.95	84.2	74.8
[15 -10 -13]	(2 3 0)	(5 1 5)	5.014	1.014	4.95	78.7	78.3
[15 -10 -1]	(2 3 0)	(3 4 5)	5.014	1.014	4.95	73.8	89.1
[15 -10 13]	(2 3 0)	(-1 5 5)	5.014	1.011	4.96	78.0	78.3
[15 -10 7]	(2 3 0)	(1 5 5)	5.014	1.011	4.96	74.5	83.6
[15 -10 -19]	(2 3 0)	(5 -2 5)	5.014	1.009	4.97	87.0	73.1
[15 -10 -11]	(2 3 0)	(5 2 5)	5.014	1.009	4.97	76.0	80.0
[15 -10 16]	(2 3 0)	(-2 5 5)	5.014	1.007	4.98	79.8	75.7
[15 -10 4]	(2 3 0)	(2 5 5)	5.014	1.007	4.98	72.8	86.3

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Anthophyllite (230) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-2	4]	(2	3	0)	(-4	4	5)	5.014	1.003	5.00	85.9	72.3
[15	-10	-4]	(2	3	0)	(4	4	5)	5.014	1.003	5.00	72.2	86.3
[15	-10	-21]	(2	3	0)	(5	-3	5)	5.014	1.001	5.01	89.7	71.4
[15	-10	-9]	(2	3	0)	(5	3	5)	5.014	1.001	5.01	73.3	81.8

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Anthophyllite (410) 482 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[1	-4	-1]	(4	1	0)	(1	0	1)	4.478	5.077	0.88	74.6	85.9
[1	-4	4]	(4	1	0)	(0	1	1)	4.478	5.064	0.88	85.9	74.1
[1	-4	-5]	(4	1	0)	(1	-1	1)	4.478	4.885	0.92	79.2	70.4
[1	-4	3]	(4	1	0)	(1	1	1)	4.478	4.885	0.92	71.1	77.9
[1	-4	-2]	(4	1	0)	(2	0	1)	4.478	4.586	0.98	61.3	81.9
[1	-4	-6]	(4	1	0)	(2	-1	1)	4.478	4.442	1.01	66.2	66.8
[1	-4	2]	(4	1	0)	(2	1	1)	4.478	4.442	1.01	58.2	81.9
[1	-4	-9]	(4	1	0)	(1	-2	1)	4.478	4.416	1.01	83.8	57.3
[1	-4	7]	(4	1	0)	(1	2	1)	4.478	4.416	1.01	69.2	63.4
[1	-4	10]	(4	1	0)	(2	-2	-1)	4.478	4.081	1.10	71.8	54.5
[1	-4	-6]	(4	1	0)	(-2	-2	1)	4.478	4.081	1.10	57.2	66.8
[1	-4	-3]	(4	1	0)	(3	0	1)	4.478	4.011	1.12	51.0	77.9
[1	-4	12]	(4	1	0)	(0	3	1)	4.478	3.954	1.13	80.5	49.4
[1	-4	-7]	(4	1	0)	(3	-1	1)	4.478	3.914	1.14	56.0	63.4
[1	-4	1]	(4	1	0)	(3	1	1)	4.478	3.914	1.14	48.0	85.9
[1	-4	-13]	(4	1	0)	(1	-3	1)	4.478	3.867	1.16	87.7	47.1
[1	-4	11]	(4	1	0)	(1	3	1)	4.478	3.867	1.16	68.6	51.9
[1	-4	-11]	(4	1	0)	(3	-2	1)	4.478	3.660	1.22	61.8	51.9
[1	-4	5]	(4	1	0)	(3	2	1)	4.478	3.660	1.22	47.4	70.4
[1	-4	-14]	(4	1	0)	(2	-3	1)	4.478	3.636	1.23	76.8	45.0
[1	-4	10]	(4	1	0)	(2	3	1)	4.478	3.636	1.23	57.8	54.5
[1	-4	-4]	(4	1	0)	(4	0	1)	4.478	3.479	1.29	43.3	74.1
[1	-4	-8]	(4	1	0)	(4	-1	1)	4.478	3.415	1.31	48.1	60.3
[1	-4	0]	(4	1	0)	(4	1	-1)	4.478	3.415	1.31	40.3	90.0
[1	-4	9]	(4	1	0)	(3	3	1)	4.478	3.329	1.35	48.5	57.3
[1	-4	-12]	(4	1	0)	(4	-2	1)	4.478	3.243	1.38	54.0	49.4
[1	-4	4]	(4	1	0)	(4	2	1)	4.478	3.243	1.38	39.7	74.1
[1	-4	14]	(4	1	0)	(2	4	1)	4.478	3.203	1.40	59.1	45.0
[1	-4	-5]	(4	1	0)	(5	0	1)	4.478	3.030	1.48	37.5	70.4
[1	-4	8]	(4	1	0)	(4	3	1)	4.478	3.005	1.49	41.0	60.3
[1	-4	-9]	(4	1	0)	(5	-1	1)	4.478	2.988	1.50	42.3	57.3
[1	-4	-1]	(4	1	0)	(5	1	1)	4.478	2.988	1.50	34.6	85.9
[1	-4	-13]	(4	1	0)	(3	4	-1)	4.478	2.987	1.50	50.5	47.1
[1	-4	13]	(4	1	0)	(-5	2	1)	4.478	2.870	1.56	47.9	47.1
[1	-4	3]	(4	1	0)	(5	2	1)	4.478	2.870	1.56	33.8	77.9
[1	-4	12]	(4	1	0)	(4	4	1)	4.478	2.747	1.63	43.2	49.4
[1	-4	7]	(4	1	0)	(5	3	1)	4.478	2.702	1.66	34.9	63.4
[1	-4	-6]	(4	1	0)	(6	0	1)	4.478	2.663	1.68	33.3	66.8
[1	-4	0]	(4	1	0)	(0	0	2)	4.478	2.640	1.70	90.0	90.0
[1	-4	10]	(4	1	0)	(6	-1	-1)	4.478	2.634	1.70	37.8	54.5
[1	-4	-2]	(4	1	0)	(6	1	1)	4.478	2.634	1.70	30.3	81.9
[2	-8	-1]	(4	1	0)	(1	0	2)	4.478	2.614	1.71	82.1	88.0
[2	-8	-5]	(4	1	0)	(1	-1	2)	4.478	2.586	1.73	84.3	79.9
[2	-8	3]	(4	1	0)	(1	1	2)	4.478	2.586	1.73	80.1	83.9
[1	-4	-14]	(4	1	0)	(6	-2	1)	4.478	2.552	1.75	43.1	45.0
[1	-4	2]	(4	1	0)	(6	2	1)	4.478	2.552	1.75	29.2	81.9
[1	-4	-3]	(4	1	0)	(2	-1	2)	4.478	2.513	1.78	76.8	77.9
[1	-4	1]	(4	1	0)	(2	1	2)	4.478	2.513	1.78	72.6	85.9

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Anthophyllite (410) 482 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[1	-4	11]	(4	1	0)	(5	4	1)	4.478	2.509	1.78	37.2	51.9
[2	-8	-9]	(4	1	0)	(1	-2	2)	4.478	2.509	1.78	86.5	72.2
[2	-8	7]	(4	1	0)	(1	2	2)	4.478	2.509	1.78	78.4	76.0
[1	-4	6]	(4	1	0)	(6	3	1)	4.478	2.431	1.84	30.1	66.8
[2	-8	-3]	(4	1	0)	(3	0	2)	4.478	2.427	1.85	67.6	83.9
[2	-8	-7]	(4	1	0)	(3	-1	2)	4.478	2.405	1.86	69.9	76.0
[2	-8	1]	(4	1	0)	(3	1	2)	4.478	2.405	1.86	65.7	88.0
[2	-8	-13]	(4	1	0)	(1	-3	2)	4.478	2.394	1.87	88.6	65.1
[2	-8	11]	(4	1	0)	(1	3	2)	4.478	2.394	1.87	77.0	68.6
[1	-4	-7]	(4	1	0)	(7	0	1)	4.478	2.363	1.89	30.0	63.4
[1	-4	-11]	(4	1	0)	(7	-1	1)	4.478	2.343	1.91	34.4	51.9
[1	-4	-3]	(4	1	0)	(7	1	1)	4.478	2.343	1.91	27.0	77.9
[2	-8	-11]	(4	1	0)	(3	-2	2)	4.478	2.342	1.91	72.4	68.6
[2	-8	5]	(4	1	0)	(3	2	2)	4.478	2.342	1.91	64.3	79.9
[1	-4	-7]	(4	1	0)	(2	-3	2)	4.478	2.336	1.92	81.6	63.4
[1	-4	5]	(4	1	0)	(2	3	2)	4.478	2.336	1.92	70.0	70.4
[1	-4	1]	(4	1	0)	(7	2	1)	4.478	2.285	1.96	25.7	85.9
[1	-4	-4]	(4	1	0)	(4	-1	2)	4.478	2.274	1.97	63.6	74.1
[1	-4	0]	(4	1	0)	(4	1	2)	4.478	2.274	1.97	59.5	90.0
[1	-4	8]	(4	1	0)	(0	4	2)	4.478	2.274	1.97	82.7	60.3
[2	-8	17]	(4	1	0)	(-1	4	2)	4.478	2.257	1.98	89.5	58.7
[2	-8	15]	(4	1	0)	(1	4	2)	4.478	2.257	1.98	75.9	61.8
[2	-8	15]	(4	1	0)	(3	-3	-2)	4.478	2.248	1.99	75.0	61.8
[2	-8	9]	(4	1	0)	(3	3	2)	4.478	2.248	1.99	63.4	72.2
[1	-4	5]	(4	1	0)	(7	3	1)	4.478	2.197	2.04	26.2	70.4
[2	-8	-5]	(4	1	0)	(5	0	2)	4.478	2.149	2.08	55.8	79.9
[1	-4	-8]	(4	1	0)	(4	-3	2)	4.478	2.140	2.09	69.0	60.3
[1	-4	4]	(4	1	0)	(4	3	2)	4.478	2.140	2.09	57.5	74.1
[1	-4	-14]	(4	1	0)	(6	5	-1)	4.478	2.136	2.10	34.9	45.0
[2	-8	9]	(4	1	0)	(-5	1	2)	4.478	2.134	2.10	58.1	72.2
[2	-8	-1]	(4	1	0)	(5	1	2)	4.478	2.134	2.10	54.0	88.0
[2	-8	-19]	(4	1	0)	(3	-4	2)	4.478	2.133	2.10	77.5	55.9
[2	-8	-13]	(4	1	0)	(3	4	-2)	4.478	2.133	2.10	63.0	65.1
[1	-4	-8]	(4	1	0)	(8	0	1)	4.478	2.118	2.11	27.5	60.3
[2	-8	21]	(4	1	0)	(-1	5	2)	4.478	2.111	2.12	87.9	53.1
[2	-8	19]	(4	1	0)	(1	5	2)	4.478	2.111	2.12	75.0	55.9
[1	-4	-12]	(4	1	0)	(8	-1	1)	4.478	2.104	2.13	31.6	49.4
[1	-4	-4]	(4	1	0)	(8	1	1)	4.478	2.104	2.13	24.5	74.1
[1	-4	9]	(4	1	0)	(7	4	1)	4.478	2.090	2.14	28.1	57.3
[2	-8	-13]	(4	1	0)	(5	-2	2)	4.478	2.090	2.14	60.8	65.1
[2	-8	3]	(4	1	0)	(5	2	2)	4.478	2.090	2.14	52.8	83.9
[1	-4	-11]	(4	1	0)	(2	-5	2)	4.478	2.071	2.16	85.9	51.9
[1	-4	9]	(4	1	0)	(2	5	2)	4.478	2.071	2.16	68.8	57.3
[1	-4	0]	(4	1	0)	(8	2	-1)	4.478	2.061	2.17	23.0	90.0
[2	-8	-17]	(4	1	0)	(5	-3	2)	4.478	2.022	2.21	63.6	58.7
[2	-8	7]	(4	1	0)	(5	3	2)	4.478	2.022	2.21	52.1	76.0
[2	-8	-23]	(4	1	0)	(3	-5	2)	4.478	2.009	2.23	79.9	50.6
[2	-8	17]	(4	1	0)	(3	5	2)	4.478	2.009	2.23	62.9	58.7

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Anthophyllite (410) 482 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[1	-4	4]	(4	1	0)	(8	3	1)	4.478	1.996	2.24	23.2	74.1
[1	-4	-5]	(4	1	0)	(6	-1	2)	4.478	1.993	2.25	53.3	70.4
[1	-4	-1]	(4	1	0)	(6	1	2)	4.478	1.993	2.25	49.2	85.9
[1	-4	-13]	(4	1	0)	(7	5	-1)	4.478	1.972	2.27	30.6	47.1
[2	-8	-25]	(4	1	0)	(1	-6	2)	4.478	1.966	2.28	86.4	48.3
[2	-8	23]	(4	1	0)	(1	6	2)	4.478	1.966	2.28	74.5	50.6
[2	-8	-21]	(4	1	0)	(5	-4	2)	4.478	1.937	2.31	66.5	53.1
[2	-8	11]	(4	1	0)	(5	4	2)	4.478	1.937	2.31	52.0	68.6
[1	-4	-12]	(4	1	0)	(4	-5	2)	4.478	1.931	2.32	74.4	49.4
[1	-4	8]	(4	1	0)	(4	5	2)	4.478	1.931	2.32	57.4	60.3
[1	-4	-9]	(4	1	0)	(9	0	1)	4.478	1.916	2.34	25.5	57.3
[1	-4	8]	(4	1	0)	(8	4	1)	4.478	1.915	2.34	24.7	60.3
[1	-4	-13]	(4	1	0)	(9	-1	1)	4.478	1.905	2.35	29.5	47.1
[1	-4	-5]	(4	1	0)	(9	1	1)	4.478	1.905	2.35	22.5	70.4
[1	-4	-9]	(4	1	0)	(6	-3	2)	4.478	1.901	2.36	58.9	57.3
[1	-4	3]	(4	1	0)	(6	3	2)	4.478	1.901	2.36	47.4	77.9
[2	-8	-27]	(4	1	0)	(3	-6	2)	4.478	1.883	2.38	82.1	46.1
[2	-8	-21]	(4	1	0)	(3	6	-2)	4.478	1.883	2.38	63.0	53.1
[1	-4	1]	(4	1	0)	(-9	-2	1)	4.478	1.873	2.39	20.8	85.9
[2	-8	-7]	(4	1	0)	(7	0	2)	4.478	1.868	2.40	46.8	76.0
[2	-8	-11]	(4	1	0)	(7	-1	2)	4.478	1.858	2.41	49.1	68.6
[2	-8	-3]	(4	1	0)	(7	1	2)	4.478	1.858	2.41	45.0	83.9
[2	-8	-25]	(4	1	0)	(5	-5	2)	4.478	1.843	2.43	69.3	48.3
[2	-8	15]	(4	1	0)	(5	5	2)	4.478	1.843	2.43	52.3	61.8
[2	-8	-15]	(4	1	0)	(7	-2	2)	4.478	1.828	2.45	51.8	61.8
[2	-8	1]	(4	1	0)	(7	2	2)	4.478	1.828	2.45	43.9	88.0
[2	-8	27]	(4	1	0)	(1	7	2)	4.478	1.828	2.45	74.1	46.1
[1	-4	3]	(4	1	0)	(9	3	1)	4.478	1.824	2.46	20.7	77.9
[1	-4	-12]	(4	1	0)	(8	5	-1)	4.478	1.823	2.46	27.0	49.4
[1	-4	13]	(4	1	0)	(2	7	2)	4.478	1.802	2.49	68.6	47.1
[2	-8	-19]	(4	1	0)	(7	-3	2)	4.478	1.782	2.51	54.7	55.9
[2	-8	5]	(4	1	0)	(7	3	2)	4.478	1.782	2.51	43.3	79.9
[1	-4	7]	(4	1	0)	(9	4	1)	4.478	1.761	2.54	21.9	63.4
[2	-8	25]	(4	1	0)	(3	7	2)	4.478	1.760	2.54	63.3	48.3
[3	-12	-1]	(4	1	0)	(1	0	3)	4.478	1.752	2.56	84.7	88.6
[3	-12	4]	(4	1	0)	(0	1	3)	4.478	1.752	2.56	88.6	84.6
[1	-4	-13]	(4	1	0)	(6	-5	2)	4.478	1.750	2.56	64.7	47.1
[1	-4	-7]	(4	1	0)	(6	5	-2)	4.478	1.750	2.56	47.8	63.4
[3	-12	5]	(4	1	0)	(-1	1	3)	4.478	1.744	2.57	86.2	83.2
[1	-4	1]	(4	1	0)	(1	1	3)	4.478	1.744	2.57	83.4	85.9
[2	-8	19]	(4	1	0)	(5	6	2)	4.478	1.744	2.57	52.9	55.9
[1	-4	-6]	(4	1	0)	(8	-1	2)	4.478	1.731	2.59	45.5	66.8
[1	-4	-2]	(4	1	0)	(8	1	2)	4.478	1.731	2.59	41.5	81.9
[3	-12	-2]	(4	1	0)	(2	0	3)	4.478	1.729	2.59	79.6	87.3
[2	-8	-23]	(4	1	0)	(7	-4	2)	4.478	1.724	2.60	57.6	50.6
[2	-8	9]	(4	1	0)	(7	4	2)	4.478	1.724	2.60	43.3	72.2
[1	-4	-2]	(4	1	0)	(2	-1	3)	4.478	1.721	2.60	81.0	81.9
[3	-12	2]	(4	1	0)	(2	1	3)	4.478	1.721	2.60	78.2	87.3

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Anthophyllite (410) 482 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[1	-4	-3]	(4	1	0)	(1	-2	3)	4.478	1.719	2.60	87.6	77.9
[3	-12	7]	(4	1	0)	(1	2	3)	4.478	1.719	2.60	82.1	80.5
[1	-4	-12]	(4	1	0)	(-4	-7	2)	4.478	1.707	2.62	58.4	49.4
[3	-12	-10]	(4	1	0)	(2	-2	3)	4.478	1.698	2.64	82.5	76.6
[1	-4	2]	(4	1	0)	(2	2	3)	4.478	1.698	2.64	77.0	81.9
[1	-4	11]	(4	1	0)	(9	5	1)	4.478	1.689	2.65	24.0	51.9
[3	-12	1]	(4	1	0)	(3	1	3)	4.478	1.685	2.66	73.3	88.6
[3	-12	-13]	(4	1	0)	(1	-3	3)	4.478	1.681	2.66	89.0	72.8
[3	-12	11]	(4	1	0)	(1	3	3)	4.478	1.681	2.66	80.9	75.3
[1	-4	-10]	(4	1	0)	(8	-3	2)	4.478	1.670	2.68	51.0	54.5
[1	-4	2]	(4	1	0)	(8	3	2)	4.478	1.670	2.68	39.7	81.9
[3	-12	5]	(4	1	0)	(3	2	3)	4.478	1.663	2.69	72.1	83.2
[3	-12	-14]	(4	1	0)	(2	-3	3)	4.478	1.661	2.70	84.0	71.6
[3	-12	10]	(4	1	0)	(2	3	3)	4.478	1.661	2.70	75.9	76.6
[2	-8	27]	(4	1	0)	(7	-5	-2)	4.478	1.656	2.70	60.6	46.1
[2	-8	13]	(4	1	0)	(7	5	2)	4.478	1.656	2.70	43.7	65.1
[2	-8	23]	(4	1	0)	(5	7	2)	4.478	1.645	2.72	53.7	50.6
[3	-12	-4]	(4	1	0)	(4	0	3)	4.478	1.645	2.72	69.9	84.6
[3	-12	-8]	(4	1	0)	(4	-1	3)	4.478	1.638	2.73	71.3	79.2
[1	-4	0]	(4	1	0)	(4	1	3)	4.478	1.638	2.73	68.5	90.0
[3	-12	17]	(4	1	0)	(-1	4	3)	4.478	1.631	2.74	89.7	68.0
[1	-4	5]	(4	1	0)	(1	4	3)	4.478	1.631	2.74	79.8	70.4
[2	-8	-9]	(4	1	0)	(9	0	2)	4.478	1.622	2.76	40.2	72.2
[2	-8	-13]	(4	1	0)	(9	-1	2)	4.478	1.615	2.77	42.4	65.1
[2	-8	-5]	(4	1	0)	(9	1	2)	4.478	1.615	2.77	38.4	79.9
[1	-4	-6]	(4	1	0)	(2	-4	3)	4.478	1.613	2.78	85.5	66.8
[3	-12	14]	(4	1	0)	(2	4	3)	4.478	1.613	2.78	75.0	71.6
[2	-8	-1]	(4	1	0)	(9	2	2)	4.478	1.596	2.81	37.2	88.0
[3	-12	-5]	(4	1	0)	(5	0	3)	4.478	1.589	2.82	65.4	83.2
[3	-12	-16]	(4	1	0)	(4	-3	3)	4.478	1.586	2.82	74.6	69.2
[3	-12	8]	(4	1	0)	(4	3	3)	4.478	1.586	2.82	66.5	79.2
[1	-4	-3]	(4	1	0)	(5	-1	3)	4.478	1.583	2.83	66.9	77.9
[3	-12	-1]	(4	1	0)	(5	1	3)	4.478	1.583	2.83	64.1	88.6
[2	-8	17]	(4	1	0)	(7	6	2)	4.478	1.583	2.83	44.5	58.7
[3	-12	-19]	(4	1	0)	(3	-4	3)	4.478	1.583	2.83	80.8	65.7
[3	-12	13]	(4	1	0)	(3	4	3)	4.478	1.583	2.83	70.3	72.8
[3	-12	20]	(4	1	0)	(0	5	3)	4.478	1.579	2.84	83.7	64.5
[1	-4	11]	(4	1	0)	(6	7	2)	4.478	1.578	2.84	49.5	51.9
[1	-4	7]	(4	1	0)	(-1	5	3)	4.478	1.574	2.85	88.4	63.4
[3	-12	19]	(4	1	0)	(1	5	3)	4.478	1.574	2.85	78.9	65.7
[2	-8	-21]	(4	1	0)	(9	-3	2)	4.478	1.565	2.86	47.8	53.1
[2	-8	3]	(4	1	0)	(9	3	2)	4.478	1.565	2.86	36.6	83.9
[3	-12	-13]	(4	1	0)	(5	-2	3)	4.478	1.565	2.86	68.5	72.8
[1	-4	1]	(4	1	0)	(5	2	3)	4.478	1.565	2.86	63.0	85.9
[1	-4	14]	(4	1	0)	(8	-5	-2)	4.478	1.565	2.86	56.9	45.0
[1	-4	-6]	(4	1	0)	(-8	-5	2)	4.478	1.565	2.86	40.1	66.8
[3	-12	-22]	(4	1	0)	(2	-5	3)	4.478	1.557	2.88	86.9	62.4
[1	-4	-6]	(4	1	0)	(2	5	-3)	4.478	1.557	2.88	74.2	66.8

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Anthophyllite (410) 482 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[2	-8	-27]	(4	1	0)	(-5	-8	2)	4.478	1.550	2.89	54.6	46.1
[3	-12	-20]	(4	1	0)	(4	-4	3)	4.478	1.544	2.90	76.3	64.5
[1	-4	4]	(4	1	0)	(4	4	3)	4.478	1.544	2.90	65.8	74.1
[3	-12	-17]	(4	1	0)	(5	-3	3)	4.478	1.536	2.92	70.3	68.0
[3	-12	7]	(4	1	0)	(5	3	3)	4.478	1.536	2.92	62.2	80.5
[3	-12	-23]	(4	1	0)	(3	-5	3)	4.478	1.530	2.93	82.3	61.3
[3	-12	17]	(4	1	0)	(3	5	3)	4.478	1.530	2.93	69.7	68.0
[2	-8	-25]	(4	1	0)	(9	-4	2)	4.478	1.525	2.94	50.7	48.3
[2	-8	7]	(4	1	0)	(9	4	2)	4.478	1.525	2.94	36.5	76.0
[3	-12	-10]	(4	1	0)	(6	-1	3)	4.478	1.523	2.94	62.8	76.6
[3	-12	-2]	(4	1	0)	(6	1	3)	4.478	1.523	2.94	60.0	87.3
[3	-12	25]	(4	1	0)	(-1	6	3)	4.478	1.511	2.96	87.3	59.2
[3	-12	-23]	(4	1	0)	(1	6	-3)	4.478	1.511	2.96	78.1	61.3
[2	-8	-21]	(4	1	0)	(-7	-7	2)	4.478	1.508	2.97	45.6	53.1
[3	-12	-14]	(4	1	0)	(6	-2	3)	4.478	1.507	2.97	64.5	71.6
[3	-12	2]	(4	1	0)	(6	2	3)	4.478	1.507	2.97	59.0	87.3
[1	-4	-7]	(4	1	0)	(5	-4	3)	4.478	1.498	2.99	72.1	63.4
[3	-12	11]	(4	1	0)	(5	4	3)	4.478	1.498	2.99	61.6	75.3
[3	-12	-26]	(4	1	0)	(2	-6	3)	4.478	1.496	2.99	88.2	58.3
[3	-12	22]	(4	1	0)	(2	6	3)	4.478	1.496	2.99	73.6	62.4
[1	-4	-8]	(4	1	0)	(4	-5	3)	4.478	1.495	3.00	78.0	60.3
[3	-12	16]	(4	1	0)	(4	5	3)	4.478	1.495	3.00	65.3	69.2
[2	-8	11]	(4	1	0)	(9	5	2)	4.478	1.477	3.03	37.0	68.6
[3	-12	-11]	(4	1	0)	(7	-1	3)	4.478	1.460	3.07	59.0	75.3
[1	-4	-1]	(4	1	0)	(7	1	3)	4.478	1.460	3.07	56.3	85.9
[3	-12	-25]	(4	1	0)	(5	-5	3)	4.478	1.453	3.08	73.8	59.2
[1	-4	5]	(4	1	0)	(5	5	3)	4.478	1.453	3.08	61.2	70.4
[3	-12	28]	(4	1	0)	(0	7	3)	4.478	1.450	3.09	81.8	56.3
[3	-12	-22]	(4	1	0)	(6	-4	3)	4.478	1.446	3.10	68.1	62.4
[3	-12	10]	(4	1	0)	(6	4	3)	4.478	1.446	3.10	57.7	76.6
[1	-4	-5]	(4	1	0)	(7	-2	3)	4.478	1.446	3.10	60.7	70.4
[3	-12	1]	(4	1	0)	(7	2	3)	4.478	1.446	3.10	55.2	88.6
[3	-12	29]	(4	1	0)	(-1	7	3)	4.478	1.445	3.10	86.2	55.4
[1	-4	9]	(4	1	0)	(1	7	3)	4.478	1.445	3.10	77.5	57.3
[3	-12	-28]	(4	1	0)	(4	-6	3)	4.478	1.440	3.11	79.6	56.3
[3	-12	20]	(4	1	0)	(4	6	3)	4.478	1.440	3.11	65.0	64.5
[1	-4	10]	(4	1	0)	(8	7	2)	4.478	1.438	3.11	42.0	54.5
[2	-8	-25]	(4	1	0)	(7	8	-2)	4.478	1.434	3.12	46.7	48.3
[1	-4	10]	(4	1	0)	(-2	7	3)	4.478	1.432	3.13	89.4	54.5
[3	-12	26]	(4	1	0)	(2	7	3)	4.478	1.432	3.13	73.1	58.3
[2	-8	15]	(4	1	0)	(9	6	2)	4.478	1.425	3.14	37.8	61.8
[3	-12	-19]	(4	1	0)	(7	-3	3)	4.478	1.423	3.15	62.5	65.7
[3	-12	5]	(4	1	0)	(7	3	3)	4.478	1.423	3.15	54.5	83.2
[3	-12	-31]	(4	1	0)	(3	-7	3)	4.478	1.411	3.17	85.2	53.6
[3	-12	25]	(4	1	0)	(3	7	3)	4.478	1.411	3.17	68.9	59.2
[3	-12	-26]	(4	1	0)	(6	-5	3)	4.478	1.406	3.19	69.9	58.3
[3	-12	14]	(4	1	0)	(6	5	3)	4.478	1.406	3.19	57.3	71.6
[3	-12	-29]	(4	1	0)	(5	-6	3)	4.478	1.403	3.19	75.6	55.4

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Anthophyllite (410) 482 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-12	19]	(4	1	0)	(5	6	3)	4.478	1.403	3.19	61.0	65.7
[3	-12	-8]	(4	1	0)	(8	0	3)	4.478	1.401	3.20	54.1	79.2
[1	-4	-4]	(4	1	0)	(8	-1	3)	4.478	1.396	3.21	55.6	74.1
[3	-12	-4]	(4	1	0)	(8	1	3)	4.478	1.396	3.21	52.8	84.6
[3	-12	-23]	(4	1	0)	(7	-4	3)	4.478	1.392	3.22	64.4	61.3
[1	-4	3]	(4	1	0)	(7	4	3)	4.478	1.392	3.22	54.0	77.9
[3	-12	-16]	(4	1	0)	(8	-2	3)	4.478	1.384	3.24	57.3	69.2
[1	-4	0]	(4	1	0)	(8	2	3)	4.478	1.384	3.24	51.8	90.0
[3	-12	-32]	(4	1	0)	(4	-7	3)	4.478	1.383	3.24	81.1	52.7
[1	-4	8]	(4	1	0)	(4	7	3)	4.478	1.383	3.24	64.9	60.3
[1	-4	11]	(4	1	0)	(-1	8	3)	4.478	1.379	3.25	85.3	51.9
[3	-12	31]	(4	1	0)	(1	8	3)	4.478	1.379	3.25	76.9	53.6
[2	-8	19]	(4	1	0)	(9	7	2)	4.478	1.370	3.27	38.8	55.9
[3	-12	34]	(4	1	0)	(-2	8	3)	4.478	1.368	3.27	89.4	51.0
[1	-4	-10]	(4	1	0)	(2	8	-3)	4.478	1.368	3.27	72.8	54.5
[3	-12	20]	(4	1	0)	(-8	3	3)	4.478	1.363	3.28	59.1	64.5
[3	-12	4]	(4	1	0)	(8	3	3)	4.478	1.363	3.28	51.1	84.6
[1	-4	-11]	(4	1	0)	(5	-7	3)	4.478	1.350	3.32	77.2	51.9
[3	-12	23]	(4	1	0)	(5	7	3)	4.478	1.350	3.32	61.0	61.3
[3	-12	-35]	(4	1	0)	(3	-8	3)	4.478	1.350	3.32	86.5	50.2
[3	-12	29]	(4	1	0)	(3	8	3)	4.478	1.350	3.32	68.7	55.4
[1	-4	-8]	(4	1	0)	(8	-4	3)	4.478	1.337	3.35	61.0	60.3
[3	-12	8]	(4	1	0)	(8	4	3)	4.478	1.337	3.35	50.6	79.2
[3	-12	-13]	(4	1	0)	(9	-1	3)	4.478	1.333	3.36	52.5	72.8
[3	-12	-5]	(4	1	0)	(9	1	3)	4.478	1.333	3.36	49.7	83.2
[1	-4	-12]	(4	1	0)	(4	-8	3)	4.478	1.325	3.38	82.6	49.4
[3	-12	28]	(4	1	0)	(4	8	3)	4.478	1.325	3.38	64.8	56.3
[3	-12	-17]	(4	1	0)	(9	-2	3)	4.478	1.322	3.39	54.1	68.0
[3	-12	-1]	(4	1	0)	(9	2	3)	4.478	1.322	3.39	48.7	88.6
[4	-16	-1]	(4	1	0)	(1	0	4)	4.478	1.317	3.40	86.0	89.0
[3	-12	-31]	(4	1	0)	(7	-6	3)	4.478	1.315	3.41	68.2	53.6
[3	-12	17]	(4	1	0)	(7	6	3)	4.478	1.315	3.41	53.7	68.0
[3	-12	37]	(4	1	0)	(-1	9	3)	4.478	1.315	3.41	84.5	48.6
[3	-12	35]	(4	1	0)	(1	9	3)	4.478	1.315	3.41	76.5	50.2
[2	-8	23]	(4	1	0)	(9	8	2)	4.478	1.313	3.41	40.1	50.6
[4	-16	-5]	(4	1	0)	(1	-1	4)	4.478	1.313	3.41	87.1	84.9
[4	-16	3]	(4	1	0)	(1	1	4)	4.478	1.313	3.41	85.0	86.9
[3	-12	-34]	(4	1	0)	(6	-7	3)	4.478	1.312	3.41	73.5	51.0
[3	-12	22]	(4	1	0)	(6	7	3)	4.478	1.312	3.41	57.3	62.4
[1	-4	14]	(4	1	0)	(8	9	2)	4.478	1.309	3.42	44.5	45.0
[3	-12	38]	(4	1	0)	(-2	9	3)	4.478	1.305	3.43	88.4	47.9
[3	-12	34]	(4	1	0)	(2	9	3)	4.478	1.305	3.43	72.5	51.0
[3	-12	28]	(4	1	0)	(8	-5	-3)	4.478	1.304	3.43	62.9	56.3
[1	-4	-4]	(4	1	0)	(-8	-5	3)	4.478	1.304	3.43	50.4	74.1
[2	-8	-3]	(4	1	0)	(2	-1	4)	4.478	1.303	3.44	83.2	83.9
[2	-8	1]	(4	1	0)	(2	1	4)	4.478	1.303	3.44	81.1	88.0
[4	-16	-9]	(4	1	0)	(1	-2	4)	4.478	1.303	3.44	88.2	80.9
[4	-16	7]	(4	1	0)	(1	2	4)	4.478	1.303	3.44	84.0	82.9

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-12	-37]	(4	1	0)	(5	-8	3)	4.478	1.296	3.46	78.8	48.6
[1	-4	9]	(4	1	0)	(5	8	3)	4.478	1.296	3.46	61.1	57.3
[4	-16	-3]	(4	1	0)	(3	0	4)	4.478	1.291	3.47	78.3	86.9
[4	-16	-7]	(4	1	0)	(3	-1	4)	4.478	1.287	3.48	79.4	82.9
[4	-16	1]	(4	1	0)	(3	1	4)	4.478	1.287	3.48	77.3	89.0
[4	-16	-13]	(4	1	0)	(1	-3	4)	4.478	1.286	3.48	89.2	76.9
[4	-16	11]	(4	1	0)	(1	3	4)	4.478	1.286	3.48	83.0	78.9
[3	-12	-25]	(4	1	0)	(9	-4	3)	4.478	1.281	3.50	57.9	59.2
[3	-12	7]	(4	1	0)	(9	4	3)	4.478	1.281	3.50	47.5	80.5
[4	-16	-11]	(4	1	0)	(3	-2	4)	4.478	1.278	3.51	80.5	78.9
[4	-16	5]	(4	1	0)	(3	2	4)	4.478	1.278	3.51	76.3	84.9
[2	-8	-7]	(4	1	0)	(2	-3	4)	4.478	1.277	3.51	85.4	76.0
[2	-8	5]	(4	1	0)	(2	3	4)	4.478	1.277	3.51	79.2	79.9
[3	-12	-35]	(4	1	0)	(7	-7	3)	4.478	1.271	3.52	70.0	50.2
[1	-4	7]	(4	1	0)	(7	7	3)	4.478	1.271	3.52	53.8	63.4
[3	-12	-40]	(4	1	0)	(4	-9	3)	4.478	1.268	3.53	83.9	46.4
[3	-12	32]	(4	1	0)	(4	9	3)	4.478	1.268	3.53	64.9	52.7
[1	-4	-2]	(4	1	0)	(4	-1	4)	4.478	1.266	3.54	75.7	81.9
[1	-4	0]	(4	1	0)	(4	1	4)	4.478	1.266	3.54	73.6	90.0
[3	-12	-38]	(4	1	0)	(6	-8	3)	4.478	1.262	3.55	75.2	47.9
[3	-12	-26]	(4	1	0)	(6	8	-3)	4.478	1.262	3.55	57.5	58.3
[4	-16	15]	(4	1	0)	(-3	3	4)	4.478	1.262	3.55	81.7	75.0
[4	-16	9]	(4	1	0)	(3	3	4)	4.478	1.262	3.55	75.5	80.9
[2	-8	27]	(4	1	0)	(9	9	2)	4.478	1.257	3.56	41.4	46.1
[3	-12	29]	(4	1	0)	(9	-5	-3)	4.478	1.252	3.58	59.8	55.4
[3	-12	-11]	(4	1	0)	(9	5	-3)	4.478	1.252	3.58	47.4	75.3
[4	-16	-5]	(4	1	0)	(5	0	4)	4.478	1.243	3.60	71.0	84.9
[3	-12	-41]	(4	1	0)	(5	-9	3)	4.478	1.242	3.61	80.3	45.7
[3	-12	31]	(4	1	0)	(5	9	3)	4.478	1.242	3.61	61.2	53.6
[1	-4	-4]	(4	1	0)	(4	-3	4)	4.478	1.242	3.61	78.0	74.1
[1	-4	2]	(4	1	0)	(4	3	4)	4.478	1.242	3.61	71.8	81.9
[4	-16	-9]	(4	1	0)	(5	-1	4)	4.478	1.240	3.61	72.1	80.9
[4	-16	-1]	(4	1	0)	(5	1	4)	4.478	1.240	3.61	70.0	89.0
[4	-16	-19]	(4	1	0)	(3	-4	4)	4.478	1.240	3.61	82.8	71.3
[4	-16	13]	(4	1	0)	(3	4	4)	4.478	1.240	3.61	74.7	76.9
[4	-16	21]	(4	1	0)	(-1	5	4)	4.478	1.236	3.62	88.8	69.5
[4	-16	19]	(4	1	0)	(1	5	4)	4.478	1.236	3.62	81.3	71.3
[4	-16	-13]	(4	1	0)	(5	-2	4)	4.478	1.231	3.64	73.3	76.9
[4	-16	3]	(4	1	0)	(5	2	4)	4.478	1.231	3.64	69.1	86.9
[1	-4	-12]	(4	1	0)	(8	-7	3)	4.478	1.228	3.65	66.8	49.4
[3	-12	20]	(4	1	0)	(8	7	3)	4.478	1.228	3.65	50.6	64.5
[2	-8	-11]	(4	1	0)	(2	-5	4)	4.478	1.228	3.65	87.6	68.6
[2	-8	-9]	(4	1	0)	(2	5	-4)	4.478	1.228	3.65	77.6	72.2
[1	-4	-13]	(4	1	0)	(7	-8	3)	4.478	1.226	3.65	71.8	47.1
[3	-12	-25]	(4	1	0)	(7	8	-3)	4.478	1.226	3.65	54.1	59.2
[4	-16	-17]	(4	1	0)	(5	-3	4)	4.478	1.217	3.68	74.5	73.1
[4	-16	7]	(4	1	0)	(5	3	4)	4.478	1.217	3.68	68.3	82.9
[4	-16	-23]	(4	1	0)	(3	-5	4)	4.478	1.214	3.69	83.9	67.7

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Anthophyllite (410) 482 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[4	-16	17]	(4	1	0)	(3	5	4)	4.478	1.214	3.69	74.0	73.1
[2	-8	-5]	(4	1	0)	(6	-1	4)	4.478	1.211	3.70	68.7	79.9
[2	-8	-1]	(4	1	0)	(6	1	4)	4.478	1.211	3.70	66.6	88.0
[4	-16	25]	(4	1	0)	(-1	6	4)	4.478	1.205	3.72	87.8	66.0
[4	-16	23]	(4	1	0)	(1	6	4)	4.478	1.205	3.72	80.6	67.7
[4	-16	-21]	(4	1	0)	(5	-4	4)	4.478	1.198	3.74	75.7	69.5
[4	-16	11]	(4	1	0)	(5	4	4)	4.478	1.198	3.74	67.6	78.9
[1	-4	-6]	(4	1	0)	(4	-5	4)	4.478	1.196	3.74	80.4	66.8
[1	-4	4]	(4	1	0)	(4	5	4)	4.478	1.196	3.74	70.5	74.1
[2	-8	-9]	(4	1	0)	(6	-3	4)	4.478	1.189	3.77	71.1	72.2
[2	-8	3]	(4	1	0)	(6	3	4)	4.478	1.189	3.77	65.0	83.9
[3	-12	-40]	(4	1	0)	(8	-8	3)	4.478	1.187	3.77	68.6	46.4
[1	-4	-8]	(4	1	0)	(8	8	-3)	4.478	1.187	3.77	51.0	60.3
[3	-12	-37]	(4	1	0)	(9	-7	3)	4.478	1.185	3.78	63.8	48.6
[3	-12	19]	(4	1	0)	(9	7	3)	4.478	1.185	3.78	47.6	65.7
[4	-16	-27]	(4	1	0)	(3	-6	4)	4.478	1.185	3.78	85.0	64.3
[4	-16	21]	(4	1	0)	(3	6	4)	4.478	1.185	3.78	73.4	69.5
[4	-16	-7]	(4	1	0)	(7	0	4)	4.478	1.181	3.79	64.4	82.9
[3	-12	29]	(4	1	0)	(7	9	3)	4.478	1.179	3.80	54.5	55.4
[4	-16	-11]	(4	1	0)	(7	-1	4)	4.478	1.178	3.80	65.5	78.9
[4	-16	-3]	(4	1	0)	(7	1	4)	4.478	1.178	3.80	63.4	86.9
[4	-16	-25]	(4	1	0)	(5	-5	4)	4.478	1.174	3.81	77.0	66.0
[4	-16	15]	(4	1	0)	(5	5	4)	4.478	1.174	3.81	67.1	75.0
[4	-16	-15]	(4	1	0)	(7	-2	4)	4.478	1.171	3.82	66.7	75.0
[4	-16	1]	(4	1	0)	(7	2	4)	4.478	1.171	3.82	62.5	89.0
[4	-16	29]	(4	1	0)	(-1	7	4)	4.478	1.171	3.83	86.9	62.6
[4	-16	27]	(4	1	0)	(1	7	4)	4.478	1.171	3.83	79.9	64.3
[2	-8	-15]	(4	1	0)	(2	-7	4)	4.478	1.164	3.85	89.5	61.8
[2	-8	13]	(4	1	0)	(2	7	4)	4.478	1.164	3.85	76.4	65.1
[4	-16	-19]	(4	1	0)	(7	-3	4)	4.478	1.158	3.87	67.9	71.3
[4	-16	5]	(4	1	0)	(7	3	4)	4.478	1.158	3.87	61.8	84.9
[4	-16	-31]	(4	1	0)	(3	-7	4)	4.478	1.152	3.89	86.1	61.0
[4	-16	25]	(4	1	0)	(3	7	4)	4.478	1.152	3.89	72.9	66.0
[2	-8	-13]	(4	1	0)	(6	-5	4)	4.478	1.149	3.90	73.7	65.1
[2	-8	-7]	(4	1	0)	(6	5	-4)	4.478	1.149	3.90	63.8	76.0
[3	-12	-41]	(4	1	0)	(9	-8	3)	4.478	1.148	3.90	65.7	45.7
[3	-12	23]	(4	1	0)	(9	8	3)	4.478	1.148	3.90	48.0	61.3
[4	-16	-29]	(4	1	0)	(5	-6	4)	4.478	1.148	3.90	78.2	62.6
[4	-16	19]	(4	1	0)	(5	6	4)	4.478	1.148	3.90	66.6	71.3
[3	-12	28]	(4	1	0)	(8	9	3)	4.478	1.145	3.91	51.4	56.3
[1	-4	-3]	(4	1	0)	(8	-1	4)	4.478	1.144	3.91	62.4	77.9
[1	-4	-1]	(4	1	0)	(8	1	4)	4.478	1.144	3.91	60.3	85.9
[4	-16	-23]	(4	1	0)	(7	-4	4)	4.478	1.142	3.92	69.2	67.7
[4	-16	9]	(4	1	0)	(7	4	4)	4.478	1.142	3.92	61.2	80.9
[1	-4	8]	(4	1	0)	(4	-7	-4)	4.478	1.137	3.94	82.7	60.3
[1	-4	6]	(4	1	0)	(4	7	4)	4.478	1.137	3.94	69.6	66.8
[4	-16	33]	(4	1	0)	(-1	8	4)	4.478	1.135	3.95	86.1	59.5
[4	-16	31]	(4	1	0)	(1	8	4)	4.478	1.135	3.95	79.3	61.0

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Anthophyllite (410) 482 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[1	-4	-5]	(4	1	0)	(8	-3	4)	4.478	1.126	3.98	64.9	70.4
[1	-4	1]	(4	1	0)	(8	3	4)	4.478	1.126	3.98	58.8	85.9
[4	-16	27]	(4	1	0)	(7	-5	-4)	4.478	1.121	3.99	70.6	64.3
[4	-16	-13]	(4	1	0)	(-7	-5	4)	4.478	1.121	3.99	60.7	76.9
[4	-16	-33]	(4	1	0)	(5	-7	4)	4.478	1.118	4.00	79.4	59.5
[4	-16	23]	(4	1	0)	(5	7	4)	4.478	1.118	4.00	66.3	67.7
[4	-16	-35]	(4	1	0)	(3	-8	4)	4.478	1.118	4.01	87.1	58.0
[4	-16	29]	(4	1	0)	(3	8	4)	4.478	1.118	4.01	72.5	62.6
[4	-16	-9]	(4	1	0)	(9	0	4)	4.478	1.111	4.03	58.5	80.9
[4	-16	-5]	(4	1	0)	(9	1	4)	4.478	1.109	4.04	57.5	84.9
[4	-16	-17]	(4	1	0)	(9	-2	4)	4.478	1.102	4.06	60.8	73.1
[4	-16	-1]	(4	1	0)	(9	2	4)	4.478	1.102	4.06	56.6	89.0
[4	-16	-31]	(4	1	0)	(7	-6	4)	4.478	1.098	4.08	71.9	61.0
[4	-16	17]	(4	1	0)	(7	6	4)	4.478	1.098	4.08	60.4	73.1
[4	-16	37]	(4	1	0)	(-1	9	4)	4.478	1.098	4.08	85.4	56.6
[4	-16	35]	(4	1	0)	(1	9	4)	4.478	1.098	4.08	78.7	58.0
[2	-8	17]	(4	1	0)	(6	-7	-4)	4.478	1.096	4.08	76.3	58.7
[2	-8	-11]	(4	1	0)	(6	7	-4)	4.478	1.096	4.08	63.2	68.6
[2	-8	19]	(4	1	0)	(-2	9	4)	4.478	1.092	4.10	88.7	55.9
[2	-8	17]	(4	1	0)	(2	9	4)	4.478	1.092	4.10	75.4	58.7
[4	-16	-21]	(4	1	0)	(9	-3	4)	4.478	1.092	4.10	62.1	69.5
[4	-16	3]	(4	1	0)	(9	3	4)	4.478	1.092	4.10	55.9	86.9
[1	-4	-7]	(4	1	0)	(8	-5	4)	4.478	1.092	4.10	67.6	63.4
[1	-4	-3]	(4	1	0)	(8	5	-4)	4.478	1.092	4.10	57.8	77.9
[4	-16	-37]	(4	1	0)	(5	-8	4)	4.478	1.087	4.12	80.6	56.6
[4	-16	27]	(4	1	0)	(5	8	4)	4.478	1.087	4.12	66.1	64.3
[4	-16	-39]	(4	1	0)	(3	-9	4)	4.478	1.083	4.14	88.1	55.2
[4	-16	33]	(4	1	0)	(3	9	4)	4.478	1.083	4.14	72.2	59.5
[4	-16	-25]	(4	1	0)	(9	-4	4)	4.478	1.078	4.15	63.4	66.0
[4	-16	7]	(4	1	0)	(9	4	4)	4.478	1.078	4.15	55.4	82.9
[4	-16	-35]	(4	1	0)	(7	-7	4)	4.478	1.072	4.18	73.3	58.0
[4	-16	21]	(4	1	0)	(7	7	4)	4.478	1.072	4.18	60.2	69.5
[1	-4	10]	(4	1	0)	(-4	9	4)	4.478	1.070	4.19	84.9	54.5
[1	-4	8]	(4	1	0)	(4	9	4)	4.478	1.070	4.19	69.0	60.3
[4	-16	-29]	(4	1	0)	(9	-5	4)	4.478	1.061	4.22	64.8	62.6
[4	-16	11]	(4	1	0)	(9	5	4)	4.478	1.061	4.22	55.0	78.9
[5	-20	-1]	(4	1	0)	(1	0	5)	4.478	1.054	4.25	86.8	89.2
[4	-16	-41]	(4	1	0)	(5	-9	4)	4.478	1.054	4.25	81.8	53.8
[4	-16	31]	(4	1	0)	(5	9	4)	4.478	1.054	4.25	65.9	61.0
[5	-20	4]	(4	1	0)	(0	1	5)	4.478	1.054	4.25	89.2	86.7
[1	-4	-1]	(4	1	0)	(1	-1	5)	4.478	1.052	4.25	87.7	85.9
[5	-20	3]	(4	1	0)	(1	1	5)	4.478	1.052	4.25	86.0	87.5
[5	-20	-2]	(4	1	0)	(2	0	5)	4.478	1.049	4.27	83.7	88.4
[5	-20	-6]	(4	1	0)	(2	-1	5)	4.478	1.047	4.28	84.5	85.1
[5	-20	2]	(4	1	0)	(2	1	5)	4.478	1.047	4.28	82.9	88.4
[5	-20	-9]	(4	1	0)	(1	-2	5)	4.478	1.047	4.28	88.5	82.7
[5	-20	7]	(4	1	0)	(1	2	5)	4.478	1.047	4.28	85.2	84.3
[1	-4	-9]	(4	1	0)	(8	-7	4)	4.478	1.046	4.28	70.4	57.3

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Anthophyllite (410) 482 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[1	-4	5]	(4	1	0)	(8	7	4)	4.478	1.046	4.28	57.3	70.4
[4	-16	-39]	(4	1	0)	(7	-8	4)	4.478	1.044	4.29	74.6	55.2
[4	-16	-25]	(4	1	0)	(7	8	-4)	4.478	1.044	4.29	60.0	66.0
[1	-4	2]	(4	1	0)	(-2	2	5)	4.478	1.042	4.30	85.4	81.9
[5	-20	6]	(4	1	0)	(2	2	5)	4.478	1.042	4.30	82.1	85.1
[4	-16	-33]	(4	1	0)	(9	-6	4)	4.478	1.041	4.30	66.2	59.5
[4	-16	15]	(4	1	0)	(9	6	4)	4.478	1.041	4.30	54.7	75.0
[5	-20	-3]	(4	1	0)	(3	0	5)	4.478	1.041	4.30	80.6	87.5
[5	-20	12]	(4	1	0)	(0	3	5)	4.478	1.040	4.31	87.5	80.3
[5	-20	-7]	(4	1	0)	(3	-1	5)	4.478	1.039	4.31	81.5	84.3
[5	-20	1]	(4	1	0)	(3	1	5)	4.478	1.039	4.31	79.8	89.2
[5	-20	-13]	(4	1	0)	(1	-3	5)	4.478	1.038	4.31	89.4	79.5
[5	-20	11]	(4	1	0)	(1	3	5)	4.478	1.038	4.31	84.4	81.1
[2	-8	-21]	(4	1	0)	(6	-9	4)	4.478	1.036	4.32	78.8	53.1
[2	-8	15]	(4	1	0)	(6	9	4)	4.478	1.036	4.32	62.9	61.8
[5	-20	-11]	(4	1	0)	(3	-2	5)	4.478	1.034	4.33	82.3	81.1
[1	-4	1]	(4	1	0)	(3	2	5)	4.478	1.034	4.33	79.0	85.9
[5	-20	-14]	(4	1	0)	(2	-3	5)	4.478	1.033	4.33	86.3	78.7
[1	-4	2]	(4	1	0)	(2	3	5)	4.478	1.033	4.33	81.3	81.9
[5	-20	-4]	(4	1	0)	(4	0	5)	4.478	1.030	4.35	77.6	86.7
[5	-20	-8]	(4	1	0)	(4	-1	5)	4.478	1.028	4.36	78.4	83.5
[1	-4	0]	(4	1	0)	(4	1	5)	4.478	1.028	4.36	76.7	90.0
[5	-20	17]	(4	1	0)	(-1	4	5)	4.478	1.026	4.36	89.8	76.4
[1	-4	3]	(4	1	0)	(1	4	5)	4.478	1.026	4.36	83.6	77.9
[1	-4	-3]	(4	1	0)	(3	-3	5)	4.478	1.025	4.37	83.2	77.9
[5	-20	9]	(4	1	0)	(3	3	5)	4.478	1.025	4.37	78.2	82.7
[5	-20	-12]	(4	1	0)	(4	-2	5)	4.478	1.023	4.38	79.3	80.3
[5	-20	4]	(4	1	0)	(4	2	5)	4.478	1.023	4.38	76.0	86.7
[5	-20	-18]	(4	1	0)	(2	-4	5)	4.478	1.021	4.38	87.1	75.6
[5	-20	14]	(4	1	0)	(2	4	5)	4.478	1.021	4.38	80.6	78.7
[4	-16	-37]	(4	1	0)	(9	-7	4)	4.478	1.019	4.40	67.7	56.6
[4	-16	19]	(4	1	0)	(9	7	4)	4.478	1.019	4.40	54.6	71.3
[4	-16	-43]	(4	1	0)	(7	-9	4)	4.478	1.015	4.41	75.9	52.5
[4	-16	29]	(4	1	0)	(7	9	4)	4.478	1.015	4.41	60.0	62.6
[5	-20	-16]	(4	1	0)	(4	-3	5)	4.478	1.015	4.41	80.2	77.1
[5	-20	8]	(4	1	0)	(4	3	5)	4.478	1.015	4.41	75.2	83.5
[5	-20	-9]	(4	1	0)	(5	-1	5)	4.478	1.014	4.42	75.5	82.7
[5	-20	-1]	(4	1	0)	(5	1	5)	4.478	1.014	4.42	73.8	89.2
[5	-20	-19]	(4	1	0)	(3	-4	5)	4.478	1.014	4.42	84.1	74.8
[5	-20	13]	(4	1	0)	(3	4	5)	4.478	1.014	4.42	77.5	79.5
[5	-20	21]	(4	1	0)	(-1	5	5)	4.478	1.011	4.43	89.0	73.3
[5	-20	19]	(4	1	0)	(1	5	5)	4.478	1.011	4.43	82.9	74.8
[5	-20	-13]	(4	1	0)	(5	-2	5)	4.478	1.009	4.44	76.4	79.5
[5	-20	3]	(4	1	0)	(5	2	5)	4.478	1.009	4.44	73.0	87.5
[5	-20	-22]	(4	1	0)	(2	-5	5)	4.478	1.007	4.45	88.0	72.6
[5	-20	18]	(4	1	0)	(2	5	5)	4.478	1.007	4.45	79.9	75.6
[1	-4	-4]	(4	1	0)	(4	-4	5)	4.478	1.003	4.46	81.1	74.1
[5	-20	12]	(4	1	0)	(4	4	5)	4.478	1.003	4.46	74.6	80.3

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[5	-20	-17]	(4	1	0)	(5	-3	5)	4.478	1.001	4.47	77.3	76.4
[5	-20	7]	(4	1	0)	(5	3	5)	4.478	1.001	4.47	72.3	84.3

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Anthophyllite (240) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[2	-1	-2]	(2	4	0)	(1	0	1)	4.028	5.077	0.79	83.1	75.6
[2	-1	1]	(2	4	0)	(0	1	1)	4.028	5.064	0.80	75.2	82.7
[2	-1	3]	(2	4	0)	(-1	1	1)	4.028	4.885	0.82	82.5	68.9
[2	-1	-1]	(2	4	0)	(1	1	1)	4.028	4.885	0.82	68.9	82.7
[2	-1	-4]	(2	4	0)	(2	0	1)	4.028	4.586	0.88	77.5	62.8
[2	-1	5]	(2	4	0)	(-2	1	1)	4.028	4.442	0.91	89.2	57.3
[2	-1	-3]	(2	4	0)	(2	1	1)	4.028	4.442	0.91	64.4	68.9
[2	-1	4]	(2	4	0)	(-1	2	1)	4.028	4.416	0.91	70.1	62.8
[2	-1	0]	(2	4	0)	(1	2	-1)	4.028	4.416	0.91	56.8	90.0
[2	-1	6]	(2	4	0)	(-2	2	1)	4.028	4.081	0.99	77.4	52.4
[2	-1	-2]	(2	4	0)	(2	2	1)	4.028	4.081	0.99	52.9	75.6
[2	-1	-6]	(2	4	0)	(3	0	1)	4.028	4.011	1.00	73.5	52.4
[2	-1	3]	(2	4	0)	(0	3	1)	4.028	3.954	1.02	53.4	68.9
[2	-1	-7]	(2	4	0)	(3	-1	1)	4.028	3.914	1.03	85.4	48.0
[2	-1	-5]	(2	4	0)	(3	1	1)	4.028	3.914	1.03	61.8	57.3
[2	-1	5]	(2	4	0)	(-1	3	1)	4.028	3.867	1.04	60.5	57.3
[2	-1	1]	(2	4	0)	(1	3	1)	4.028	3.867	1.04	47.6	82.7
[2	-1	-4]	(2	4	0)	(3	2	1)	4.028	3.660	1.10	51.2	62.8
[2	-1	7]	(2	4	0)	(-2	3	1)	4.028	3.636	1.11	67.8	48.0
[2	-1	-1]	(2	4	0)	(2	3	1)	4.028	3.636	1.11	44.0	82.7
[2	-1	-7]	(2	4	0)	(4	1	1)	4.028	3.415	1.18	60.4	48.0
[2	-1	6]	(2	4	0)	(-1	4	1)	4.028	3.357	1.20	53.4	52.4
[2	-1	2]	(2	4	0)	(1	4	1)	4.028	3.357	1.20	41.0	75.6
[2	-1	-3]	(2	4	0)	(3	3	1)	4.028	3.329	1.21	42.5	68.9
[2	-1	6]	(2	4	0)	(4	2	-1)	4.028	3.243	1.24	50.8	52.4
[2	-1	0]	(2	4	0)	(2	4	-1)	4.028	3.203	1.26	37.3	90.0
[2	-1	-5]	(2	4	0)	(4	3	1)	4.028	3.005	1.34	42.6	57.3
[2	-1	-2]	(2	4	0)	(3	4	1)	4.028	2.987	1.35	35.7	75.6
[2	-1	5]	(2	4	0)	(0	5	1)	4.028	2.963	1.36	41.8	57.3
[2	-1	7]	(2	4	0)	(-1	5	1)	4.028	2.926	1.38	48.2	48.0
[2	-1	3]	(2	4	0)	(1	5	1)	4.028	2.926	1.38	36.4	68.9
[2	-1	1]	(2	4	0)	(2	5	1)	4.028	2.822	1.43	32.6	82.7
[2	-1	-4]	(2	4	0)	(4	4	1)	4.028	2.747	1.47	35.8	62.8
[2	-1	-7]	(2	4	0)	(5	3	1)	4.028	2.702	1.49	43.5	48.0
[2	-1	-1]	(2	4	0)	(3	5	1)	4.028	2.671	1.51	30.7	82.7
[2	-1	0]	(2	4	0)	(0	0	2)	4.028	2.640	1.53	90.0	90.0
[2	-1	1]	(2	4	0)	(1	0	-2)	4.028	2.614	1.54	86.5	82.7
[4	-2	3]	(2	4	0)	(-1	1	2)	4.028	2.586	1.56	86.0	79.1
[4	-2	-1]	(2	4	0)	(1	1	2)	4.028	2.586	1.56	79.0	86.3
[2	-1	4]	(2	4	0)	(1	6	1)	4.028	2.572	1.57	33.2	62.8
[4	-2	5]	(2	4	0)	(-2	1	2)	4.028	2.513	1.60	89.5	72.2
[4	-2	-3]	(2	4	0)	(2	1	2)	4.028	2.513	1.60	75.8	79.1
[2	-1	-6]	(2	4	0)	(5	4	1)	4.028	2.509	1.61	36.9	52.4
[2	-1	2]	(2	4	0)	(-1	2	2)	4.028	2.509	1.61	78.9	75.6
[2	-1	0]	(2	4	0)	(1	2	2)	4.028	2.509	1.61	71.9	90.0
[2	-1	2]	(2	4	0)	(2	6	1)	4.028	2.501	1.61	29.3	75.6
[2	-1	-3]	(2	4	0)	(4	5	1)	4.028	2.495	1.61	30.4	68.9
[2	-1	-3]	(2	4	0)	(3	0	2)	4.028	2.427	1.66	80.1	68.9

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Anthophyllite (240) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[4	-2	-7]	(2	4	0)	(3	-1	2)	4.028	2.405	1.68	87.2	65.8
[4	-2	-5]	(2	4	0)	(3	1	2)	4.028	2.405	1.68	73.1	72.2
[4	-2	5]	(2	4	0)	(-1	3	2)	4.028	2.394	1.68	72.3	72.2
[4	-2	1]	(2	4	0)	(1	3	2)	4.028	2.394	1.68	65.3	86.3
[2	-1	0]	(2	4	0)	(3	6	-1)	4.028	2.394	1.68	27.0	90.0
[2	-1	4]	(2	4	0)	(-3	2	2)	4.028	2.342	1.72	86.0	62.8
[2	-1	-2]	(2	4	0)	(3	2	2)	4.028	2.342	1.72	66.4	75.6
[4	-2	7]	(2	4	0)	(-2	3	2)	4.028	2.336	1.72	76.0	65.8
[4	-2	-1]	(2	4	0)	(2	3	2)	4.028	2.336	1.72	62.5	86.3
[2	-1	-5]	(2	4	0)	(5	5	1)	4.028	2.313	1.74	31.4	57.3
[2	-1	7]	(2	4	0)	(0	7	1)	4.028	2.301	1.75	35.9	48.0
[2	-1	-5]	(2	4	0)	(1	7	-1)	4.028	2.284	1.76	30.9	57.3
[4	-2	-9]	(2	4	0)	(4	-1	2)	4.028	2.274	1.77	84.3	60.0
[4	-2	-7]	(2	4	0)	(4	1	2)	4.028	2.274	1.77	70.8	65.8
[2	-1	2]	(2	4	0)	(0	4	2)	4.028	2.274	1.77	62.8	75.6
[2	-1	-2]	(2	4	0)	(4	6	1)	4.028	2.265	1.78	26.3	75.6
[2	-1	3]	(2	4	0)	(-1	4	2)	4.028	2.257	1.78	66.4	68.9
[2	-1	1]	(2	4	0)	(1	4	2)	4.028	2.257	1.78	59.5	82.7
[4	-2	9]	(2	4	0)	(-3	3	2)	4.028	2.248	1.79	79.6	60.0
[4	-2	-3]	(2	4	0)	(3	3	2)	4.028	2.248	1.79	60.1	79.1
[2	-1	3]	(2	4	0)	(2	7	1)	4.028	2.233	1.80	27.0	68.9
[2	-1	5]	(2	4	0)	(5	0	-2)	4.028	2.149	1.87	75.3	57.3
[4	-2	11]	(2	4	0)	(-4	3	2)	4.028	2.140	1.88	83.0	54.8
[4	-2	-5]	(2	4	0)	(4	3	2)	4.028	2.140	1.88	58.4	72.2
[2	-1	-7]	(2	4	0)	(6	5	1)	4.028	2.136	1.89	33.0	48.0
[4	-2	-11]	(2	4	0)	(5	-1	2)	4.028	2.134	1.89	81.7	54.8
[4	-2	-9]	(2	4	0)	(5	1	2)	4.028	2.134	1.89	69.0	60.0
[2	-1	5]	(2	4	0)	(-3	4	2)	4.028	2.133	1.89	73.8	57.3
[2	-1	-1]	(2	4	0)	(3	4	2)	4.028	2.133	1.89	54.6	82.7
[2	-1	-4]	(2	4	0)	(5	6	1)	4.028	2.126	1.89	26.9	62.8
[4	-2	7]	(2	4	0)	(-1	5	2)	4.028	2.111	1.91	61.2	65.8
[4	-2	3]	(2	4	0)	(1	5	2)	4.028	2.111	1.91	54.5	79.1
[2	-1	-6]	(2	4	0)	(5	-2	2)	4.028	2.090	1.93	87.9	52.4
[2	-1	4]	(2	4	0)	(5	2	-2)	4.028	2.090	1.93	62.9	62.8
[4	-2	-9]	(2	4	0)	(2	-5	2)	4.028	2.071	1.95	65.0	60.0
[4	-2	1]	(2	4	0)	(2	5	2)	4.028	2.071	1.95	51.8	86.3
[2	-1	-1]	(2	4	0)	(4	7	1)	4.028	2.060	1.96	23.2	82.7
[2	-1	6]	(2	4	0)	(1	8	1)	4.028	2.047	1.97	29.3	52.4
[4	-2	13]	(2	4	0)	(-5	3	2)	4.028	2.022	1.99	86.2	50.1
[4	-2	-7]	(2	4	0)	(5	3	2)	4.028	2.022	1.99	57.1	65.8
[2	-1	4]	(2	4	0)	(2	8	1)	4.028	2.011	2.00	25.4	62.8
[4	-2	11]	(2	4	0)	(-3	5	2)	4.028	2.009	2.01	68.7	54.8
[4	-2	-1]	(2	4	0)	(3	5	2)	4.028	2.009	2.01	49.7	86.3
[4	-2	-13]	(2	4	0)	(6	-1	2)	4.028	1.993	2.02	79.6	50.1
[4	-2	-11]	(2	4	0)	(6	1	2)	4.028	1.993	2.02	67.6	54.8
[2	-1	-6]	(2	4	0)	(6	6	1)	4.028	1.986	2.03	28.4	52.4
[2	-1	4]	(2	4	0)	(-1	6	2)	4.028	1.966	2.05	56.8	62.8
[2	-1	2]	(2	4	0)	(1	6	2)	4.028	1.966	2.05	50.2	75.6

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Anthophyllite (240) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[2	-1	7]	(2	4	0)	(-5	4	2)	4.028	1.937	2.08	80.7	48.0
[2	-1	-3]	(2	4	0)	(5	4	2)	4.028	1.937	2.08	51.9	68.9
[4	-2	13]	(2	4	0)	(-4	5	2)	4.028	1.931	2.09	72.3	50.1
[4	-2	-3]	(2	4	0)	(4	5	2)	4.028	1.931	2.09	48.1	79.1
[4	-2	15]	(2	4	0)	(-6	3	2)	4.028	1.901	2.12	89.0	46.1
[4	-2	9]	(2	4	0)	(6	3	-2)	4.028	1.901	2.12	56.3	60.0
[2	-1	-6]	(2	4	0)	(-3	6	-2)	4.028	1.883	2.14	64.2	52.4
[2	-1	0]	(2	4	0)	(3	6	2)	4.028	1.883	2.14	45.5	90.0
[2	-1	0]	(2	4	0)	(4	8	-1)	4.028	1.882	2.14	20.9	90.0
[2	-1	-7]	(2	4	0)	(7	0	2)	4.028	1.868	2.16	72.1	48.0
[4	-2	-15]	(2	4	0)	(7	-1	2)	4.028	1.858	2.17	77.7	46.1
[4	-2	-13]	(2	4	0)	(7	1	2)	4.028	1.858	2.17	66.5	50.1
[2	-1	7]	(2	4	0)	(1	9	1)	4.028	1.852	2.18	28.1	48.0
[2	-1	-5]	(2	4	0)	(6	7	1)	4.028	1.844	2.18	24.5	57.3
[4	-2	15]	(2	4	0)	(-5	5	2)	4.028	1.843	2.19	75.7	46.1
[4	-2	-5]	(2	4	0)	(5	5	2)	4.028	1.843	2.19	47.1	72.2
[2	-1	-6]	(2	4	0)	(7	2	2)	4.028	1.828	2.20	61.0	52.4
[4	-2	9]	(2	4	0)	(-1	7	2)	4.028	1.828	2.20	53.1	60.0
[4	-2	5]	(2	4	0)	(1	7	2)	4.028	1.828	2.20	46.6	72.2
[2	-1	5]	(2	4	0)	(2	9	1)	4.028	1.825	2.21	24.3	57.3
[4	-2	11]	(2	4	0)	(-2	7	2)	4.028	1.802	2.24	56.7	54.8
[4	-2	3]	(2	4	0)	(2	7	2)	4.028	1.802	2.24	44.0	79.1
[2	-1	-2]	(2	4	0)	(5	8	1)	4.028	1.800	2.24	20.6	75.6
[4	-2	-11]	(2	4	0)	(7	3	2)	4.028	1.782	2.26	55.8	54.8
[2	-1	3]	(2	4	0)	(3	9	1)	4.028	1.782	2.26	21.2	68.9
[4	-2	13]	(2	4	0)	(-3	7	2)	4.028	1.760	2.29	60.3	50.1
[4	-2	1]	(2	4	0)	(3	7	2)	4.028	1.760	2.29	41.9	86.3
[6	-3	-2]	(2	4	0)	(1	0	3)	4.028	1.752	2.30	87.6	85.1
[6	-3	1]	(2	4	0)	(0	1	3)	4.028	1.752	2.30	84.9	87.5
[4	-2	-7]	(2	4	0)	(6	5	2)	4.028	1.750	2.30	46.6	65.8
[2	-1	1]	(2	4	0)	(-1	1	3)	4.028	1.744	2.31	87.3	82.7
[6	-3	-1]	(2	4	0)	(1	1	3)	4.028	1.744	2.31	82.6	87.5
[2	-1	-2]	(2	4	0)	(5	6	2)	4.028	1.744	2.31	43.0	75.6
[2	-1	-7]	(2	4	0)	(7	7	1)	4.028	1.736	2.32	26.2	48.0
[4	-2	15]	(2	4	0)	(8	1	-2)	4.028	1.731	2.33	65.6	46.1
[6	-3	-4]	(2	4	0)	(2	0	3)	4.028	1.729	2.33	85.3	80.3
[2	-1	1]	(2	4	0)	(4	9	1)	4.028	1.727	2.33	19.3	82.7
[2	-1	5]	(2	4	0)	(7	4	-2)	4.028	1.724	2.34	50.9	57.3
[6	-3	5]	(2	4	0)	(-2	1	3)	4.028	1.721	2.34	89.7	77.9
[2	-1	1]	(2	4	0)	(2	1	-3)	4.028	1.721	2.34	80.4	82.7
[6	-3	-4]	(2	4	0)	(1	-2	3)	4.028	1.719	2.34	82.4	80.3
[2	-1	0]	(2	4	0)	(1	2	3)	4.028	1.719	2.34	77.7	90.0
[2	-1	-4]	(2	4	0)	(6	8	1)	4.028	1.713	2.35	21.4	62.8
[4	-2	15]	(2	4	0)	(-4	7	2)	4.028	1.707	2.36	63.9	46.1
[4	-2	-1]	(2	4	0)	(4	7	2)	4.028	1.707	2.36	40.4	86.3
[2	-1	4]	(2	4	0)	(0	8	2)	4.028	1.707	2.36	46.6	62.8
[2	-1	5]	(2	4	0)	(-1	8	2)	4.028	1.700	2.37	49.9	57.3
[2	-1	3]	(2	4	0)	(1	8	2)	4.028	1.700	2.37	43.6	68.9

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Anthophyllite (240) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[2	-1	2]	(2	4	0)	(-2	2	3)	4.028	1.698	2.37	84.8	75.6
[6	-3	-2]	(2	4	0)	(2	2	3)	4.028	1.698	2.37	75.5	85.1
[6	-3	7]	(2	4	0)	(3	-1	-3)	4.028	1.685	2.39	88.0	73.3
[6	-3	-5]	(2	4	0)	(3	1	3)	4.028	1.685	2.39	78.2	77.9
[6	-3	5]	(2	4	0)	(-1	3	3)	4.028	1.681	2.40	77.6	77.9
[6	-3	1]	(2	4	0)	(1	3	3)	4.028	1.681	2.40	73.0	87.5
[4	-2	-13]	(2	4	0)	(8	3	2)	4.028	1.670	2.41	55.5	50.1
[2	-1	-1]	(2	4	0)	(5	9	1)	4.028	1.663	2.42	18.5	82.7
[6	-3	7]	(2	4	0)	(-2	3	3)	4.028	1.661	2.43	80.1	73.3
[6	-3	-1]	(2	4	0)	(2	3	3)	4.028	1.661	2.43	70.8	87.5
[4	-2	9]	(2	4	0)	(7	5	-2)	4.028	1.656	2.43	46.4	60.0
[4	-2	-3]	(2	4	0)	(5	7	2)	4.028	1.645	2.45	39.4	79.1
[2	-1	7]	(2	4	0)	(-3	8	2)	4.028	1.645	2.45	56.9	48.0
[2	-1	1]	(2	4	0)	(3	8	2)	4.028	1.645	2.45	38.9	82.7
[6	-3	-8]	(2	4	0)	(4	0	3)	4.028	1.645	2.45	81.1	71.1
[2	-1	-3]	(2	4	0)	(4	-1	3)	4.028	1.638	2.46	85.9	68.9
[6	-3	-7]	(2	4	0)	(4	1	3)	4.028	1.638	2.46	76.3	73.3
[2	-1	2]	(2	4	0)	(-1	4	3)	4.028	1.631	2.47	73.2	75.6
[6	-3	2]	(2	4	0)	(1	4	3)	4.028	1.631	2.47	68.5	85.1
[2	-1	-6]	(2	4	0)	(7	8	1)	4.028	1.625	2.48	22.9	52.4
[2	-1	-2]	(2	4	0)	(4	2	3)	4.028	1.618	2.49	71.6	75.6
[6	-3	8]	(2	4	0)	(-2	4	3)	4.028	1.613	2.50	75.6	71.1
[2	-1	0]	(2	4	0)	(2	4	3)	4.028	1.613	2.50	66.4	90.0
[6	-3	10]	(2	4	0)	(5	0	-3)	4.028	1.589	2.53	79.2	66.8
[6	-3	11]	(2	4	0)	(-4	3	3)	4.028	1.586	2.54	84.8	64.8
[6	-3	5]	(2	4	0)	(4	3	-3)	4.028	1.586	2.54	67.1	77.9
[6	-3	-11]	(2	4	0)	(5	-1	3)	4.028	1.583	2.54	83.9	64.8
[2	-1	-3]	(2	4	0)	(5	1	3)	4.028	1.583	2.54	74.6	68.9
[2	-1	4]	(2	4	0)	(7	6	-2)	4.028	1.583	2.54	42.4	62.8
[6	-3	10]	(2	4	0)	(-3	4	3)	4.028	1.583	2.54	78.1	66.8
[6	-3	-2]	(2	4	0)	(3	4	3)	4.028	1.583	2.54	64.5	85.1
[4	-2	11]	(2	4	0)	(-1	9	2)	4.028	1.583	2.55	47.2	54.8
[4	-2	7]	(2	4	0)	(1	9	2)	4.028	1.583	2.55	41.1	65.8
[6	-3	5]	(2	4	0)	(0	5	3)	4.028	1.579	2.55	66.6	77.9
[4	-2	-5]	(2	4	0)	(6	7	2)	4.028	1.578	2.55	38.9	72.2
[6	-3	7]	(2	4	0)	(-1	5	3)	4.028	1.574	2.56	69.0	73.3
[2	-1	1]	(2	4	0)	(1	5	3)	4.028	1.574	2.56	64.4	82.7
[4	-2	13]	(2	4	0)	(-2	9	2)	4.028	1.566	2.57	50.6	50.1
[4	-2	5]	(2	4	0)	(2	9	2)	4.028	1.566	2.57	38.5	72.2
[4	-2	15]	(2	4	0)	(9	3	-2)	4.028	1.565	2.57	55.4	46.1
[2	-1	-4]	(2	4	0)	(5	-2	3)	4.028	1.565	2.57	88.5	62.8
[6	-3	-8]	(2	4	0)	(5	2	3)	4.028	1.565	2.57	70.0	71.1
[4	-2	-11]	(2	4	0)	(8	5	2)	4.028	1.565	2.57	46.5	54.8
[2	-1	3]	(2	4	0)	(-2	5	3)	4.028	1.557	2.59	71.4	68.9
[6	-3	1]	(2	4	0)	(2	5	3)	4.028	1.557	2.59	62.3	87.5
[2	-1	-1]	(2	4	0)	(5	8	2)	4.028	1.550	2.60	36.3	82.7
[2	-1	4]	(2	4	0)	(-4	4	3)	4.028	1.544	2.61	80.5	62.8
[6	-3	-4]	(2	4	0)	(4	4	3)	4.028	1.544	2.61	62.9	80.3

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Anthophyllite (240) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[4	-2	15]	(2	4	0)	(-3	9	2)	4.028	1.538	2.62	54.0	46.1
[4	-2	3]	(2	4	0)	(3	9	2)	4.028	1.538	2.62	36.4	79.1
[6	-3	13]	(2	4	0)	(-5	3	3)	4.028	1.536	2.62	87.1	60.9
[6	-3	-7]	(2	4	0)	(5	3	3)	4.028	1.536	2.62	65.6	73.3
[6	-3	11]	(2	4	0)	(-3	5	3)	4.028	1.530	2.63	73.9	64.8
[6	-3	-1]	(2	4	0)	(3	5	3)	4.028	1.530	2.63	60.5	87.5
[2	-1	-7]	(2	4	0)	(9	4	2)	4.028	1.525	2.64	51.0	48.0
[6	-3	-13]	(2	4	0)	(6	-1	3)	4.028	1.523	2.65	82.0	60.9
[6	-3	-11]	(2	4	0)	(6	1	3)	4.028	1.523	2.65	73.0	64.8
[2	-1	-5]	(2	4	0)	(7	9	1)	4.028	1.522	2.65	20.0	57.3
[6	-3	8]	(2	4	0)	(-1	6	3)	4.028	1.511	2.67	65.1	71.1
[6	-3	4]	(2	4	0)	(1	6	3)	4.028	1.511	2.67	60.6	80.3
[4	-2	-7]	(2	4	0)	(7	7	2)	4.028	1.508	2.67	38.8	65.8
[6	-3	-14]	(2	4	0)	(6	-2	3)	4.028	1.507	2.67	86.5	59.1
[6	-3	-10]	(2	4	0)	(6	2	3)	4.028	1.507	2.67	68.6	66.8
[4	-2	1]	(2	4	0)	(4	9	2)	4.028	1.502	2.68	34.8	86.3
[6	-3	14]	(2	4	0)	(-5	4	3)	4.028	1.498	2.69	82.8	59.1
[2	-1	-2]	(2	4	0)	(5	4	3)	4.028	1.498	2.69	61.5	75.6
[6	-3	10]	(2	4	0)	(-2	6	3)	4.028	1.496	2.69	67.6	66.8
[6	-3	2]	(2	4	0)	(2	6	3)	4.028	1.496	2.69	58.5	85.1
[6	-3	13]	(2	4	0)	(-4	5	3)	4.028	1.495	2.70	76.4	60.9
[2	-1	-1]	(2	4	0)	(4	5	3)	4.028	1.495	2.70	58.9	82.7
[4	-2	-13]	(2	4	0)	(9	5	2)	4.028	1.477	2.73	46.8	50.1
[6	-3	14]	(2	4	0)	(-7	0	3)	4.028	1.465	2.75	76.0	59.1
[2	-1	-5]	(2	4	0)	(7	-1	3)	4.028	1.460	2.76	80.4	57.3
[6	-3	13]	(2	4	0)	(7	1	-3)	4.028	1.460	2.76	71.7	60.9
[4	-2	1]	(2	4	0)	(-5	-9	2)	4.028	1.460	2.76	33.6	86.3
[2	-1	5]	(2	4	0)	(-5	5	3)	4.028	1.453	2.77	78.8	57.3
[6	-3	-5]	(2	4	0)	(5	5	3)	4.028	1.453	2.77	57.6	77.9
[2	-1	-7]	(2	4	0)	(8	9	1)	4.028	1.450	2.78	21.7	48.0
[6	-3	7]	(2	4	0)	(0	7	3)	4.028	1.450	2.78	59.3	73.3
[6	-3	16]	(2	4	0)	(-6	4	3)	4.028	1.446	2.78	85.0	55.6
[6	-3	-8]	(2	4	0)	(6	4	3)	4.028	1.446	2.78	60.3	71.1
[6	-3	-16]	(2	4	0)	(7	-2	3)	4.028	1.446	2.79	84.7	55.6
[2	-1	-4]	(2	4	0)	(7	2	3)	4.028	1.446	2.79	67.4	62.8
[2	-1	3]	(2	4	0)	(-1	7	3)	4.028	1.445	2.79	61.7	68.9
[6	-3	5]	(2	4	0)	(1	7	3)	4.028	1.445	2.79	57.1	77.9
[6	-3	14]	(2	4	0)	(-4	6	3)	4.028	1.440	2.80	72.6	59.1
[6	-3	-2]	(2	4	0)	(4	6	3)	4.028	1.440	2.80	55.2	85.1
[4	-2	-9]	(2	4	0)	(8	7	2)	4.028	1.438	2.80	39.0	60.0
[2	-1	-3]	(2	4	0)	(7	8	2)	4.028	1.434	2.81	35.6	68.9
[6	-3	11]	(2	4	0)	(-2	7	3)	4.028	1.432	2.81	64.1	64.8
[2	-1	1]	(2	4	0)	(2	7	3)	4.028	1.432	2.81	55.1	82.7
[2	-1	-6]	(2	4	0)	(9	6	2)	4.028	1.425	2.83	43.0	52.4
[6	-3	-17]	(2	4	0)	(7	-3	3)	4.028	1.423	2.83	88.9	53.9
[6	-3	-11]	(2	4	0)	(7	3	3)	4.028	1.423	2.83	63.3	64.8
[4	-2	3]	(2	4	0)	(6	9	-2)	4.028	1.412	2.85	33.0	79.1
[6	-3	-13]	(2	4	0)	(3	-7	3)	4.028	1.411	2.85	66.6	60.9

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Anthophyllite (240) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[6	-3	1]	(2	4	0)	(3	7	3)	4.028	1.411	2.85	53.4	87.5
[6	-3	17]	(2	4	0)	(-6	5	3)	4.028	1.406	2.87	81.1	53.9
[6	-3	-7]	(2	4	0)	(6	5	3)	4.028	1.406	2.87	56.5	73.3
[6	-3	16]	(2	4	0)	(-5	6	3)	4.028	1.403	2.87	75.0	55.6
[6	-3	-4]	(2	4	0)	(5	6	3)	4.028	1.403	2.87	54.0	80.3
[6	-3	-16]	(2	4	0)	(8	0	3)	4.028	1.401	2.88	74.7	55.6
[6	-3	-17]	(2	4	0)	(8	-1	3)	4.028	1.396	2.89	78.9	53.9
[2	-1	-5]	(2	4	0)	(8	1	3)	4.028	1.396	2.89	70.5	57.3
[2	-1	6]	(2	4	0)	(-7	4	3)	4.028	1.392	2.89	87.1	52.4
[6	-3	-10]	(2	4	0)	(7	4	3)	4.028	1.392	2.89	59.4	66.8
[2	-1	-6]	(2	4	0)	(8	-2	3)	4.028	1.384	2.91	83.0	52.4
[6	-3	-14]	(2	4	0)	(8	2	3)	4.028	1.384	2.91	66.4	59.1
[2	-1	5]	(2	4	0)	(-4	7	3)	4.028	1.383	2.91	69.1	57.3
[6	-3	-1]	(2	4	0)	(4	7	3)	4.028	1.383	2.91	51.9	87.5
[6	-3	10]	(2	4	0)	(-1	8	3)	4.028	1.379	2.92	58.5	66.8
[2	-1	2]	(2	4	0)	(1	8	3)	4.028	1.379	2.92	54.0	75.6
[4	-2	-11]	(2	4	0)	(9	7	2)	4.028	1.370	2.94	39.4	54.8
[2	-1	4]	(2	4	0)	(-2	8	3)	4.028	1.368	2.94	60.9	62.8
[6	-3	4]	(2	4	0)	(2	8	3)	4.028	1.368	2.94	52.1	80.3
[6	-3	-19]	(2	4	0)	(8	-3	3)	4.028	1.363	2.95	87.1	50.9
[6	-3	-13]	(2	4	0)	(8	3	3)	4.028	1.363	2.95	62.5	60.9
[4	-2	-5]	(2	4	0)	(7	9	2)	4.028	1.362	2.96	32.8	72.2
[2	-1	-3]	(2	4	0)	(7	5	3)	4.028	1.356	2.97	55.6	68.9
[6	-3	17]	(2	4	0)	(-5	7	3)	4.028	1.350	2.98	71.6	53.9
[2	-1	-1]	(2	4	0)	(5	7	3)	4.028	1.350	2.98	50.6	82.7
[6	-3	14]	(2	4	0)	(-3	8	3)	4.028	1.350	2.98	63.4	59.1
[6	-3	2]	(2	4	0)	(3	8	3)	4.028	1.350	2.98	50.3	85.1
[6	-3	20]	(2	4	0)	(-8	4	3)	4.028	1.337	3.01	89.0	49.4
[2	-1	4]	(2	4	0)	(8	4	-3)	4.028	1.337	3.01	58.6	62.8
[6	-3	19]	(2	4	0)	(-9	1	3)	4.028	1.333	3.02	77.6	50.9
[6	-3	-17]	(2	4	0)	(9	1	3)	4.028	1.333	3.02	69.5	53.9
[6	-3	16]	(2	4	0)	(-4	8	3)	4.028	1.325	3.04	65.9	55.6
[2	-1	0]	(2	4	0)	(4	8	3)	4.028	1.325	3.04	48.9	90.0
[6	-3	-20]	(2	4	0)	(9	-2	3)	4.028	1.322	3.05	81.5	49.4
[6	-3	-16]	(2	4	0)	(9	2	3)	4.028	1.322	3.05	65.6	55.6
[4	-2	-1]	(2	4	0)	(1	0	4)	4.028	1.317	3.06	88.2	86.3
[6	-3	20]	(2	4	0)	(-7	6	3)	4.028	1.315	3.06	79.6	49.4
[6	-3	-8]	(2	4	0)	(7	6	3)	4.028	1.315	3.06	52.2	71.1
[6	-3	11]	(2	4	0)	(-1	9	3)	4.028	1.315	3.06	55.7	64.8
[6	-3	7]	(2	4	0)	(1	9	3)	4.028	1.315	3.06	51.2	73.3
[2	-1	5]	(2	4	0)	(9	8	-2)	4.028	1.313	3.07	36.2	57.3
[8	-4	3]	(2	4	0)	(-1	1	4)	4.028	1.313	3.07	88.0	84.5
[8	-4	-1]	(2	4	0)	(1	1	4)	4.028	1.313	3.07	84.4	88.2
[6	-3	19]	(2	4	0)	(-6	7	3)	4.028	1.312	3.07	73.9	50.9
[6	-3	-5]	(2	4	0)	(6	7	3)	4.028	1.312	3.07	49.7	77.9
[4	-2	-7]	(2	4	0)	(8	9	2)	4.028	1.309	3.08	32.9	65.8
[6	-3	13]	(2	4	0)	(-2	9	3)	4.028	1.305	3.09	58.1	60.9
[6	-3	5]	(2	4	0)	(2	9	3)	4.028	1.305	3.09	49.3	77.9

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Anthophyllite (240) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[2	-1	7]	(2	4	0)	(-8	5	3)	4.028	1.304	3.09	85.3	48.0
[6	-3	-11]	(2	4	0)	(8	5	3)	4.028	1.304	3.09	55.0	64.8
[8	-4	5]	(2	4	0)	(-2	1	4)	4.028	1.303	3.09	89.8	80.9
[8	-4	-3]	(2	4	0)	(2	1	4)	4.028	1.303	3.09	82.7	84.5
[2	-1	1]	(2	4	0)	(-1	2	4)	4.028	1.303	3.09	84.2	82.7
[2	-1	0]	(2	4	0)	(1	2	4)	4.028	1.303	3.09	80.7	90.0
[2	-1	6]	(2	4	0)	(-5	8	3)	4.028	1.296	3.11	68.4	52.4
[6	-3	-2]	(2	4	0)	(5	8	3)	4.028	1.296	3.11	47.6	85.1
[4	-2	-3]	(2	4	0)	(3	0	4)	4.028	1.291	3.12	84.8	79.1
[8	-4	-7]	(2	4	0)	(3	-1	4)	4.028	1.287	3.13	88.5	77.3
[8	-4	-5]	(2	4	0)	(3	1	4)	4.028	1.287	3.13	81.0	80.9
[8	-4	5]	(2	4	0)	(-1	3	4)	4.028	1.286	3.13	80.6	80.9
[8	-4	1]	(2	4	0)	(1	3	4)	4.028	1.286	3.13	77.0	88.2
[6	-3	-22]	(2	4	0)	(9	-4	3)	4.028	1.281	3.14	89.2	46.7
[6	-3	-14]	(2	4	0)	(9	4	3)	4.028	1.281	3.14	58.1	59.1
[2	-1	2]	(2	4	0)	(-3	2	4)	4.028	1.278	3.15	87.8	75.6
[2	-1	-1]	(2	4	0)	(3	2	4)	4.028	1.278	3.15	77.4	82.7
[8	-4	7]	(2	4	0)	(-2	3	4)	4.028	1.277	3.16	82.4	77.3
[8	-4	-1]	(2	4	0)	(2	3	4)	4.028	1.277	3.16	75.4	88.2
[2	-1	7]	(2	4	0)	(-7	7	3)	4.028	1.271	3.17	76.2	48.0
[6	-3	-7]	(2	4	0)	(7	7	3)	4.028	1.271	3.17	48.9	73.3
[6	-3	-22]	(2	4	0)	(-8	6	-3)	4.028	1.268	3.18	81.7	46.7
[6	-3	10]	(2	4	0)	(8	6	-3)	4.028	1.268	3.18	51.6	66.8
[6	-3	17]	(2	4	0)	(-4	9	3)	4.028	1.268	3.18	63.0	53.9
[6	-3	1]	(2	4	0)	(4	9	3)	4.028	1.268	3.18	46.1	87.5
[8	-4	-9]	(2	4	0)	(4	-1	4)	4.028	1.266	3.18	86.8	73.9
[8	-4	-7]	(2	4	0)	(4	1	4)	4.028	1.266	3.18	79.5	77.3
[4	-2	-1]	(2	4	0)	(-1	-4	4)	4.028	1.263	3.19	73.5	86.3
[6	-3	20]	(2	4	0)	(-6	8	3)	4.028	1.262	3.19	70.8	49.4
[6	-3	-4]	(2	4	0)	(6	8	3)	4.028	1.262	3.19	46.7	80.3
[8	-4	9]	(2	4	0)	(-3	3	4)	4.028	1.262	3.19	84.2	73.9
[8	-4	-3]	(2	4	0)	(3	3	4)	4.028	1.262	3.19	73.8	84.5
[4	-2	-9]	(2	4	0)	(9	9	2)	4.028	1.257	3.20	33.4	60.0
[6	-3	-13]	(2	4	0)	(9	5	3)	4.028	1.252	3.22	54.5	60.9
[4	-2	-5]	(2	4	0)	(5	0	4)	4.028	1.243	3.24	81.6	72.2
[6	-3	19]	(2	4	0)	(-5	9	3)	4.028	1.242	3.24	65.4	50.9
[6	-3	-1]	(2	4	0)	(5	9	3)	4.028	1.242	3.24	44.9	87.5
[8	-4	11]	(2	4	0)	(-4	3	4)	4.028	1.242	3.24	86.0	70.5
[8	-4	5]	(2	4	0)	(4	3	-4)	4.028	1.242	3.24	72.3	80.9
[8	-4	11]	(2	4	0)	(5	-1	-4)	4.028	1.240	3.25	85.2	70.5
[8	-4	-9]	(2	4	0)	(5	1	4)	4.028	1.240	3.25	78.0	73.9
[4	-2	5]	(2	4	0)	(-3	4	4)	4.028	1.240	3.25	80.7	72.2
[4	-2	-1]	(2	4	0)	(3	4	4)	4.028	1.240	3.25	70.3	86.3
[8	-4	7]	(2	4	0)	(-1	5	4)	4.028	1.236	3.26	73.6	77.3
[8	-4	3]	(2	4	0)	(1	5	4)	4.028	1.236	3.26	70.1	84.5
[2	-1	-3]	(2	4	0)	(5	-2	4)	4.028	1.231	3.27	88.8	68.9
[2	-1	2]	(2	4	0)	(5	2	-4)	4.028	1.231	3.27	74.4	75.6
[6	-3	-23]	(2	4	0)	(8	-7	3)	4.028	1.228	3.28	78.4	45.4

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Anthophyllite (240) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[2	-1	-3]	(2	4	0)	(8	7	3)	4.028	1.228	3.28	48.4	68.9
[8	-4	9]	(2	4	0)	(-2	5	4)	4.028	1.228	3.28	75.5	73.9
[8	-4	1]	(2	4	0)	(2	5	4)	4.028	1.228	3.28	68.5	88.2
[6	-3	22]	(2	4	0)	(-7	8	3)	4.028	1.226	3.29	73.1	46.7
[2	-1	-2]	(2	4	0)	(7	8	3)	4.028	1.226	3.29	46.0	75.6
[8	-4	13]	(2	4	0)	(-5	3	4)	4.028	1.217	3.31	87.7	67.3
[8	-4	-7]	(2	4	0)	(5	3	4)	4.028	1.217	3.31	70.9	77.3
[8	-4	11]	(2	4	0)	(-3	5	4)	4.028	1.214	3.32	77.3	70.5
[8	-4	-1]	(2	4	0)	(3	5	4)	4.028	1.214	3.32	67.0	88.2
[8	-4	13]	(2	4	0)	(-6	1	4)	4.028	1.211	3.33	83.7	67.3
[8	-4	-11]	(2	4	0)	(6	1	4)	4.028	1.211	3.33	76.6	70.5
[2	-1	2]	(2	4	0)	(-1	6	4)	4.028	1.205	3.34	70.4	75.6
[2	-1	1]	(2	4	0)	(1	6	4)	4.028	1.205	3.34	66.9	82.7
[4	-2	7]	(2	4	0)	(-5	4	4)	4.028	1.198	3.36	84.3	65.8
[4	-2	-3]	(2	4	0)	(5	4	4)	4.028	1.198	3.36	67.5	79.1
[8	-4	13]	(2	4	0)	(-4	5	4)	4.028	1.196	3.37	79.2	67.3
[8	-4	-3]	(2	4	0)	(4	5	4)	4.028	1.196	3.37	65.6	84.5
[8	-4	15]	(2	4	0)	(-6	3	4)	4.028	1.189	3.39	89.3	64.3
[8	-4	-9]	(2	4	0)	(6	3	4)	4.028	1.189	3.39	69.7	73.9
[6	-3	-8]	(2	4	0)	(8	8	3)	4.028	1.187	3.39	45.5	71.1
[6	-3	-11]	(2	4	0)	(9	7	3)	4.028	1.185	3.40	48.1	64.8
[2	-1	3]	(2	4	0)	(-3	6	4)	4.028	1.185	3.40	74.1	68.9
[2	-1	0]	(2	4	0)	(3	6	4)	4.028	1.185	3.40	63.8	90.0
[4	-2	-7]	(2	4	0)	(7	0	4)	4.028	1.181	3.41	78.8	65.8
[6	-3	-23]	(2	4	0)	(-7	9	-3)	4.028	1.179	3.42	70.2	45.4
[6	-3	5]	(2	4	0)	(7	9	-3)	4.028	1.179	3.42	43.3	77.9
[8	-4	-15]	(2	4	0)	(7	-1	4)	4.028	1.178	3.42	82.2	64.3
[8	-4	-13]	(2	4	0)	(7	1	4)	4.028	1.178	3.42	75.3	67.3
[8	-4	15]	(2	4	0)	(-5	5	4)	4.028	1.174	3.43	81.0	64.3
[8	-4	-5]	(2	4	0)	(5	5	4)	4.028	1.174	3.43	64.3	80.9
[2	-1	-4]	(2	4	0)	(7	-2	4)	4.028	1.171	3.44	85.7	62.8
[2	-1	-3]	(2	4	0)	(7	2	4)	4.028	1.171	3.44	71.9	68.9
[8	-4	9]	(2	4	0)	(-1	7	4)	4.028	1.171	3.44	67.4	73.9
[8	-4	5]	(2	4	0)	(1	7	4)	4.028	1.171	3.44	63.9	80.9
[8	-4	11]	(2	4	0)	(-2	7	4)	4.028	1.164	3.46	69.2	70.5
[8	-4	3]	(2	4	0)	(2	7	4)	4.028	1.164	3.46	62.3	84.5
[8	-4	-17]	(2	4	0)	(7	-3	4)	4.028	1.158	3.48	89.1	61.4
[8	-4	-11]	(2	4	0)	(7	3	4)	4.028	1.158	3.48	68.6	70.5
[8	-4	13]	(2	4	0)	(-3	7	4)	4.028	1.152	3.50	71.1	67.3
[8	-4	1]	(2	4	0)	(3	7	4)	4.028	1.152	3.50	60.9	88.2
[8	-4	17]	(2	4	0)	(-6	5	4)	4.028	1.149	3.51	82.7	61.4
[8	-4	-7]	(2	4	0)	(6	5	4)	4.028	1.149	3.51	63.2	77.3
[6	-3	10]	(2	4	0)	(9	8	-3)	4.028	1.148	3.51	45.2	66.8
[2	-1	4]	(2	4	0)	(-5	6	4)	4.028	1.148	3.51	77.8	62.8
[2	-1	-1]	(2	4	0)	(5	6	4)	4.028	1.148	3.51	61.2	82.7
[6	-3	-7]	(2	4	0)	(8	9	3)	4.028	1.145	3.52	42.8	73.3
[8	-4	17]	(2	4	0)	(8	-1	-4)	4.028	1.144	3.52	80.9	61.4
[8	-4	-15]	(2	4	0)	(8	1	4)	4.028	1.144	3.52	74.2	64.3

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Anthophyllite (240) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[4	-2	9]	(2	4	0)	(-7	4	4)	4.028	1.142	3.53	87.6	60.0
[4	-2	-5]	(2	4	0)	(7	4	4)	4.028	1.142	3.53	65.3	72.2
[8	-4	15]	(2	4	0)	(-4	7	4)	4.028	1.137	3.54	73.0	64.3
[8	-4	-1]	(2	4	0)	(4	7	4)	4.028	1.137	3.54	59.5	88.2
[4	-2	-5]	(2	4	0)	(1	-8	4)	4.028	1.135	3.55	64.5	72.2
[4	-2	3]	(2	4	0)	(1	8	4)	4.028	1.135	3.55	61.1	79.1
[8	-4	-19]	(2	4	0)	(8	-3	4)	4.028	1.126	3.58	87.6	58.6
[8	-4	-13]	(2	4	0)	(8	3	4)	4.028	1.126	3.58	67.6	67.3
[8	-4	9]	(2	4	0)	(7	5	-4)	4.028	1.121	3.59	62.2	73.9
[8	-4	-17]	(2	4	0)	(-5	7	-4)	4.028	1.118	3.60	74.8	61.4
[8	-4	-3]	(2	4	0)	(5	7	4)	4.028	1.118	3.60	58.3	84.5
[4	-2	7]	(2	4	0)	(-3	8	4)	4.028	1.118	3.60	68.2	65.8
[4	-2	1]	(2	4	0)	(3	8	4)	4.028	1.118	3.60	58.1	86.3
[4	-2	-9]	(2	4	0)	(9	0	4)	4.028	1.111	3.63	76.4	60.0
[2	-1	-5]	(2	4	0)	(9	-2	4)	4.028	1.102	3.65	83.0	57.3
[2	-1	-4]	(2	4	0)	(9	2	4)	4.028	1.102	3.65	69.9	62.8
[2	-1	5]	(2	4	0)	(-7	6	4)	4.028	1.098	3.67	81.4	57.3
[2	-1	2]	(2	4	0)	(7	6	-4)	4.028	1.098	3.67	59.2	75.6
[8	-4	11]	(2	4	0)	(-1	9	4)	4.028	1.098	3.67	61.9	70.5
[8	-4	7]	(2	4	0)	(1	9	4)	4.028	1.098	3.67	58.5	77.3
[8	-4	19]	(2	4	0)	(-6	7	4)	4.028	1.096	3.67	76.6	58.6
[8	-4	-5]	(2	4	0)	(6	7	4)	4.028	1.096	3.67	57.3	80.9
[8	-4	13]	(2	4	0)	(-2	9	4)	4.028	1.092	3.69	63.7	67.3
[8	-4	5]	(2	4	0)	(2	9	4)	4.028	1.092	3.69	56.9	80.9
[8	-4	-21]	(2	4	0)	(9	-3	4)	4.028	1.092	3.69	86.2	56.0
[8	-4	-15]	(2	4	0)	(9	3	4)	4.028	1.092	3.69	66.7	64.3
[8	-4	-11]	(2	4	0)	(8	5	4)	4.028	1.092	3.69	61.3	70.5
[4	-2	9]	(2	4	0)	(-5	8	4)	4.028	1.087	3.71	72.0	60.0
[4	-2	-1]	(2	4	0)	(5	8	4)	4.028	1.087	3.71	55.6	86.3
[8	-4	15]	(2	4	0)	(-3	9	4)	4.028	1.083	3.72	65.6	64.3
[8	-4	3]	(2	4	0)	(3	9	4)	4.028	1.083	3.72	55.5	84.5
[4	-2	-11]	(2	4	0)	(9	-4	4)	4.028	1.078	3.74	89.3	54.8
[4	-2	-7]	(2	4	0)	(9	4	4)	4.028	1.078	3.74	63.6	65.8
[8	-4	21]	(2	4	0)	(-7	7	4)	4.028	1.072	3.76	78.4	56.0
[8	-4	-7]	(2	4	0)	(7	7	4)	4.028	1.072	3.76	56.4	77.3
[8	-4	17]	(2	4	0)	(-4	9	4)	4.028	1.070	3.76	67.4	61.4
[8	-4	1]	(2	4	0)	(4	9	4)	4.028	1.070	3.76	54.2	88.2
[8	-4	23]	(2	4	0)	(-9	5	4)	4.028	1.061	3.80	87.6	53.5
[8	-4	-13]	(2	4	0)	(9	5	4)	4.028	1.061	3.80	60.6	67.3
[10	-5	-2]	(2	4	0)	(1	0	5)	4.028	1.054	3.82	88.6	87.1
[8	-4	19]	(2	4	0)	(-5	9	4)	4.028	1.054	3.82	69.3	58.6
[8	-4	-1]	(2	4	0)	(5	9	4)	4.028	1.054	3.82	53.0	88.2
[10	-5	1]	(2	4	0)	(0	1	5)	4.028	1.054	3.82	87.0	88.5
[10	-5	3]	(2	4	0)	(-1	1	5)	4.028	1.052	3.83	88.4	85.6
[10	-5	-1]	(2	4	0)	(1	1	5)	4.028	1.052	3.83	85.5	88.5
[10	-5	-4]	(2	4	0)	(2	0	5)	4.028	1.049	3.84	87.2	84.1
[2	-1	1]	(2	4	0)	(-2	1	5)	4.028	1.047	3.85	89.8	82.7
[10	-5	-3]	(2	4	0)	(2	1	5)	4.028	1.047	3.85	84.1	85.6

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Anthophyllite (240) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[10	-5	4]	(2	4	0)	(-1	2	5)	4.028	1.047	3.85	85.4	84.1
[2	-1	0]	(2	4	0)	(1	2	5)	4.028	1.047	3.85	82.5	90.0
[8	-4	23]	(2	4	0)	(-8	7	4)	4.028	1.046	3.85	80.1	53.5
[8	-4	-9]	(2	4	0)	(8	7	4)	4.028	1.046	3.85	55.6	73.9
[4	-2	11]	(2	4	0)	(-7	8	4)	4.028	1.044	3.86	75.6	54.8
[4	-2	-3]	(2	4	0)	(7	8	4)	4.028	1.044	3.86	53.7	79.1
[10	-5	6]	(2	4	0)	(-2	2	5)	4.028	1.042	3.87	86.8	81.2
[10	-5	-2]	(2	4	0)	(2	2	5)	4.028	1.042	3.87	81.1	87.1
[2	-1	6]	(2	4	0)	(-9	6	4)	4.028	1.041	3.87	84.6	52.4
[2	-1	-3]	(2	4	0)	(9	6	4)	4.028	1.041	3.87	57.7	68.9
[10	-5	-6]	(2	4	0)	(3	0	5)	4.028	1.041	3.87	85.8	81.2
[10	-5	3]	(2	4	0)	(0	3	5)	4.028	1.040	3.87	81.0	85.6
[10	-5	-7]	(2	4	0)	(3	-1	5)	4.028	1.039	3.88	88.8	79.8
[2	-1	-1]	(2	4	0)	(3	1	5)	4.028	1.039	3.88	82.8	82.7
[2	-1	1]	(2	4	0)	(-1	3	5)	4.028	1.038	3.88	82.4	82.7
[10	-5	1]	(2	4	0)	(1	3	5)	4.028	1.038	3.88	79.6	88.5
[8	-4	21]	(2	4	0)	(-6	9	4)	4.028	1.036	3.89	71.2	56.0
[8	-4	3]	(2	4	0)	(6	9	-4)	4.028	1.036	3.89	52.0	84.5
[10	-5	-8]	(2	4	0)	(-3	2	-5)	4.028	1.034	3.90	88.2	78.4
[10	-5	-4]	(2	4	0)	(3	2	5)	4.028	1.034	3.90	79.8	84.1
[10	-5	7]	(2	4	0)	(-2	3	5)	4.028	1.033	3.90	83.8	79.8
[10	-5	-1]	(2	4	0)	(2	3	5)	4.028	1.033	3.90	78.2	88.5
[10	-5	-8]	(2	4	0)	(4	0	5)	4.028	1.030	3.91	84.4	78.4
[10	-5	-9]	(2	4	0)	(4	-1	5)	4.028	1.028	3.92	87.4	77.0
[10	-5	-7]	(2	4	0)	(4	1	5)	4.028	1.028	3.92	81.5	79.8
[10	-5	6]	(2	4	0)	(-1	4	5)	4.028	1.026	3.93	79.5	81.2
[10	-5	2]	(2	4	0)	(1	4	5)	4.028	1.026	3.93	76.7	87.1
[10	-5	9]	(2	4	0)	(-3	3	5)	4.028	1.025	3.93	85.3	77.0
[10	-5	-3]	(2	4	0)	(3	3	5)	4.028	1.025	3.93	76.9	85.6
[2	-1	2]	(2	4	0)	(-4	2	5)	4.028	1.023	3.94	89.6	75.6
[10	-5	-6]	(2	4	0)	(4	2	5)	4.028	1.023	3.94	78.5	81.2
[10	-5	8]	(2	4	0)	(-2	4	5)	4.028	1.021	3.94	80.9	78.4
[2	-1	0]	(2	4	0)	(2	4	5)	4.028	1.021	3.94	75.3	90.0
[8	-4	-11]	(2	4	0)	(9	7	4)	4.028	1.019	3.95	54.9	70.5
[8	-4	-23]	(2	4	0)	(-7	9	-4)	4.028	1.015	3.97	73.0	53.5
[8	-4	5]	(2	4	0)	(-7	-9	4)	4.028	1.015	3.97	51.2	80.9
[10	-5	11]	(2	4	0)	(-4	3	5)	4.028	1.015	3.97	86.7	74.2
[2	-1	-1]	(2	4	0)	(4	3	5)	4.028	1.015	3.97	75.6	82.7
[10	-5	-11]	(2	4	0)	(5	-1	5)	4.028	1.014	3.97	86.1	74.2
[10	-5	-9]	(2	4	0)	(5	1	5)	4.028	1.014	3.97	80.2	77.0
[2	-1	2]	(2	4	0)	(-3	4	5)	4.028	1.014	3.97	82.4	75.6
[10	-5	-2]	(2	4	0)	(3	4	5)	4.028	1.014	3.97	74.0	87.1
[10	-5	7]	(2	4	0)	(-1	5	5)	4.028	1.011	3.98	76.7	79.8
[10	-5	3]	(2	4	0)	(1	5	5)	4.028	1.011	3.98	73.9	85.6
[10	-5	-12]	(2	4	0)	(5	-2	5)	4.028	1.009	3.99	89.0	72.9
[10	-5	-8]	(2	4	0)	(5	2	5)	4.028	1.009	3.99	77.3	78.4
[10	-5	9]	(2	4	0)	(-2	5	5)	4.028	1.007	4.00	78.1	77.0
[10	-5	1]	(2	4	0)	(2	5	5)	4.028	1.007	4.00	72.5	88.5

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Anthophyllite (240) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[10	-5	12]	(2	4	0)	(-4	4	5)	4.028	1.003	4.02	83.8	72.9
[10	-5	-4]	(2	4	0)	(4	4	5)	4.028	1.003	4.02	72.8	84.1
[10	-5	13]	(2	4	0)	(-5	3	5)	4.028	1.001	4.02	88.1	71.5
[10	-5	-7]	(2	4	0)	(5	3	5)	4.028	1.001	4.02	74.4	79.8

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Anthophyllite (430) 487 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-4	-3]	(4	3	0)	(1	0	1)	3.655	5.077	0.72	77.5	80.1
[3	-4	4]	(4	3	0)	(0	1	1)	3.655	5.064	0.72	80.0	76.9
[3	-4	-7]	(4	3	0)	(1	-1	1)	3.655	4.885	0.75	87.6	67.8
[3	-4	1]	(4	3	0)	(1	1	1)	3.655	4.885	0.75	67.9	86.7
[3	-4	-6]	(4	3	0)	(2	0	1)	3.655	4.586	0.80	66.9	70.7
[3	-4	-10]	(4	3	0)	(2	-1	1)	3.655	4.442	0.82	76.8	59.8
[3	-4	-2]	(4	3	0)	(2	1	1)	3.655	4.442	0.82	57.9	83.4
[3	-4	11]	(4	3	0)	(-1	2	1)	3.655	4.416	0.83	83.5	57.3
[3	-4	-5]	(4	3	0)	(1	2	-1)	3.655	4.416	0.83	60.6	73.8
[3	-4	14]	(4	3	0)	(2	-2	-1)	3.655	4.081	0.90	86.0	50.8
[3	-4	2]	(4	3	0)	(2	2	1)	3.655	4.081	0.90	51.1	83.4
[3	-4	-9]	(4	3	0)	(3	0	1)	3.655	4.011	0.91	59.1	62.3
[3	-4	12]	(4	3	0)	(0	3	1)	3.655	3.954	0.92	66.0	55.0
[3	-4	-13]	(4	3	0)	(3	-1	1)	3.655	3.914	0.93	68.4	52.8
[3	-4	-5]	(4	3	0)	(3	1	1)	3.655	3.914	0.93	50.5	73.8
[3	-4	15]	(4	3	0)	(-1	3	1)	3.655	3.867	0.95	76.6	48.8
[3	-4	9]	(4	3	0)	(1	3	1)	3.655	3.867	0.95	55.8	62.3
[3	-4	-17]	(4	3	0)	(3	-2	1)	3.655	3.660	1.00	77.4	45.3
[3	-4	1]	(4	3	0)	(3	2	-1)	3.655	3.660	1.00	44.0	86.7
[3	-4	-6]	(4	3	0)	(-2	-3	1)	3.655	3.636	1.01	46.8	70.7
[3	-4	-12]	(4	3	0)	(4	0	1)	3.655	3.479	1.05	53.5	55.0
[3	-4	-16]	(4	3	0)	(4	-1	1)	3.655	3.415	1.07	62.2	47.0
[3	-4	-8]	(4	3	0)	(4	1	1)	3.655	3.415	1.07	45.5	65.0
[3	-4	13]	(4	3	0)	(1	4	1)	3.655	3.357	1.09	52.9	52.8
[3	-4	3]	(4	3	0)	(3	3	1)	3.655	3.329	1.10	39.8	80.1
[3	-4	-4]	(4	3	0)	(4	2	1)	3.655	3.243	1.13	39.1	76.9
[3	-4	-10]	(4	3	0)	(2	4	-1)	3.655	3.203	1.14	44.6	59.8
[3	-4	-15]	(4	3	0)	(5	0	1)	3.655	3.030	1.21	49.7	48.8
[3	-4	0]	(4	3	0)	(4	3	1)	3.655	3.005	1.22	34.7	90.0
[3	-4	-11]	(4	3	0)	(5	1	1)	3.655	2.988	1.22	42.2	57.3
[3	-4	-7]	(4	3	0)	(3	4	-1)	3.655	2.987	1.22	37.7	67.8
[3	-4	-17]	(4	3	0)	(-1	-5	1)	3.655	2.926	1.25	51.3	45.3
[3	-4	-7]	(4	3	0)	(5	2	1)	3.655	2.870	1.27	35.9	67.8
[3	-4	14]	(4	3	0)	(2	5	1)	3.655	2.822	1.30	43.6	50.8
[3	-4	4]	(4	3	0)	(4	4	1)	3.655	2.747	1.33	32.3	76.9
[3	-4	-3]	(4	3	0)	(5	3	1)	3.655	2.702	1.35	31.3	80.1
[3	-4	-11]	(4	3	0)	(3	5	-1)	3.655	2.671	1.37	36.9	57.3
[3	-4	0]	(4	3	0)	(0	0	2)	3.655	2.640	1.38	90.0	90.0
[3	-4	14]	(4	3	0)	(6	1	-1)	3.655	2.634	1.39	40.1	50.8
[6	-8	-3]	(4	3	0)	(1	0	2)	3.655	2.614	1.40	83.6	85.0
[6	-8	-7]	(4	3	0)	(1	-1	2)	3.655	2.586	1.41	88.7	78.5
[6	-8	1]	(4	3	0)	(1	1	2)	3.655	2.586	1.41	78.5	88.3
[3	-4	-10]	(4	3	0)	(6	2	1)	3.655	2.552	1.43	34.0	59.8
[3	-4	-5]	(4	3	0)	(2	-1	2)	3.655	2.513	1.45	82.6	73.8
[3	-4	-1]	(4	3	0)	(2	1	2)	3.655	2.513	1.45	72.5	86.7
[3	-4	1]	(4	3	0)	(5	4	1)	3.655	2.509	1.46	28.4	86.7
[6	-8	11]	(4	3	0)	(-1	2	2)	3.655	2.509	1.46	86.3	72.2
[6	-8	5]	(4	3	0)	(1	2	2)	3.655	2.509	1.46	73.8	81.7

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Anthophyllite (430) 487 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-4	8]	(4	3	0)	(4	5	1)	3.655	2.495	1.47	31.4	65.0
[3	-4	-6]	(4	3	0)	(6	3	1)	3.655	2.431	1.50	29.2	70.7
[6	-8	-9]	(4	3	0)	(3	0	2)	3.655	2.427	1.51	71.9	75.3
[6	-8	-13]	(4	3	0)	(3	-1	2)	3.655	2.405	1.52	76.9	69.3
[6	-8	-5]	(4	3	0)	(3	1	2)	3.655	2.405	1.52	67.0	81.7
[6	-8	15]	(4	3	0)	(-1	3	2)	3.655	2.394	1.53	81.7	66.4
[6	-8	9]	(4	3	0)	(1	3	2)	3.655	2.394	1.53	69.6	75.3
[3	-4	-15]	(4	3	0)	(3	6	-1)	3.655	2.394	1.53	37.0	48.8
[3	-4	17]	(4	3	0)	(-7	-1	1)	3.655	2.343	1.56	38.7	45.3
[6	-8	-17]	(4	3	0)	(3	-2	2)	3.655	2.342	1.56	82.0	63.6
[6	-8	-1]	(4	3	0)	(3	2	2)	3.655	2.342	1.56	62.6	88.3
[3	-4	9]	(4	3	0)	(-2	3	2)	3.655	2.336	1.56	87.7	62.3
[3	-4	3]	(4	3	0)	(2	3	2)	3.655	2.336	1.56	63.9	80.1
[3	-4	5]	(4	3	0)	(5	5	1)	3.655	2.313	1.58	27.1	73.8
[3	-4	13]	(4	3	0)	(-7	-2	1)	3.655	2.285	1.60	32.9	52.8
[3	-4	-8]	(4	3	0)	(4	-1	2)	3.655	2.274	1.61	71.9	65.0
[3	-4	-4]	(4	3	0)	(4	1	2)	3.655	2.274	1.61	62.2	76.9
[3	-4	12]	(4	3	0)	(4	6	1)	3.655	2.265	1.61	31.6	55.0
[6	-8	19]	(4	3	0)	(-1	4	2)	3.655	2.257	1.62	77.7	61.0
[6	-8	13]	(4	3	0)	(1	4	2)	3.655	2.257	1.62	66.1	69.3
[6	-8	-21]	(4	3	0)	(3	-3	2)	3.655	2.248	1.63	86.7	58.5
[6	-8	3]	(4	3	0)	(3	3	2)	3.655	2.248	1.63	58.7	85.0
[3	-4	9]	(4	3	0)	(-7	-3	1)	3.655	2.197	1.66	28.0	62.3
[6	-8	-15]	(4	3	0)	(5	0	2)	3.655	2.149	1.70	62.7	66.4
[3	-4	-12]	(4	3	0)	(4	-3	2)	3.655	2.140	1.71	81.6	55.0
[3	-4	0]	(4	3	0)	(4	3	2)	3.655	2.140	1.71	54.2	90.0
[3	-4	-2]	(4	3	0)	(6	5	-1)	3.655	2.136	1.71	24.0	83.4
[6	-8	19]	(4	3	0)	(-5	1	2)	3.655	2.134	1.71	67.5	61.0
[6	-8	-11]	(4	3	0)	(5	1	2)	3.655	2.134	1.71	58.1	72.2
[6	-8	25]	(4	3	0)	(-3	4	2)	3.655	2.133	1.71	88.9	53.9
[6	-8	-7]	(4	3	0)	(3	4	-2)	3.655	2.133	1.71	55.6	78.5
[3	-4	-9]	(4	3	0)	(-5	-6	1)	3.655	2.126	1.72	27.0	62.3
[6	-8	23]	(4	3	0)	(-1	5	2)	3.655	2.111	1.73	74.3	56.2
[6	-8	17]	(4	3	0)	(1	5	2)	3.655	2.111	1.73	63.2	63.6
[3	-4	5]	(4	3	0)	(7	4	-1)	3.655	2.090	1.75	24.3	73.8
[6	-8	23]	(4	3	0)	(5	-2	-2)	3.655	2.090	1.75	72.3	56.2
[6	-8	-7]	(4	3	0)	(5	2	2)	3.655	2.090	1.75	53.9	78.5
[3	-4	13]	(4	3	0)	(-2	5	2)	3.655	2.071	1.77	79.8	52.8
[3	-4	7]	(4	3	0)	(2	5	2)	3.655	2.071	1.77	57.9	67.8
[3	-4	-16]	(4	3	0)	(8	2	1)	3.655	2.061	1.77	32.3	47.0
[3	-4	-16]	(4	3	0)	(4	7	-1)	3.655	2.060	1.77	32.2	47.0
[6	-8	-27]	(4	3	0)	(5	-3	2)	3.655	2.022	1.81	77.0	51.8
[6	-8	-3]	(4	3	0)	(5	3	2)	3.655	2.022	1.81	50.2	85.0
[6	-8	29]	(4	3	0)	(-3	5	2)	3.655	2.009	1.82	85.0	49.8
[6	-8	-11]	(4	3	0)	(3	5	-2)	3.655	2.009	1.82	53.0	72.2
[3	-4	-12]	(4	3	0)	(8	3	1)	3.655	1.996	1.83	27.5	55.0
[3	-4	-11]	(4	3	0)	(6	-1	2)	3.655	1.993	1.83	63.7	57.3
[3	-4	-7]	(4	3	0)	(6	1	2)	3.655	1.993	1.83	54.6	67.8

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Anthophyllite (430) 487 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-4	6]	(4	3	0)	(6	6	1)	3.655	1.986	1.84	23.5	70.7
[3	-4	-1]	(4	3	0)	(7	5	1)	3.655	1.972	1.85	22.0	86.7
[6	-8	27]	(4	3	0)	(-1	6	2)	3.655	1.966	1.86	71.4	51.8
[6	-8	21]	(4	3	0)	(1	6	2)	3.655	1.966	1.86	60.8	58.5
[3	-4	-13]	(4	3	0)	(5	7	-1)	3.655	1.954	1.87	27.7	52.8
[6	-8	31]	(4	3	0)	(-5	4	2)	3.655	1.937	1.89	81.5	47.9
[6	-8	1]	(4	3	0)	(5	4	2)	3.655	1.937	1.89	47.2	88.3
[3	-4	16]	(4	3	0)	(-4	5	2)	3.655	1.931	1.89	90.0	47.0
[3	-4	4]	(4	3	0)	(4	5	2)	3.655	1.931	1.89	48.7	76.9
[3	-4	-8]	(4	3	0)	(8	4	1)	3.655	1.915	1.91	23.6	65.0
[3	-4	15]	(4	3	0)	(6	-3	-2)	3.655	1.901	1.92	73.0	48.8
[3	-4	-3]	(4	3	0)	(6	3	2)	3.655	1.901	1.92	47.0	80.1
[6	-8	33]	(4	3	0)	(-3	6	2)	3.655	1.883	1.94	81.6	46.1
[6	-8	-15]	(4	3	0)	(3	6	-2)	3.655	1.883	1.94	51.1	66.4
[6	-8	-21]	(4	3	0)	(7	0	2)	3.655	1.868	1.96	56.0	58.5
[6	-8	-25]	(4	3	0)	(7	-1	2)	3.655	1.858	1.97	60.5	53.9
[6	-8	-17]	(4	3	0)	(7	1	2)	3.655	1.858	1.97	51.7	63.6
[3	-4	3]	(4	3	0)	(7	6	1)	3.655	1.852	1.97	20.9	80.1
[3	-4	10]	(4	3	0)	(6	7	1)	3.655	1.844	1.98	23.8	59.8
[6	-8	5]	(4	3	0)	(5	5	2)	3.655	1.843	1.98	44.9	81.7
[6	-8	29]	(4	3	0)	(-7	2	2)	3.655	1.828	2.00	65.1	49.8
[6	-8	-13]	(4	3	0)	(7	2	2)	3.655	1.828	2.00	47.8	69.3
[6	-8	31]	(4	3	0)	(-1	7	2)	3.655	1.828	2.00	68.9	47.9
[6	-8	25]	(4	3	0)	(1	7	2)	3.655	1.828	2.00	58.9	53.9
[3	-4	-15]	(4	3	0)	(9	3	1)	3.655	1.824	2.00	27.3	48.8
[3	-4	-4]	(4	3	0)	(8	5	1)	3.655	1.823	2.01	20.8	76.9
[3	-4	17]	(4	3	0)	(-2	7	2)	3.655	1.802	2.03	73.9	45.3
[3	-4	11]	(4	3	0)	(2	7	2)	3.655	1.802	2.03	54.2	57.3
[3	-4	17]	(4	3	0)	(5	8	1)	3.655	1.800	2.03	28.7	45.3
[6	-8	33]	(4	3	0)	(7	-3	-2)	3.655	1.782	2.05	69.5	46.1
[6	-8	9]	(4	3	0)	(-7	-3	2)	3.655	1.782	2.05	44.3	75.3
[3	-4	-11]	(4	3	0)	(9	4	1)	3.655	1.761	2.08	23.3	57.3
[6	-8	19]	(4	3	0)	(3	7	2)	3.655	1.760	2.08	49.7	61.0
[3	-4	-1]	(4	3	0)	(1	0	3)	3.655	1.752	2.09	85.7	86.7
[9	-12	4]	(4	3	0)	(0	1	3)	3.655	1.752	2.09	86.6	85.6
[3	-4	-1]	(4	3	0)	(6	5	-2)	3.655	1.750	2.09	41.6	86.7
[9	-12	7]	(4	3	0)	(1	-1	-3)	3.655	1.744	2.10	89.2	82.3
[9	-12	1]	(4	3	0)	(1	1	3)	3.655	1.744	2.10	82.3	88.9
[6	-8	9]	(4	3	0)	(5	6	2)	3.655	1.744	2.10	43.1	75.3
[3	-4	-7]	(4	3	0)	(7	7	-1)	3.655	1.736	2.11	20.8	67.8
[3	-4	-14]	(4	3	0)	(8	-1	2)	3.655	1.731	2.11	57.8	50.8
[3	-4	-10]	(4	3	0)	(8	1	2)	3.655	1.731	2.11	49.4	59.8
[3	-4	-2]	(4	3	0)	(2	0	3)	3.655	1.729	2.11	81.5	83.4
[3	-4	0]	(4	3	0)	(8	6	1)	3.655	1.727	2.12	19.1	90.0
[6	-8	5]	(4	3	0)	(7	4	-2)	3.655	1.724	2.12	41.3	81.7
[9	-12	10]	(4	3	0)	(-2	1	3)	3.655	1.721	2.12	84.9	79.0
[9	-12	-2]	(4	3	0)	(2	1	3)	3.655	1.721	2.12	78.1	87.8
[9	-12	11]	(4	3	0)	(-1	2	3)	3.655	1.719	2.13	87.5	77.9

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[9	-12	5]	(4	3	0)	(1	2	3)	3.655	1.719	2.13	79.0	84.5
[3	-4	-14]	(4	3	0)	(6	8	-1)	3.655	1.713	2.13	24.8	50.8
[3	-4	-8]	(4	3	0)	(4	7	-2)	3.655	1.707	2.14	45.5	65.0
[3	-4	-16]	(4	3	0)	(0	-8	2)	3.655	1.707	2.14	62.1	47.0
[6	-8	29]	(4	3	0)	(1	8	2)	3.655	1.700	2.15	57.5	49.8
[9	-12	-14]	(4	3	0)	(2	-2	3)	3.655	1.698	2.15	88.3	74.8
[9	-12	2]	(4	3	0)	(2	2	3)	3.655	1.698	2.15	74.9	87.8
[3	-4	-7]	(4	3	0)	(9	5	1)	3.655	1.689	2.16	20.2	67.8
[9	-12	5]	(4	3	0)	(-3	-1	3)	3.655	1.685	2.17	74.1	84.5
[3	-4	5]	(4	3	0)	(-1	3	3)	3.655	1.681	2.17	84.2	73.8
[3	-4	3]	(4	3	0)	(1	3	3)	3.655	1.681	2.17	75.9	80.1
[3	-4	-6]	(4	3	0)	(8	3	2)	3.655	1.670	2.19	42.1	70.7
[9	-12	-1]	(4	3	0)	(3	2	3)	3.655	1.663	2.20	70.9	88.9
[3	-4	6]	(4	3	0)	(-2	3	3)	3.655	1.661	2.20	88.4	70.7
[3	-4	2]	(4	3	0)	(2	3	3)	3.655	1.661	2.20	71.8	83.4
[6	-8	-1]	(4	3	0)	(7	5	2)	3.655	1.656	2.21	38.9	88.3
[6	-8	-13]	(4	3	0)	(5	7	-2)	3.655	1.645	2.22	41.8	69.3
[6	-8	-23]	(4	3	0)	(3	8	-2)	3.655	1.645	2.22	48.6	56.2
[3	-4	-4]	(4	3	0)	(4	0	3)	3.655	1.645	2.22	73.7	76.9
[9	-12	-16]	(4	3	0)	(4	-1	3)	3.655	1.638	2.23	77.1	72.7
[9	-12	-8]	(4	3	0)	(4	1	3)	3.655	1.638	2.23	70.4	81.2
[9	-12	19]	(4	3	0)	(-1	4	3)	3.655	1.631	2.24	81.2	69.7
[9	-12	13]	(4	3	0)	(1	4	3)	3.655	1.631	2.24	73.0	75.8
[3	-4	-4]	(4	3	0)	(8	7	-1)	3.655	1.631	2.24	18.5	76.9
[3	-4	11]	(4	3	0)	(7	8	1)	3.655	1.625	2.25	21.4	57.3
[6	-8	-27]	(4	3	0)	(9	0	2)	3.655	1.622	2.25	51.4	51.8
[9	-12	20]	(4	3	0)	(-4	2	3)	3.655	1.618	2.26	80.5	68.8
[9	-12	-4]	(4	3	0)	(4	2	3)	3.655	1.618	2.26	67.2	85.6
[6	-8	-31]	(4	3	0)	(9	-1	2)	3.655	1.615	2.26	55.5	47.9
[6	-8	-23]	(4	3	0)	(9	1	2)	3.655	1.615	2.26	47.4	56.2
[9	-12	22]	(4	3	0)	(-2	4	3)	3.655	1.613	2.27	85.2	66.9
[9	-12	-10]	(4	3	0)	(2	4	-3)	3.655	1.613	2.27	69.0	79.0
[3	-4	3]	(4	3	0)	(-9	-6	1)	3.655	1.612	2.27	18.1	80.1
[3	-4	-5]	(4	3	0)	(5	0	3)	3.655	1.589	2.30	70.2	73.8
[3	-4	-8]	(4	3	0)	(4	-3	3)	3.655	1.586	2.31	83.8	65.0
[3	-4	0]	(4	3	0)	(4	3	3)	3.655	1.586	2.31	64.3	90.0
[9	-12	-19]	(4	3	0)	(5	-1	3)	3.655	1.583	2.31	73.5	69.7
[9	-12	-11]	(4	3	0)	(5	1	3)	3.655	1.583	2.31	66.9	77.9
[6	-8	3]	(4	3	0)	(7	6	2)	3.655	1.583	2.31	37.0	85.0
[9	-12	25]	(4	3	0)	(-3	4	3)	3.655	1.583	2.31	89.2	64.1
[9	-12	-7]	(4	3	0)	(3	4	-3)	3.655	1.583	2.31	65.2	82.3
[6	-8	33]	(4	3	0)	(1	9	2)	3.655	1.583	2.31	56.3	46.1
[9	-12	20]	(4	3	0)	(0	5	3)	3.655	1.579	2.31	74.3	68.8
[3	-4	5]	(4	3	0)	(6	7	2)	3.655	1.578	2.32	38.5	73.8
[9	-12	23]	(4	3	0)	(-1	5	3)	3.655	1.574	2.32	78.3	65.9
[9	-12	17]	(4	3	0)	(1	5	3)	3.655	1.574	2.32	70.3	71.7
[3	-4	15]	(4	3	0)	(2	9	2)	3.655	1.566	2.33	52.0	48.8
[6	-8	-15]	(4	3	0)	(9	3	2)	3.655	1.565	2.34	40.3	66.4

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[9	-12	-23]	(4	3	0)	(5	-2	3)	3.655	1.565	2.34	76.9	65.9
[9	-12	-7]	(4	3	0)	(5	2	3)	3.655	1.565	2.34	63.8	82.3
[3	-4	-2]	(4	3	0)	(8	5	2)	3.655	1.565	2.34	36.6	83.4
[9	-12	26]	(4	3	0)	(-2	5	3)	3.655	1.557	2.35	82.3	63.2
[9	-12	14]	(4	3	0)	(2	5	3)	3.655	1.557	2.35	66.5	74.8
[6	-8	17]	(4	3	0)	(5	8	2)	3.655	1.550	2.36	40.9	63.6
[9	-12	-28]	(4	3	0)	(4	-4	3)	3.655	1.544	2.37	87.0	61.5
[9	-12	4]	(4	3	0)	(4	4	3)	3.655	1.544	2.37	61.6	85.6
[6	-8	27]	(4	3	0)	(3	9	2)	3.655	1.538	2.38	47.9	51.8
[3	-4	8]	(4	3	0)	(8	8	1)	3.655	1.538	2.38	18.8	65.0
[3	-4	-9]	(4	3	0)	(5	-3	3)	3.655	1.536	2.38	80.2	62.3
[3	-4	-1]	(4	3	0)	(5	3	3)	3.655	1.536	2.38	60.9	86.7
[3	-4	1]	(4	3	0)	(9	7	1)	3.655	1.533	2.38	16.9	86.7
[9	-12	29]	(4	3	0)	(-3	5	3)	3.655	1.530	2.39	86.2	60.6
[9	-12	-11]	(4	3	0)	(3	5	-3)	3.655	1.530	2.39	62.7	77.9
[6	-8	-11]	(4	3	0)	(9	4	2)	3.655	1.525	2.40	37.3	72.2
[9	-12	-22]	(4	3	0)	(6	-1	3)	3.655	1.523	2.40	70.2	66.9
[9	-12	-14]	(4	3	0)	(6	1	3)	3.655	1.523	2.40	63.7	74.8
[3	-4	-15]	(4	3	0)	(7	9	-1)	3.655	1.522	2.40	22.5	48.8
[3	-4	-9]	(4	3	0)	(1	-6	3)	3.655	1.511	2.42	75.8	62.3
[3	-4	7]	(4	3	0)	(1	6	3)	3.655	1.511	2.42	68.0	67.8
[6	-8	-7]	(4	3	0)	(7	7	-2)	3.655	1.508	2.42	35.7	78.5
[9	-12	26]	(4	3	0)	(6	-2	-3)	3.655	1.507	2.43	73.6	63.2
[9	-12	-10]	(4	3	0)	(6	2	3)	3.655	1.507	2.43	60.7	79.0
[9	-12	-31]	(4	3	0)	(5	-4	3)	3.655	1.498	2.44	83.4	58.9
[9	-12	1]	(4	3	0)	(5	4	3)	3.655	1.498	2.44	58.3	88.9
[3	-4	10]	(4	3	0)	(-2	6	3)	3.655	1.496	2.44	79.7	59.8
[3	-4	6]	(4	3	0)	(2	6	3)	3.655	1.496	2.44	64.2	70.7
[9	-12	32]	(4	3	0)	(-4	5	3)	3.655	1.495	2.45	90.0	58.1
[9	-12	8]	(4	3	0)	(4	5	3)	3.655	1.495	2.45	59.3	81.2
[6	-8	-7]	(4	3	0)	(9	5	2)	3.655	1.477	2.47	34.8	78.5
[9	-12	-25]	(4	3	0)	(7	-1	3)	3.655	1.460	2.50	67.3	64.1
[9	-12	-17]	(4	3	0)	(7	1	3)	3.655	1.460	2.50	60.9	71.7
[6	-8	21]	(4	3	0)	(5	9	2)	3.655	1.460	2.50	40.4	58.5
[3	-4	-5]	(4	3	0)	(9	8	-1)	3.655	1.455	2.51	16.7	73.8
[9	-12	35]	(4	3	0)	(-5	5	3)	3.655	1.453	2.52	86.5	55.8
[9	-12	5]	(4	3	0)	(5	5	3)	3.655	1.453	2.52	56.0	84.5
[3	-4	-12]	(4	3	0)	(8	9	-1)	3.655	1.450	2.52	19.6	55.0
[9	-12	-28]	(4	3	0)	(0	-7	3)	3.655	1.450	2.52	69.7	61.5
[9	-12	-34]	(4	3	0)	(6	-4	3)	3.655	1.446	2.53	80.1	56.6
[9	-12	2]	(4	3	0)	(6	4	-3)	3.655	1.446	2.53	55.3	87.8
[9	-12	29]	(4	3	0)	(-7	2	3)	3.655	1.446	2.53	70.5	60.6
[9	-12	-13]	(4	3	0)	(7	2	3)	3.655	1.446	2.53	57.9	75.8
[9	-12	31]	(4	3	0)	(-1	7	3)	3.655	1.445	2.53	73.5	58.9
[9	-12	25]	(4	3	0)	(1	7	3)	3.655	1.445	2.53	65.9	64.1
[3	-4	12]	(4	3	0)	(-4	6	3)	3.655	1.440	2.54	87.2	55.0
[3	-4	4]	(4	3	0)	(4	6	3)	3.655	1.440	2.54	57.2	76.9
[3	-4	-2]	(4	3	0)	(8	7	-2)	3.655	1.438	2.54	33.3	83.4

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Anthophyllite (430) 487 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[6	-8	11]	(4	3	0)	(7	8	2)	3.655	1.434	2.55	34.8	72.2
[9	-12	34]	(4	3	0)	(-2	7	3)	3.655	1.432	2.55	77.2	56.6
[9	-12	22]	(4	3	0)	(2	7	3)	3.655	1.432	2.55	62.3	66.9
[6	-8	-3]	(4	3	0)	(9	6	2)	3.655	1.425	2.57	32.8	85.0
[3	-4	-11]	(4	3	0)	(7	-3	3)	3.655	1.423	2.57	73.8	57.3
[3	-4	-3]	(4	3	0)	(7	3	3)	3.655	1.423	2.57	55.1	80.1
[3	-4	9]	(4	3	0)	(6	9	2)	3.655	1.412	2.59	37.2	62.3
[9	-12	37]	(4	3	0)	(-3	7	3)	3.655	1.411	2.59	81.0	54.3
[9	-12	19]	(4	3	0)	(3	7	3)	3.655	1.411	2.59	58.7	69.7
[9	-12	-38]	(4	3	0)	(6	-5	3)	3.655	1.406	2.60	83.1	53.6
[9	-12	2]	(4	3	0)	(6	5	3)	3.655	1.406	2.60	53.1	87.8
[3	-4	-13]	(4	3	0)	(5	-6	3)	3.655	1.403	2.61	89.3	52.8
[3	-4	3]	(4	3	0)	(5	6	3)	3.655	1.403	2.61	54.0	80.1
[3	-4	-8]	(4	3	0)	(8	0	3)	3.655	1.401	2.61	61.4	65.0
[9	-12	-28]	(4	3	0)	(8	-1	3)	3.655	1.396	2.62	64.6	61.5
[9	-12	-20]	(4	3	0)	(8	1	3)	3.655	1.396	2.62	58.3	68.8
[9	-12	-37]	(4	3	0)	(7	-4	3)	3.655	1.392	2.63	77.0	54.3
[9	-12	5]	(4	3	0)	(7	4	-3)	3.655	1.392	2.63	52.6	84.5
[9	-12	32]	(4	3	0)	(-8	2	3)	3.655	1.384	2.64	67.8	58.1
[9	-12	-16]	(4	3	0)	(8	2	3)	3.655	1.384	2.64	55.4	72.7
[9	-12	40]	(4	3	0)	(-4	7	3)	3.655	1.383	2.64	84.5	52.1
[3	-4	9]	(4	3	0)	(9	9	1)	3.655	1.380	2.65	17.2	62.3
[9	-12	35]	(4	3	0)	(-1	8	3)	3.655	1.379	2.65	71.4	55.8
[9	-12	29]	(4	3	0)	(1	8	3)	3.655	1.379	2.65	64.1	60.6
[6	-8	1]	(4	3	0)	(9	7	2)	3.655	1.370	2.67	31.3	88.3
[9	-12	38]	(4	3	0)	(-2	8	3)	3.655	1.368	2.67	75.1	53.6
[9	-12	26]	(4	3	0)	(2	8	3)	3.655	1.368	2.67	60.6	63.2
[3	-4	-12]	(4	3	0)	(8	-3	3)	3.655	1.363	2.68	71.0	55.0
[3	-4	-4]	(4	3	0)	(8	3	3)	3.655	1.363	2.68	52.7	76.9
[6	-8	-15]	(4	3	0)	(7	9	-2)	3.655	1.362	2.68	34.3	66.4
[9	-12	-1]	(4	3	0)	(7	5	3)	3.655	1.356	2.70	50.4	88.9
[9	-12	43]	(4	3	0)	(-5	7	3)	3.655	1.350	2.71	88.0	50.1
[9	-12	-13]	(4	3	0)	(5	7	-3)	3.655	1.350	2.71	52.3	75.8
[9	-12	-41]	(4	3	0)	(3	-8	3)	3.655	1.350	2.71	78.7	51.5
[9	-12	23]	(4	3	0)	(3	8	3)	3.655	1.350	2.71	57.1	65.9
[9	-12	-40]	(4	3	0)	(8	-4	3)	3.655	1.337	2.73	74.1	52.1
[9	-12	-8]	(4	3	0)	(8	4	3)	3.655	1.337	2.73	50.2	81.2
[9	-12	-31]	(4	3	0)	(9	-1	3)	3.655	1.333	2.74	62.2	58.9
[9	-12	-23]	(4	3	0)	(9	1	3)	3.655	1.333	2.74	56.1	65.9
[9	-12	44]	(4	3	0)	(-4	8	3)	3.655	1.325	2.76	82.2	49.5
[9	-12	20]	(4	3	0)	(4	8	3)	3.655	1.325	2.76	53.9	68.8
[9	-12	-35]	(4	3	0)	(9	-2	3)	3.655	1.322	2.76	65.3	55.8
[9	-12	-19]	(4	3	0)	(9	2	3)	3.655	1.322	2.76	53.2	69.7
[12	-16	-3]	(4	3	0)	(1	0	4)	3.655	1.317	2.78	86.8	87.5
[3	-4	-15]	(4	3	0)	(7	-6	3)	3.655	1.315	2.78	82.9	48.8
[3	-4	1]	(4	3	0)	(7	6	3)	3.655	1.315	2.78	48.5	86.7
[3	-4	13]	(4	3	0)	(-1	9	3)	3.655	1.315	2.78	69.6	52.8
[3	-4	11]	(4	3	0)	(1	9	3)	3.655	1.315	2.78	62.5	57.3

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U V W]	(h k 0)	(h k l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[6 -8 -5]	(4 3 0)	(9 8 -2)	3.655	1.313	2.78	30.2	81.7
[12 -16 7]	(4 3 0)	(-1 1 4)	3.655	1.313	2.78	89.4	84.2
[12 -16 1]	(4 3 0)	(1 1 4)	3.655	1.313	2.78	84.2	89.2
[9 -12 -46]	(4 3 0)	(6 -7 3)	3.655	1.312	2.79	88.7	48.2
[9 -12 10]	(4 3 0)	(6 7 3)	3.655	1.312	2.79	49.4	79.0
[3 -4 -6]	(4 3 0)	(8 9 -2)	3.655	1.309	2.79	31.7	70.7
[3 -4 -2]	(4 3 0)	(0 -2 4)	3.655	1.306	2.80	84.9	83.4
[3 -4 14]	(4 3 0)	(-2 9 3)	3.655	1.305	2.80	73.1	50.8
[3 -4 10]	(4 3 0)	(2 9 3)	3.655	1.305	2.80	59.1	59.8
[9 -12 -44]	(4 3 0)	(8 -5 3)	3.655	1.304	2.80	77.1	49.5
[9 -12 -4]	(4 3 0)	(8 5 3)	3.655	1.304	2.80	48.0	85.6
[6 -8 -5]	(4 3 0)	(2 -1 4)	3.655	1.303	2.80	86.2	81.7
[6 -8 -1]	(4 3 0)	(2 1 4)	3.655	1.303	2.80	81.0	88.3
[12 -16 11]	(4 3 0)	(-1 2 4)	3.655	1.303	2.81	88.1	80.9
[12 -16 5]	(4 3 0)	(1 2 4)	3.655	1.303	2.81	81.7	85.8
[9 -12 47]	(4 3 0)	(-5 8 3)	3.655	1.296	2.82	85.5	47.6
[9 -12 17]	(4 3 0)	(5 8 3)	3.655	1.296	2.82	50.8	71.7
[12 -16 -9]	(4 3 0)	(3 0 4)	3.655	1.291	2.83	80.5	82.5
[12 -16 -13]	(4 3 0)	(3 -1 4)	3.655	1.287	2.84	83.1	79.3
[12 -16 -5]	(4 3 0)	(3 1 4)	3.655	1.287	2.84	77.9	85.8
[12 -16 15]	(4 3 0)	(-1 3 4)	3.655	1.286	2.84	85.6	77.7
[12 -16 9]	(4 3 0)	(1 3 4)	3.655	1.286	2.84	79.2	82.5
[9 -12 43]	(4 3 0)	(9 -4 -3)	3.655	1.281	2.85	71.5	50.1
[9 -12 -11]	(4 3 0)	(9 4 3)	3.655	1.281	2.85	48.1	77.9
[12 -16 -17]	(4 3 0)	(3 -2 4)	3.655	1.278	2.86	85.6	76.1
[12 -16 -1]	(4 3 0)	(3 2 4)	3.655	1.278	2.86	75.5	89.2
[6 -8 9]	(4 3 0)	(-2 3 4)	3.655	1.277	2.86	88.7	75.3
[6 -8 3]	(4 3 0)	(2 3 4)	3.655	1.277	2.86	76.1	85.0
[9 -12 -49]	(4 3 0)	(7 -7 3)	3.655	1.271	2.88	85.7	46.4
[9 -12 -7]	(4 3 0)	(7 7 -3)	3.655	1.271	2.88	46.8	82.3
[3 -4 16]	(4 3 0)	(-4 9 3)	3.655	1.268	2.88	80.0	47.0
[3 -4 8]	(4 3 0)	(4 9 3)	3.655	1.268	2.88	52.6	65.0
[3 -4 -4]	(4 3 0)	(4 -1 4)	3.655	1.266	2.89	80.0	76.9
[3 -4 -2]	(4 3 0)	(4 1 4)	3.655	1.266	2.89	74.9	83.4
[9 -12 50]	(4 3 0)	(-6 8 3)	3.655	1.262	2.90	88.7	45.8
[9 -12 -14]	(4 3 0)	(6 8 -3)	3.655	1.262	2.90	48.0	74.8
[12 -16 21]	(4 3 0)	(3 -3 -4)	3.655	1.262	2.90	88.2	73.0
[12 -16 3]	(4 3 0)	(3 3 4)	3.655	1.262	2.90	73.1	87.5
[6 -8 9]	(4 3 0)	(9 9 2)	3.655	1.257	2.91	29.5	75.3
[9 -12 -7]	(4 3 0)	(9 5 3)	3.655	1.252	2.92	45.9	82.3
[12 -16 -15]	(4 3 0)	(5 0 4)	3.655	1.243	2.94	74.6	77.7
[3 -4 17]	(4 3 0)	(-5 9 3)	3.655	1.242	2.94	83.3	45.3
[3 -4 7]	(4 3 0)	(5 9 3)	3.655	1.242	2.94	49.6	67.8
[3 -4 -6]	(4 3 0)	(4 -3 4)	3.655	1.242	2.94	85.1	70.7
[3 -4 0]	(4 3 0)	(4 3 4)	3.655	1.242	2.94	70.1	90.0
[12 -16 -19]	(4 3 0)	(5 -1 4)	3.655	1.240	2.95	77.1	74.5
[12 -16 -11]	(4 3 0)	(5 1 4)	3.655	1.240	2.95	72.1	80.9
[12 -16 25]	(4 3 0)	(-3 4 4)	3.655	1.240	2.95	89.4	70.0

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U V W]	(h k 0)	(h k l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[12 -16 7]	(4 3 0)	(3 4 4)	3.655	1.240	2.95	70.8	84.2
[12 -16 23]	(4 3 0)	(-1 5 4)	3.655	1.236	2.96	80.9	71.5
[12 -16 17]	(4 3 0)	(1 5 4)	3.655	1.236	2.96	74.7	76.1
[12 -16 -23]	(4 3 0)	(5 -2 4)	3.655	1.231	2.97	79.7	71.5
[12 -16 -7]	(4 3 0)	(5 2 4)	3.655	1.231	2.97	69.7	84.2
[9 -12 -4]	(4 3 0)	(8 7 -3)	3.655	1.228	2.98	44.4	85.6
[6 -8 13]	(4 3 0)	(-2 5 4)	3.655	1.228	2.98	84.0	69.3
[6 -8 7]	(4 3 0)	(2 5 4)	3.655	1.228	2.98	71.6	78.5
[9 -12 11]	(4 3 0)	(7 8 3)	3.655	1.226	2.98	45.4	77.9
[12 -16 -27]	(4 3 0)	(5 -3 4)	3.655	1.217	3.00	82.2	68.5
[12 -16 -3]	(4 3 0)	(5 3 4)	3.655	1.217	3.00	67.4	87.5
[12 -16 29]	(4 3 0)	(-3 5 4)	3.655	1.214	3.01	87.0	67.1
[12 -16 11]	(4 3 0)	(3 5 4)	3.655	1.214	3.01	68.7	80.9
[6 -8 -11]	(4 3 0)	(6 -1 4)	3.655	1.211	3.02	74.4	72.2
[6 -8 -7]	(4 3 0)	(6 1 4)	3.655	1.211	3.02	69.4	78.5
[12 -16 27]	(4 3 0)	(-1 6 4)	3.655	1.205	3.03	78.7	68.5
[12 -16 21]	(4 3 0)	(1 6 4)	3.655	1.205	3.03	72.6	73.0
[12 -16 -31]	(4 3 0)	(5 -4 4)	3.655	1.198	3.05	84.7	65.7
[12 -16 1]	(4 3 0)	(5 4 4)	3.655	1.198	3.05	65.2	89.2
[3 -4 8]	(4 3 0)	(-4 5 4)	3.655	1.196	3.06	90.0	65.0
[3 -4 2]	(4 3 0)	(4 5 4)	3.655	1.196	3.06	65.8	83.4
[6 -8 -15]	(4 3 0)	(6 -3 4)	3.655	1.189	3.07	79.5	66.4
[6 -8 -3]	(4 3 0)	(6 3 4)	3.655	1.189	3.07	64.7	85.0
[9 -12 8]	(4 3 0)	(8 8 3)	3.655	1.187	3.08	43.0	81.2
[9 -12 1]	(4 3 0)	(9 7 3)	3.655	1.185	3.09	42.3	88.9
[12 -16 33]	(4 3 0)	(-3 6 4)	3.655	1.185	3.09	84.8	64.3
[12 -16 15]	(4 3 0)	(3 6 4)	3.655	1.185	3.09	66.7	77.7
[12 -16 -21]	(4 3 0)	(7 0 4)	3.655	1.181	3.10	69.3	73.0
[3 -4 -5]	(4 3 0)	(7 9 -3)	3.655	1.179	3.10	44.3	73.8
[12 -16 25]	(4 3 0)	(-7 1 4)	3.655	1.178	3.10	71.8	70.0
[12 -16 -17]	(4 3 0)	(7 1 4)	3.655	1.178	3.10	66.9	76.1
[12 -16 -35]	(4 3 0)	(5 -5 4)	3.655	1.174	3.11	87.1	63.0
[12 -16 5]	(4 3 0)	(5 5 4)	3.655	1.174	3.11	63.1	85.8
[12 -16 -29]	(4 3 0)	(7 -2 4)	3.655	1.171	3.12	74.3	67.1
[12 -16 -13]	(4 3 0)	(7 2 4)	3.655	1.171	3.12	64.5	79.3
[12 -16 31]	(4 3 0)	(-1 7 4)	3.655	1.171	3.12	76.7	65.7
[12 -16 25]	(4 3 0)	(1 7 4)	3.655	1.171	3.12	70.7	70.0
[6 -8 17]	(4 3 0)	(-2 7 4)	3.655	1.164	3.14	79.7	63.6
[6 -8 11]	(4 3 0)	(2 7 4)	3.655	1.164	3.14	67.8	72.2
[12 -16 -33]	(4 3 0)	(7 -3 4)	3.655	1.158	3.16	76.9	64.3
[12 -16 -9]	(4 3 0)	(7 3 4)	3.655	1.158	3.16	62.3	82.5
[12 -16 37]	(4 3 0)	(-3 7 4)	3.655	1.152	3.17	82.6	61.7
[12 -16 19]	(4 3 0)	(3 7 4)	3.655	1.152	3.17	64.9	74.5
[6 -8 -19]	(4 3 0)	(6 -5 4)	3.655	1.149	3.18	84.4	61.0
[6 -8 1]	(4 3 0)	(6 5 4)	3.655	1.149	3.18	60.6	88.3
[9 -12 -5]	(4 3 0)	(9 8 -3)	3.655	1.148	3.19	40.9	84.5
[12 -16 -39]	(4 3 0)	(5 -6 4)	3.655	1.148	3.19	89.5	60.4
[12 -16 9]	(4 3 0)	(5 6 4)	3.655	1.148	3.19	61.3	82.5

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-4	-4]	(4	3	0)	(8	9	-3)	3.655	1.145	3.19	41.9	76.9
[3	-4	7]	(4	3	0)	(-8	1	4)	3.655	1.144	3.20	69.4	67.8
[3	-4	-5]	(4	3	0)	(8	1	4)	3.655	1.144	3.20	64.5	73.8
[12	-16	-37]	(4	3	0)	(7	-4	4)	3.655	1.142	3.20	79.3	61.7
[12	-16	-5]	(4	3	0)	(7	4	4)	3.655	1.142	3.20	60.1	85.8
[3	-4	4]	(4	3	0)	(4	7	4)	3.655	1.137	3.22	62.2	76.9
[12	-16	29]	(4	3	0)	(1	8	4)	3.655	1.135	3.22	68.9	67.1
[3	-4	-9]	(4	3	0)	(8	-3	4)	3.655	1.126	3.25	74.4	62.3
[3	-4	-3]	(4	3	0)	(8	3	4)	3.655	1.126	3.25	60.0	80.1
[12	-16	41]	(4	3	0)	(7	-5	-4)	3.655	1.121	3.26	81.8	59.1
[12	-16	-1]	(4	3	0)	(7	5	4)	3.655	1.121	3.26	58.2	89.2
[12	-16	43]	(4	3	0)	(-5	7	4)	3.655	1.118	3.27	88.3	57.9
[12	-16	-13]	(4	3	0)	(5	7	-4)	3.655	1.118	3.27	59.6	79.3
[12	-16	-41]	(4	3	0)	(-3	8	-4)	3.655	1.118	3.27	80.6	59.1
[12	-16	23]	(4	3	0)	(3	8	4)	3.655	1.118	3.27	63.3	71.5
[12	-16	-27]	(4	3	0)	(9	0	4)	3.655	1.111	3.29	64.7	68.5
[12	-16	35]	(4	3	0)	(-9	2	4)	3.655	1.102	3.32	69.6	63.0
[12	-16	-19]	(4	3	0)	(9	2	4)	3.655	1.102	3.32	60.0	74.5
[12	-16	-45]	(4	3	0)	(7	-6	4)	3.655	1.098	3.33	84.1	56.7
[12	-16	3]	(4	3	0)	(7	6	4)	3.655	1.098	3.33	56.4	87.5
[12	-16	39]	(4	3	0)	(-1	9	4)	3.655	1.098	3.33	73.1	60.4
[12	-16	33]	(4	3	0)	(1	9	4)	3.655	1.098	3.33	67.4	64.3
[6	-8	-23]	(4	3	0)	(6	-7	4)	3.655	1.096	3.33	88.9	56.2
[6	-8	5]	(4	3	0)	(6	7	4)	3.655	1.096	3.33	57.1	81.7
[6	-8	21]	(4	3	0)	(-2	9	4)	3.655	1.092	3.35	75.9	58.5
[6	-8	15]	(4	3	0)	(2	9	4)	3.655	1.092	3.35	64.5	66.4
[12	-16	-39]	(4	3	0)	(9	-3	4)	3.655	1.092	3.35	72.1	60.4
[12	-16	-15]	(4	3	0)	(9	3	4)	3.655	1.092	3.35	57.9	77.7
[3	-4	-11]	(4	3	0)	(8	-5	4)	3.655	1.092	3.35	79.3	57.3
[3	-4	-1]	(4	3	0)	(8	5	4)	3.655	1.092	3.35	55.9	86.7
[12	-16	47]	(4	3	0)	(-5	8	4)	3.655	1.087	3.36	86.2	55.6
[12	-16	17]	(4	3	0)	(5	8	4)	3.655	1.087	3.36	58.0	76.1
[12	-16	45]	(4	3	0)	(-3	9	4)	3.655	1.083	3.38	78.8	56.7
[12	-16	27]	(4	3	0)	(3	9	4)	3.655	1.083	3.38	61.8	68.5
[12	-16	43]	(4	3	0)	(9	-4	-4)	3.655	1.078	3.39	74.5	57.9
[12	-16	-11]	(4	3	0)	(9	4	4)	3.655	1.078	3.39	55.8	80.9
[12	-16	-49]	(4	3	0)	(7	-7	4)	3.655	1.072	3.41	86.3	54.5
[12	-16	-7]	(4	3	0)	(7	7	-4)	3.655	1.072	3.41	54.7	84.2
[3	-4	12]	(4	3	0)	(-4	9	4)	3.655	1.070	3.42	81.6	55.0
[3	-4	6]	(4	3	0)	(4	9	4)	3.655	1.070	3.42	59.2	70.7
[12	-16	47]	(4	3	0)	(-9	5	4)	3.655	1.061	3.45	76.9	55.6
[12	-16	-7]	(4	3	0)	(9	5	4)	3.655	1.061	3.45	53.9	84.2
[15	-20	-3]	(4	3	0)	(1	0	5)	3.655	1.054	3.47	87.4	88.0
[12	-16	51]	(4	3	0)	(-5	9	4)	3.655	1.054	3.47	84.3	53.4
[12	-16	21]	(4	3	0)	(5	9	4)	3.655	1.054	3.47	56.6	73.0
[15	-20	4]	(4	3	0)	(0	1	5)	3.655	1.054	3.47	87.9	87.3
[15	-20	-7]	(4	3	0)	(1	-1	5)	3.655	1.052	3.47	89.5	85.3
[15	-20	1]	(4	3	0)	(1	1	5)	3.655	1.052	3.47	85.4	89.3

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Anthophyllite (430) 487 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U V W]	(h k 0)	(h k l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[15 -20 -6]	(4 3 0)	(2 0 5)	3.655	1.049	3.48	84.9	86.0
[3 -4 -2]	(4 3 0)	(2 -1 5)	3.655	1.047	3.49	86.9	83.4
[15 -20 -2]	(4 3 0)	(2 1 5)	3.655	1.047	3.49	82.8	88.7
[15 -20 11]	(4 3 0)	(-1 2 5)	3.655	1.047	3.49	88.5	82.7
[3 -4 1]	(4 3 0)	(1 2 5)	3.655	1.047	3.49	83.3	86.7
[3 -4 -13]	(4 3 0)	(8 -7 4)	3.655	1.046	3.49	83.9	52.8
[3 -4 -1]	(4 3 0)	(8 7 -4)	3.655	1.046	3.49	52.5	86.7
[12 -16 -53]	(4 3 0)	(7 -8 4)	3.655	1.044	3.50	88.5	52.3
[12 -16 11]	(4 3 0)	(7 8 4)	3.655	1.044	3.50	53.3	80.9
[15 -20 -14]	(4 3 0)	(2 -2 5)	3.655	1.042	3.51	89.0	80.7
[15 -20 2]	(4 3 0)	(2 2 5)	3.655	1.042	3.51	80.8	88.7
[12 -16 -51]	(4 3 0)	(9 -6 4)	3.655	1.041	3.51	79.3	53.4
[12 -16 -3]	(4 3 0)	(9 6 4)	3.655	1.041	3.51	52.1	87.5
[15 -20 -9]	(4 3 0)	(3 0 5)	3.655	1.041	3.51	82.3	84.0
[15 -20 12]	(4 3 0)	(0 3 5)	3.655	1.040	3.52	83.9	82.0
[15 -20 -13]	(4 3 0)	(3 -1 5)	3.655	1.039	3.52	84.4	81.4
[3 -4 -1]	(4 3 0)	(3 1 5)	3.655	1.039	3.52	80.3	86.7
[3 -4 3]	(4 3 0)	(-1 3 5)	3.655	1.038	3.52	86.4	80.1
[15 -20 9]	(4 3 0)	(1 3 5)	3.655	1.038	3.52	81.3	84.0
[6 -8 27]	(4 3 0)	(-6 9 4)	3.655	1.036	3.53	86.9	51.8
[6 -8 9]	(4 3 0)	(6 9 4)	3.655	1.036	3.53	54.2	75.3
[15 -20 -17]	(4 3 0)	(3 -2 5)	3.655	1.034	3.54	86.5	78.8
[15 -20 -1]	(4 3 0)	(3 2 5)	3.655	1.034	3.54	78.3	89.3
[15 -20 18]	(4 3 0)	(-2 3 5)	3.655	1.033	3.54	89.0	78.2
[15 -20 6]	(4 3 0)	(2 3 5)	3.655	1.033	3.54	78.8	86.0
[15 -20 -12]	(4 3 0)	(4 0 5)	3.655	1.030	3.55	79.9	82.0
[15 -20 -16]	(4 3 0)	(4 -1 5)	3.655	1.028	3.56	81.9	79.4
[15 -20 -8]	(4 3 0)	(4 1 5)	3.655	1.028	3.56	77.8	84.7
[15 -20 19]	(4 3 0)	(-1 4 5)	3.655	1.026	3.56	84.5	77.5
[15 -20 13]	(4 3 0)	(1 4 5)	3.655	1.026	3.56	79.4	81.4
[15 -20 -21]	(4 3 0)	(3 -3 5)	3.655	1.025	3.56	88.5	76.2
[15 -20 3]	(4 3 0)	(3 3 5)	3.655	1.025	3.56	76.3	88.0
[3 -4 -4]	(4 3 0)	(4 -2 5)	3.655	1.023	3.57	84.0	76.9
[15 -20 -4]	(4 3 0)	(4 2 5)	3.655	1.023	3.57	75.8	87.3
[15 -20 22]	(4 3 0)	(-2 4 5)	3.655	1.021	3.58	87.0	75.6
[3 -4 2]	(4 3 0)	(2 4 5)	3.655	1.021	3.58	76.9	83.4
[12 -16 1]	(4 3 0)	(9 7 4)	3.655	1.019	3.59	50.5	89.2
[12 -16 57]	(4 3 0)	(-7 9 4)	3.655	1.015	3.60	89.5	50.3
[12 -16 -15]	(4 3 0)	(7 9 -4)	3.655	1.015	3.60	51.9	77.7
[15 -20 -24]	(4 3 0)	(4 -3 5)	3.655	1.015	3.60	86.0	74.4
[3 -4 0]	(4 3 0)	(4 3 5)	3.655	1.015	3.60	73.9	90.0
[15 -20 -19]	(4 3 0)	(5 -1 5)	3.655	1.014	3.61	79.5	77.5
[15 -20 -11]	(4 3 0)	(5 1 5)	3.655	1.014	3.61	75.4	82.7
[3 -4 5]	(4 3 0)	(-3 4 5)	3.655	1.014	3.61	89.5	73.8
[15 -20 7]	(4 3 0)	(3 4 5)	3.655	1.014	3.61	74.4	85.3
[15 -20 23]	(4 3 0)	(-1 5 5)	3.655	1.011	3.61	82.5	75.0
[15 -20 17]	(4 3 0)	(1 5 5)	3.655	1.011	3.61	77.5	78.8
[15 -20 -23]	(4 3 0)	(5 -2 5)	3.655	1.009	3.62	81.6	75.0

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Anthophyllite (430) 487 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U V W]	(h k 0)	(h k l)	*d* (hk0)	*d* (hkl)	*d* Ratio	*θ*°	ZA^C°
[15 -20 -7]	(4 3 0)	(5 2 5)	3.655	1.009	3.62	73.5	85.3
[15 -20 26]	(4 3 0)	(-2 5 5)	3.655	1.007	3.63	85.1	73.1
[15 -20 14]	(4 3 0)	(2 5 5)	3.655	1.007	3.63	75.0	80.7
[15 -20 -28]	(4 3 0)	(4 -4 5)	3.655	1.003	3.64	88.0	71.9
[15 -20 4]	(4 3 0)	(4 4 5)	3.655	1.003	3.64	72.0	87.3
[15 -20 -27]	(4 3 0)	(5 -3 5)	3.655	1.001	3.65	83.6	72.5
[15 -20 -3]	(4 3 0)	(5 3 5)	3.655	1.001	3.65	71.5	88.0

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Anthophyllite (250) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[5	-2	-5]	(2	5	0)	(1	0	1)	3.339	5.077	0.66	84.3	75.1
[5	-2	2]	(2	5	0)	(0	1	1)	3.339	5.064	0.66	74.7	83.9
[5	-2	7]	(2	5	0)	(-1	1	1)	3.339	4.885	0.68	80.8	69.6
[5	-2	3]	(2	5	0)	(1	1	-1)	3.339	4.885	0.68	69.5	80.9
[5	-2	-10]	(2	5	0)	(2	0	1)	3.339	4.586	0.73	79.7	62.0
[5	-2	12]	(2	5	0)	(-2	1	1)	3.339	4.442	0.75	86.7	57.4
[5	-2	-8]	(2	5	0)	(2	1	1)	3.339	4.442	0.75	66.1	66.9
[5	-2	9]	(2	5	0)	(-1	2	1)	3.339	4.416	0.76	68.0	64.4
[5	-2	-1]	(2	5	0)	(1	2	1)	3.339	4.416	0.76	56.9	87.0
[5	-2	14]	(2	5	0)	(-2	2	1)	3.339	4.081	0.82	74.6	53.3
[5	-2	-6]	(2	5	0)	(2	2	1)	3.339	4.081	0.82	54.2	72.3
[5	-2	-15]	(2	5	0)	(3	0	1)	3.339	4.011	0.83	76.4	51.4
[5	-2	6]	(2	5	0)	(0	3	1)	3.339	3.954	0.84	51.8	72.3
[5	-2	-17]	(2	5	0)	(3	-1	1)	3.339	3.914	0.85	88.6	47.9
[5	-2	-13]	(2	5	0)	(3	1	1)	3.339	3.914	0.85	64.3	55.3
[5	-2	11]	(2	5	0)	(-1	3	1)	3.339	3.867	0.86	58.1	59.6
[5	-2	1]	(2	5	0)	(1	3	1)	3.339	3.867	0.86	47.2	87.0
[5	-2	-11]	(2	5	0)	(3	2	1)	3.339	3.660	0.91	53.4	59.6
[5	-2	16]	(2	5	0)	(-2	3	1)	3.339	3.636	0.92	64.8	49.6
[5	-2	-4]	(2	5	0)	(2	3	1)	3.339	3.636	0.92	44.8	78.0
[5	-2	-18]	(2	5	0)	(4	1	1)	3.339	3.415	0.98	63.6	46.2
[5	-2	13]	(2	5	0)	(-1	4	1)	3.339	3.357	0.99	50.6	55.3
[5	-2	3]	(2	5	0)	(1	4	1)	3.339	3.357	0.99	40.1	80.9
[5	-2	9]	(2	5	0)	(3	3	-1)	3.339	3.329	1.00	44.3	64.4
[5	-2	16]	(2	5	0)	(-4	-2	1)	3.339	3.243	1.03	53.8	49.6
[5	-2	18]	(2	5	0)	(-2	4	1)	3.339	3.203	1.04	57.1	46.2
[5	-2	-2]	(2	5	0)	(2	4	1)	3.339	3.203	1.04	37.6	83.9
[5	-2	-14]	(2	5	0)	(4	3	1)	3.339	3.005	1.11	45.2	53.3
[5	-2	-7]	(2	5	0)	(3	4	1)	3.339	2.987	1.12	37.1	69.6
[5	-2	10]	(2	5	0)	(0	5	1)	3.339	2.963	1.13	39.5	62.0
[5	-2	15]	(2	5	0)	(-1	5	1)	3.339	2.926	1.14	45.2	51.4
[5	-2	5]	(2	5	0)	(1	5	1)	3.339	2.926	1.14	35.0	75.1
[5	-2	0]	(2	5	0)	(2	5	-1)	3.339	2.822	1.18	32.3	90.0
[5	-2	-12]	(2	5	0)	(4	4	1)	3.339	2.747	1.22	38.1	57.4
[5	-2	-5]	(2	5	0)	(3	5	1)	3.339	2.671	1.25	31.6	75.1
[5	-2	0]	(2	5	0)	(0	0	2)	3.339	2.640	1.26	90.0	90.0
[10	-4	5]	(2	5	0)	(1	0	-2)	3.339	2.614	1.28	87.1	82.4
[10	-4	7]	(2	5	0)	(-1	1	2)	3.339	2.586	1.29	85.2	79.4
[10	-4	-3]	(2	5	0)	(1	1	2)	3.339	2.586	1.29	79.3	85.4
[5	-2	17]	(2	5	0)	(-1	6	1)	3.339	2.572	1.30	41.1	47.9
[5	-2	7]	(2	5	0)	(1	6	1)	3.339	2.572	1.30	31.3	69.6
[5	-2	6]	(2	5	0)	(-2	1	2)	3.339	2.513	1.33	88.1	72.3
[5	-2	-4]	(2	5	0)	(2	1	2)	3.339	2.513	1.33	76.8	78.0
[5	-2	-17]	(2	5	0)	(5	4	1)	3.339	2.509	1.33	39.9	47.9
[10	-4	9]	(2	5	0)	(-1	2	2)	3.339	2.509	1.33	77.7	76.5
[10	-4	-1]	(2	5	0)	(1	2	2)	3.339	2.509	1.33	71.9	88.5
[5	-2	2]	(2	5	0)	(2	6	1)	3.339	2.501	1.34	28.4	83.9
[5	-2	-10]	(2	5	0)	(4	5	1)	3.339	2.495	1.34	32.4	62.0

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Anthophyllite (250) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[10	-4	-15]	(2	5	0)	(3	0	2)	3.339	2.427	1.38	81.8	68.2
[10	-4	-17]	(2	5	0)	(3	-1	2)	3.339	2.405	1.39	89.1	65.7
[10	-4	-13]	(2	5	0)	(3	1	2)	3.339	2.405	1.39	74.6	70.9
[10	-4	11]	(2	5	0)	(-1	3	2)	3.339	2.394	1.39	70.9	73.7
[10	-4	1]	(2	5	0)	(1	3	2)	3.339	2.394	1.39	65.1	88.5
[5	-2	-3]	(2	5	0)	(3	6	1)	3.339	2.394	1.39	27.3	80.9
[10	-4	19]	(2	5	0)	(-3	2	2)	3.339	2.342	1.43	83.9	63.2
[10	-4	-11]	(2	5	0)	(3	2	2)	3.339	2.342	1.43	67.6	73.7
[5	-2	8]	(2	5	0)	(-2	3	2)	3.339	2.336	1.43	74.1	66.9
[5	-2	-2]	(2	5	0)	(2	3	2)	3.339	2.336	1.43	62.9	83.9
[5	-2	-15]	(2	5	0)	(5	5	1)	3.339	2.313	1.44	34.1	51.4
[5	-2	14]	(2	5	0)	(0	7	1)	3.339	2.301	1.45	32.9	53.3
[5	-2	-11]	(2	5	0)	(4	-1	2)	3.339	2.274	1.47	86.6	59.6
[5	-2	-9]	(2	5	0)	(4	1	2)	3.339	2.274	1.47	72.8	64.4
[5	-2	4]	(2	5	0)	(0	4	2)	3.339	2.274	1.47	61.7	78.0
[5	-2	-8]	(2	5	0)	(4	6	1)	3.339	2.265	1.47	27.8	66.9
[10	-4	13]	(2	5	0)	(-1	4	2)	3.339	2.257	1.48	64.8	70.9
[10	-4	3]	(2	5	0)	(1	4	2)	3.339	2.257	1.48	59.0	85.4
[10	-4	21]	(2	5	0)	(-3	3	2)	3.339	2.248	1.49	77.3	60.8
[10	-4	9]	(2	5	0)	(3	3	-2)	3.339	2.248	1.49	61.1	76.5
[5	-2	-4]	(2	5	0)	(-2	-7	1)	3.339	2.233	1.49	25.6	78.0
[10	-4	-25]	(2	5	0)	(5	0	2)	3.339	2.149	1.55	77.9	56.4
[5	-2	13]	(2	5	0)	(-4	3	2)	3.339	2.140	1.56	80.4	55.3
[5	-2	-7]	(2	5	0)	(4	3	2)	3.339	2.140	1.56	59.9	69.6
[10	-4	-27]	(2	5	0)	(5	-1	2)	3.339	2.134	1.56	84.4	54.3
[10	-4	-23]	(2	5	0)	(5	1	2)	3.339	2.134	1.56	71.4	58.5
[10	-4	-7]	(2	5	0)	(3	4	2)	3.339	2.133	1.56	55.3	79.4
[5	-2	-13]	(2	5	0)	(5	6	1)	3.339	2.126	1.57	29.3	55.3
[10	-4	15]	(2	5	0)	(-1	5	2)	3.339	2.111	1.58	59.4	68.2
[10	-4	5]	(2	5	0)	(1	5	2)	3.339	2.111	1.58	53.8	82.4
[10	-4	29]	(2	5	0)	(-5	2	2)	3.339	2.090	1.60	89.2	52.3
[10	-4	-21]	(2	5	0)	(5	2	2)	3.339	2.090	1.60	65.1	60.8
[5	-2	10]	(2	5	0)	(-2	5	2)	3.339	2.071	1.61	62.7	62.0
[5	-2	0]	(2	5	0)	(2	5	2)	3.339	2.071	1.61	51.7	90.0
[5	-2	-6]	(2	5	0)	(4	7	1)	3.339	2.060	1.62	24.2	72.3
[5	-2	11]	(2	5	0)	(1	8	1)	3.339	2.047	1.63	26.7	59.6
[10	-4	31]	(2	5	0)	(-5	3	2)	3.339	2.022	1.65	83.2	50.5
[10	-4	-19]	(2	5	0)	(5	3	2)	3.339	2.022	1.65	59.1	63.2
[5	-2	6]	(2	5	0)	(2	8	1)	3.339	2.011	1.66	23.6	72.3
[10	-4	25]	(2	5	0)	(-3	5	2)	3.339	2.009	1.66	66.1	56.4
[10	-4	-5]	(2	5	0)	(3	5	2)	3.339	2.009	1.66	50.1	82.4
[5	-2	-16]	(2	5	0)	(6	-1	2)	3.339	1.993	1.68	82.6	49.6
[5	-2	-14]	(2	5	0)	(6	1	2)	3.339	1.993	1.68	70.3	53.3
[5	-2	18]	(2	5	0)	(6	6	-1)	3.339	1.986	1.68	31.4	46.2
[10	-4	17]	(2	5	0)	(-1	6	2)	3.339	1.966	1.70	54.8	65.7
[10	-4	7]	(2	5	0)	(1	6	2)	3.339	1.966	1.70	49.2	79.4
[5	-2	-1]	(2	5	0)	(3	8	-1)	3.339	1.954	1.71	21.8	87.0
[10	-4	33]	(2	5	0)	(-5	4	2)	3.339	1.937	1.72	77.6	48.7

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Anthophyllite (250) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[10	-4	-17]	(2	5	0)	(5	4	2)	3.339	1.937	1.72	53.7	65.7
[5	-2	15]	(2	5	0)	(-4	5	2)	3.339	1.931	1.73	69.4	51.4
[5	-2	-5]	(2	5	0)	(4	5	2)	3.339	1.931	1.73	49.2	75.1
[5	-2	18]	(2	5	0)	(-6	3	2)	3.339	1.901	1.76	85.7	46.2
[5	-2	12]	(2	5	0)	(6	3	-2)	3.339	1.901	1.76	58.7	57.4
[10	-4	27]	(2	5	0)	(-3	6	2)	3.339	1.883	1.77	61.4	54.3
[10	-4	-3]	(2	5	0)	(3	6	2)	3.339	1.883	1.77	45.7	85.4
[5	-2	-4]	(2	5	0)	(4	8	1)	3.339	1.882	1.77	21.4	78.0
[10	-4	-35]	(2	5	0)	(7	0	2)	3.339	1.868	1.79	75.2	47.0
[5	-2	18]	(2	5	0)	(0	9	1)	3.339	1.861	1.79	29.2	46.2
[10	-4	-37]	(2	5	0)	(7	-1	2)	3.339	1.858	1.80	81.0	45.4
[10	-4	-33]	(2	5	0)	(7	1	2)	3.339	1.858	1.80	69.5	48.7
[5	-2	13]	(2	5	0)	(1	9	1)	3.339	1.852	1.80	25.2	55.3
[5	-2	16]	(2	5	0)	(6	7	-1)	3.339	1.844	1.81	27.3	49.6
[10	-4	-35]	(2	5	0)	(5	-5	2)	3.339	1.843	1.81	72.5	47.0
[10	-4	-15]	(2	5	0)	(5	5	2)	3.339	1.843	1.81	48.7	68.2
[10	-4	31]	(2	5	0)	(7	2	-2)	3.339	1.828	1.83	63.9	50.5
[10	-4	-19]	(2	5	0)	(-1	7	-2)	3.339	1.828	1.83	50.9	63.2
[10	-4	9]	(2	5	0)	(1	7	2)	3.339	1.828	1.83	45.4	76.5
[5	-2	8]	(2	5	0)	(2	9	1)	3.339	1.825	1.83	22.1	66.9
[5	-2	12]	(2	5	0)	(-2	7	2)	3.339	1.802	1.85	54.1	57.4
[5	-2	2]	(2	5	0)	(2	7	2)	3.339	1.802	1.85	43.3	83.9
[5	-2	-9]	(2	5	0)	(5	8	1)	3.339	1.800	1.85	22.2	64.4
[10	-4	-29]	(2	5	0)	(7	3	2)	3.339	1.782	1.87	58.5	52.3
[5	-2	-3]	(2	5	0)	(3	9	-1)	3.339	1.782	1.87	20.0	80.9
[10	-4	29]	(2	5	0)	(-3	7	2)	3.339	1.760	1.90	57.4	52.3
[10	-4	-1]	(2	5	0)	(3	7	2)	3.339	1.760	1.90	41.8	88.5
[15	-6	-5]	(2	5	0)	(1	0	3)	3.339	1.752	1.91	88.0	84.9
[15	-6	2]	(2	5	0)	(0	1	3)	3.339	1.752	1.91	84.8	88.0
[5	-2	-10]	(2	5	0)	(6	5	2)	3.339	1.750	1.91	48.7	62.0
[15	-6	7]	(2	5	0)	(-1	1	3)	3.339	1.744	1.91	86.7	82.9
[5	-2	-1]	(2	5	0)	(1	1	3)	3.339	1.744	1.91	82.8	87.0
[10	-4	37]	(2	5	0)	(-5	6	2)	3.339	1.744	1.91	68.0	45.4
[10	-4	-13]	(2	5	0)	(5	6	2)	3.339	1.744	1.91	44.3	70.9
[15	-6	-10]	(2	5	0)	(2	0	3)	3.339	1.729	1.93	86.1	79.9
[5	-2	-2]	(2	5	0)	(4	9	1)	3.339	1.727	1.93	19.2	83.9
[10	-4	27]	(2	5	0)	(7	4	-2)	3.339	1.724	1.94	53.5	54.3
[5	-2	-4]	(2	5	0)	(2	-1	3)	3.339	1.721	1.94	88.7	78.0
[15	-6	-8]	(2	5	0)	(2	1	3)	3.339	1.721	1.94	81.0	81.9
[5	-2	3]	(2	5	0)	(-1	2	3)	3.339	1.719	1.94	81.6	80.9
[15	-6	-1]	(2	5	0)	(1	2	3)	3.339	1.719	1.94	77.7	89.0
[5	-2	-14]	(2	5	0)	(6	8	1)	3.339	1.713	1.95	23.9	53.3
[5	-2	-3]	(2	5	0)	(4	7	2)	3.339	1.707	1.96	40.9	80.9
[5	-2	8]	(2	5	0)	(0	8	2)	3.339	1.707	1.96	44.6	66.9
[10	-4	21]	(2	5	0)	(-1	8	2)	3.339	1.700	1.96	47.5	60.8
[10	-4	11]	(2	5	0)	(1	8	2)	3.339	1.700	1.96	42.1	73.7
[15	-6	14]	(2	5	0)	(-2	2	3)	3.339	1.698	1.97	83.6	76.0
[5	-2	-2]	(2	5	0)	(2	2	3)	3.339	1.698	1.97	75.9	83.9

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Anthophyllite (250) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[15	-6	11]	(2	5	0)	(-1	3	3)	3.339	1.681	1.99	76.7	79.0
[15	-6	1]	(2	5	0)	(1	3	3)	3.339	1.681	1.99	72.8	89.0
[5	-2	-17]	(2	5	0)	(8	3	2)	3.339	1.670	2.00	58.6	47.9
[5	-2	-7]	(2	5	0)	(5	9	1)	3.339	1.663	2.01	19.6	69.6
[15	-6	16]	(2	5	0)	(-2	3	3)	3.339	1.661	2.01	78.8	74.2
[15	-6	-4]	(2	5	0)	(2	3	3)	3.339	1.661	2.01	71.1	85.9
[10	-4	25]	(2	5	0)	(7	5	-2)	3.339	1.656	2.02	48.9	56.4
[10	-4	-11]	(2	5	0)	(5	7	2)	3.339	1.645	2.03	40.5	73.7
[10	-4	31]	(2	5	0)	(-3	8	2)	3.339	1.645	2.03	53.9	50.5
[10	-4	-1]	(2	5	0)	(3	8	-2)	3.339	1.645	2.03	38.6	88.5
[15	-6	20]	(2	5	0)	(-4	0	3)	3.339	1.645	2.03	82.6	70.5
[15	-6	-22]	(2	5	0)	(4	-1	3)	3.339	1.638	2.04	87.6	68.7
[5	-2	6]	(2	5	0)	(4	1	-3)	3.339	1.638	2.04	77.7	72.3
[15	-6	13]	(2	5	0)	(-1	4	3)	3.339	1.631	2.05	72.1	77.0
[5	-2	1]	(2	5	0)	(1	4	3)	3.339	1.631	2.05	68.2	87.0
[15	-6	16]	(2	5	0)	(4	2	-3)	3.339	1.618	2.06	72.9	74.2
[5	-2	6]	(2	5	0)	(-2	4	3)	3.339	1.613	2.07	74.1	72.3
[15	-6	-2]	(2	5	0)	(2	4	3)	3.339	1.613	2.07	66.5	88.0
[5	-2	-12]	(2	5	0)	(6	9	1)	3.339	1.593	2.10	21.0	57.4
[15	-6	-25]	(2	5	0)	(5	0	3)	3.339	1.589	2.10	81.1	66.1
[15	-6	26]	(2	5	0)	(-4	3	3)	3.339	1.586	2.11	82.9	65.2
[15	-6	-14]	(2	5	0)	(4	3	3)	3.339	1.586	2.11	68.2	76.0
[5	-2	-9]	(2	5	0)	(5	-1	3)	3.339	1.583	2.11	85.9	64.4
[15	-6	-23]	(2	5	0)	(5	1	3)	3.339	1.583	2.11	76.3	67.8
[10	-4	-23]	(2	5	0)	(7	6	2)	3.339	1.583	2.11	44.7	58.5
[15	-6	-7]	(2	5	0)	(3	4	3)	3.339	1.583	2.11	65.0	82.9
[10	-4	23]	(2	5	0)	(-1	9	2)	3.339	1.583	2.11	44.7	58.5
[10	-4	13]	(2	5	0)	(1	9	2)	3.339	1.583	2.11	39.4	70.9
[15	-6	10]	(2	5	0)	(0	5	3)	3.339	1.579	2.11	65.7	79.9
[5	-2	8]	(2	5	0)	(6	7	-2)	3.339	1.578	2.12	40.5	66.9
[5	-2	5]	(2	5	0)	(-1	5	3)	3.339	1.574	2.12	67.7	75.1
[15	-6	5]	(2	5	0)	(1	5	3)	3.339	1.574	2.12	63.9	84.9
[5	-2	14]	(2	5	0)	(-2	9	2)	3.339	1.566	2.13	47.7	53.3
[5	-2	4]	(2	5	0)	(2	9	2)	3.339	1.566	2.13	37.3	78.0
[15	-6	29]	(2	5	0)	(-5	2	3)	3.339	1.565	2.13	89.4	62.8
[5	-2	7]	(2	5	0)	(5	2	-3)	3.339	1.565	2.13	71.6	69.6
[5	-2	15]	(2	5	0)	(-8	-5	2)	3.339	1.565	2.13	49.3	51.4
[15	-6	20]	(2	5	0)	(-2	5	3)	3.339	1.557	2.14	69.8	70.5
[5	-2	0]	(2	5	0)	(2	5	3)	3.339	1.557	2.14	62.2	90.0
[10	-4	-9]	(2	5	0)	(5	8	2)	3.339	1.550	2.15	37.1	76.5
[15	-6	28]	(2	5	0)	(-4	4	3)	3.339	1.544	2.16	78.4	63.6
[5	-2	-4]	(2	5	0)	(4	4	3)	3.339	1.544	2.16	63.8	78.0
[10	-4	33]	(2	5	0)	(-3	9	2)	3.339	1.538	2.17	50.9	48.7
[10	-4	-3]	(2	5	0)	(3	9	-2)	3.339	1.538	2.17	35.8	85.4
[15	-6	-31]	(2	5	0)	(5	-3	3)	3.339	1.536	2.17	84.8	61.2
[15	-6	-19]	(2	5	0)	(5	3	3)	3.339	1.536	2.17	67.1	71.4
[15	-6	25]	(2	5	0)	(-3	5	3)	3.339	1.530	2.18	72.0	66.1
[15	-6	-5]	(2	5	0)	(3	5	3)	3.339	1.530	2.18	60.8	84.9

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Anthophyllite (250) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[10	-4	-37]	(2	5	0)	(9	4	2)	3.339	1.525	2.19	54.2	45.4
[15	-6	-32]	(2	5	0)	(6	-1	3)	3.339	1.523	2.19	84.3	60.4
[15	-6	-28]	(2	5	0)	(6	1	3)	3.339	1.523	2.19	75.1	63.6
[5	-2	-17]	(2	5	0)	(7	9	1)	3.339	1.522	2.19	22.9	47.9
[15	-6	17]	(2	5	0)	(-1	6	3)	3.339	1.511	2.21	63.7	73.2
[15	-6	7]	(2	5	0)	(1	6	3)	3.339	1.511	2.21	59.9	82.9
[10	-4	-21]	(2	5	0)	(7	7	2)	3.339	1.508	2.21	40.9	60.8
[15	-6	-34]	(2	5	0)	(6	-2	3)	3.339	1.507	2.22	88.9	58.9
[15	-6	-26]	(2	5	0)	(6	2	3)	3.339	1.507	2.22	70.5	65.2
[5	-2	11]	(2	5	0)	(-5	4	3)	3.339	1.498	2.23	80.4	59.6
[15	-6	-17]	(2	5	0)	(5	4	3)	3.339	1.498	2.23	62.7	73.2
[15	-6	22]	(2	5	0)	(-2	6	3)	3.339	1.496	2.23	65.8	68.7
[15	-6	2]	(2	5	0)	(2	6	3)	3.339	1.496	2.23	58.3	88.0
[5	-2	10]	(2	5	0)	(-4	5	3)	3.339	1.495	2.23	74.2	62.0
[15	-6	-10]	(2	5	0)	(4	5	3)	3.339	1.495	2.23	59.6	79.9
[10	-4	35]	(2	5	0)	(9	5	-2)	3.339	1.477	2.26	49.9	47.0
[15	-6	35]	(2	5	0)	(7	0	-3)	3.339	1.465	2.28	78.5	58.2
[15	-6	-37]	(2	5	0)	(7	-1	3)	3.339	1.460	2.29	82.9	56.7
[5	-2	-11]	(2	5	0)	(7	1	3)	3.339	1.460	2.29	74.0	59.6
[10	-4	-7]	(2	5	0)	(5	9	2)	3.339	1.460	2.29	34.2	79.4
[15	-6	35]	(2	5	0)	(-5	5	3)	3.339	1.453	2.30	76.3	58.2
[5	-2	-5]	(2	5	0)	(5	5	3)	3.339	1.453	2.30	58.7	75.1
[15	-6	14]	(2	5	0)	(0	7	3)	3.339	1.450	2.30	58.1	76.0
[15	-6	38]	(2	5	0)	(-6	4	3)	3.339	1.446	2.31	82.4	56.0
[15	-6	-22]	(2	5	0)	(6	4	3)	3.339	1.446	2.31	61.9	68.7
[5	-2	-13]	(2	5	0)	(7	-2	3)	3.339	1.446	2.31	87.3	55.3
[15	-6	31]	(2	5	0)	(7	2	-3)	3.339	1.446	2.31	69.6	61.2
[15	-6	19]	(2	5	0)	(-1	7	3)	3.339	1.445	2.31	60.1	71.4
[5	-2	3]	(2	5	0)	(1	7	3)	3.339	1.445	2.31	56.3	80.9
[15	-6	32]	(2	5	0)	(-4	6	3)	3.339	1.440	2.32	70.3	60.4
[15	-6	-8]	(2	5	0)	(4	6	3)	3.339	1.440	2.32	55.8	81.9
[5	-2	-13]	(2	5	0)	(8	7	2)	3.339	1.438	2.32	41.5	55.3
[10	-4	-19]	(2	5	0)	(7	8	2)	3.339	1.434	2.33	37.5	63.2
[5	-2	8]	(2	5	0)	(-2	7	3)	3.339	1.432	2.33	62.2	66.9
[15	-6	4]	(2	5	0)	(2	7	3)	3.339	1.432	2.33	54.7	85.9
[10	-4	-33]	(2	5	0)	(9	6	2)	3.339	1.425	2.34	45.9	48.7
[15	-6	41]	(2	5	0)	(-7	3	3)	3.339	1.423	2.35	88.4	54.0
[15	-6	-29]	(2	5	0)	(7	3	3)	3.339	1.423	2.35	65.4	62.8
[5	-2	-6]	(2	5	0)	(6	9	2)	3.339	1.412	2.36	34.2	72.3
[15	-6	29]	(2	5	0)	(-3	7	3)	3.339	1.411	2.37	64.4	62.8
[15	-6	-1]	(2	5	0)	(3	7	3)	3.339	1.411	2.37	53.3	89.0
[15	-6	40]	(2	5	0)	(-6	5	3)	3.339	1.406	2.38	78.4	54.6
[15	-6	-20]	(2	5	0)	(6	5	3)	3.339	1.406	2.38	57.9	70.5
[15	-6	37]	(2	5	0)	(-5	6	3)	3.339	1.403	2.38	72.4	56.7
[15	-6	-13]	(2	5	0)	(5	6	3)	3.339	1.403	2.38	54.9	77.0
[15	-6	-40]	(2	5	0)	(8	0	3)	3.339	1.401	2.38	77.4	54.6
[5	-2	-14]	(2	5	0)	(8	-1	3)	3.339	1.396	2.39	81.7	53.3
[15	-6	-38]	(2	5	0)	(8	1	3)	3.339	1.396	2.39	73.1	56.0

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Anthophyllite (250) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[15	-6	43]	(2	5	0)	(-7	4	3)	3.339	1.392	2.40	84.3	52.7
[5	-2	-9]	(2	5	0)	(7	4	3)	3.339	1.392	2.40	61.3	64.4
[15	-6	-44]	(2	5	0)	(8	-2	3)	3.339	1.384	2.41	85.9	52.0
[5	-2	-12]	(2	5	0)	(8	2	3)	3.339	1.384	2.41	68.9	57.4
[15	-6	34]	(2	5	0)	(-4	7	3)	3.339	1.383	2.41	66.6	58.9
[5	-2	-2]	(2	5	0)	(4	7	3)	3.339	1.383	2.41	52.2	83.9
[5	-2	7]	(2	5	0)	(-1	8	3)	3.339	1.379	2.42	56.8	69.6
[15	-6	11]	(2	5	0)	(1	8	3)	3.339	1.379	2.42	53.0	79.0
[10	-4	-31]	(2	5	0)	(9	7	2)	3.339	1.370	2.44	42.3	50.5
[15	-6	26]	(2	5	0)	(-2	8	3)	3.339	1.368	2.44	58.9	65.2
[5	-2	2]	(2	5	0)	(2	8	3)	3.339	1.368	2.44	51.4	83.9
[15	-6	46]	(2	5	0)	(-8	3	3)	3.339	1.363	2.45	90.0	50.8
[15	-6	-34]	(2	5	0)	(8	3	3)	3.339	1.363	2.45	64.8	58.9
[10	-4	-17]	(2	5	0)	(7	9	2)	3.339	1.362	2.45	34.5	65.7
[5	-2	-13]	(2	5	0)	(-5	7	-3)	3.339	1.350	2.47	68.9	55.3
[15	-6	-11]	(2	5	0)	(5	7	3)	3.339	1.350	2.47	51.4	79.0
[15	-6	31]	(2	5	0)	(-3	8	3)	3.339	1.350	2.47	61.1	61.2
[15	-6	-1]	(2	5	0)	(3	8	-3)	3.339	1.350	2.47	50.1	89.0
[5	-2	16]	(2	5	0)	(-8	4	3)	3.339	1.337	2.50	86.0	49.6
[15	-6	32]	(2	5	0)	(8	4	-3)	3.339	1.337	2.50	60.8	60.4
[15	-6	47]	(2	5	0)	(-9	1	3)	3.339	1.333	2.50	80.5	50.2
[15	-6	-43]	(2	5	0)	(9	1	3)	3.339	1.333	2.50	72.3	52.7
[5	-2	12]	(2	5	0)	(-4	8	3)	3.339	1.325	2.52	63.3	57.4
[15	-6	-4]	(2	5	0)	(4	8	3)	3.339	1.325	2.52	49.0	85.9
[15	-6	-49]	(2	5	0)	(9	-2	3)	3.339	1.322	2.53	84.6	49.0
[15	-6	-41]	(2	5	0)	(9	2	3)	3.339	1.322	2.53	68.3	54.0
[20	-8	-5]	(2	5	0)	(1	0	4)	3.339	1.317	2.54	88.5	86.2
[15	-6	47]	(2	5	0)	(-7	6	3)	3.339	1.315	2.54	76.6	50.2
[15	-6	-23]	(2	5	0)	(7	6	3)	3.339	1.315	2.54	53.8	67.8
[15	-6	13]	(2	5	0)	(1	9	3)	3.339	1.315	2.54	50.1	77.0
[10	-4	29]	(2	5	0)	(9	8	-2)	3.339	1.313	2.54	38.9	52.3
[20	-8	7]	(2	5	0)	(-1	1	4)	3.339	1.313	2.54	87.5	84.7
[20	-8	-3]	(2	5	0)	(1	1	4)	3.339	1.313	2.54	84.6	87.7
[15	-6	44]	(2	5	0)	(-6	7	3)	3.339	1.312	2.54	71.0	52.0
[15	-6	16]	(2	5	0)	(6	7	-3)	3.339	1.312	2.54	50.8	74.2
[5	-2	11]	(2	5	0)	(-8	-9	2)	3.339	1.309	2.55	35.1	59.6
[5	-2	1]	(2	5	0)	(0	2	4)	3.339	1.306	2.56	82.2	87.0
[15	-6	28]	(2	5	0)	(-2	9	3)	3.339	1.305	2.56	55.9	63.6
[15	-6	8]	(2	5	0)	(2	9	3)	3.339	1.305	2.56	48.5	81.9
[15	-6	50]	(2	5	0)	(-8	5	3)	3.339	1.304	2.56	82.2	48.4
[5	-2	10]	(2	5	0)	(8	5	-3)	3.339	1.304	2.56	57.1	62.0
[5	-2	-3]	(2	5	0)	(-2	1	-4)	3.339	1.303	2.56	89.0	80.9
[5	-2	-2]	(2	5	0)	(2	1	4)	3.339	1.303	2.56	83.2	83.9
[20	-8	9]	(2	5	0)	(-1	2	4)	3.339	1.303	2.56	83.7	83.2
[20	-8	-1]	(2	5	0)	(1	2	4)	3.339	1.303	2.56	80.7	89.2
[15	-6	41]	(2	5	0)	(-5	8	3)	3.339	1.296	2.58	65.6	54.0
[5	-2	-3]	(2	5	0)	(5	8	3)	3.339	1.296	2.58	48.2	80.9
[20	-8	-15]	(2	5	0)	(3	0	4)	3.339	1.291	2.59	85.7	78.7

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Anthophyllite (250) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[20	-8	-17]	(2	5	0)	(3	-1	4)	3.339	1.287	2.59	89.5	77.3
[20	-8	-13]	(2	5	0)	(3	1	4)	3.339	1.287	2.59	81.8	80.2
[20	-8	11]	(2	5	0)	(-1	3	4)	3.339	1.286	2.60	79.9	81.7
[20	-8	1]	(2	5	0)	(1	3	4)	3.339	1.286	2.60	76.9	89.2
[15	-6	53]	(2	5	0)	(-9	4	3)	3.339	1.281	2.61	87.6	46.8
[15	-6	-37]	(2	5	0)	(9	4	3)	3.339	1.281	2.61	60.5	56.7
[20	-8	19]	(2	5	0)	(-3	2	4)	3.339	1.278	2.61	86.7	75.8
[20	-8	-11]	(2	5	0)	(3	2	4)	3.339	1.278	2.61	78.0	81.7
[5	-2	4]	(2	5	0)	(-2	3	4)	3.339	1.277	2.62	81.4	78.0
[5	-2	-1]	(2	5	0)	(2	3	4)	3.339	1.277	2.62	75.6	87.0
[15	-6	49]	(2	5	0)	(-7	7	3)	3.339	1.271	2.63	73.1	49.0
[5	-2	-7]	(2	5	0)	(7	7	3)	3.339	1.271	2.63	50.4	69.6
[15	-6	38]	(2	5	0)	(-4	9	3)	3.339	1.268	2.63	60.3	56.0
[15	-6	-2]	(2	5	0)	(4	9	3)	3.339	1.268	2.63	46.1	88.0
[10	-4	-11]	(2	5	0)	(4	-1	4)	3.339	1.266	2.64	88.1	73.7
[10	-4	-9]	(2	5	0)	(4	1	4)	3.339	1.266	2.64	80.5	76.5
[20	-8	3]	(2	5	0)	(1	4	4)	3.339	1.263	2.64	73.3	87.7
[15	-6	46]	(2	5	0)	(-6	8	3)	3.339	1.262	2.65	67.8	50.8
[15	-6	-14]	(2	5	0)	(6	8	3)	3.339	1.262	2.65	47.6	76.0
[20	-8	21]	(2	5	0)	(-3	3	4)	3.339	1.262	2.65	82.9	74.4
[20	-8	-9]	(2	5	0)	(3	3	4)	3.339	1.262	2.65	74.3	83.2
[10	-4	27]	(2	5	0)	(9	9	-2)	3.339	1.257	2.66	35.9	54.3
[15	-6	-55]	(2	5	0)	(-9	5	-3)	3.339	1.252	2.67	83.9	45.7
[15	-6	35]	(2	5	0)	(9	5	-3)	3.339	1.252	2.67	56.9	58.2
[20	-8	-25]	(2	5	0)	(5	0	4)	3.339	1.243	2.69	83.0	71.6
[15	-6	43]	(2	5	0)	(-5	9	3)	3.339	1.242	2.69	62.5	52.7
[15	-6	-7]	(2	5	0)	(5	9	3)	3.339	1.242	2.69	45.3	82.9
[10	-4	13]	(2	5	0)	(-4	3	4)	3.339	1.242	2.69	84.4	70.9
[10	-4	-7]	(2	5	0)	(4	3	4)	3.339	1.242	2.69	73.1	79.4
[20	-8	-27]	(2	5	0)	(5	-1	4)	3.339	1.240	2.69	86.8	70.2
[20	-8	-23]	(2	5	0)	(5	1	4)	3.339	1.240	2.69	79.3	73.0
[20	-8	-7]	(2	5	0)	(3	4	4)	3.339	1.240	2.69	70.7	84.7
[20	-8	15]	(2	5	0)	(-1	5	4)	3.339	1.236	2.70	72.7	78.7
[20	-8	5]	(2	5	0)	(1	5	4)	3.339	1.236	2.70	69.8	86.2
[20	-8	29]	(2	5	0)	(-5	2	4)	3.339	1.231	2.71	89.5	68.9
[20	-8	-21]	(2	5	0)	(5	2	4)	3.339	1.231	2.71	75.6	74.4
[5	-2	18]	(2	5	0)	(-8	7	3)	3.339	1.228	2.72	75.2	46.2
[15	-6	-26]	(2	5	0)	(8	7	3)	3.339	1.228	2.72	50.2	65.2
[5	-2	5]	(2	5	0)	(-2	5	4)	3.339	1.228	2.72	74.2	75.1
[5	-2	0]	(2	5	0)	(2	5	4)	3.339	1.228	2.72	68.4	90.0
[5	-2	-17]	(2	5	0)	(-7	8	-3)	3.339	1.226	2.72	69.9	47.9
[15	-6	19]	(2	5	0)	(-7	-8	3)	3.339	1.226	2.72	47.3	71.4
[20	-8	31]	(2	5	0)	(-5	3	4)	3.339	1.217	2.74	85.9	67.6
[20	-8	-19]	(2	5	0)	(5	3	4)	3.339	1.217	2.74	72.0	75.8
[20	-8	25]	(2	5	0)	(-3	5	4)	3.339	1.214	2.75	75.8	71.6
[20	-8	-5]	(2	5	0)	(3	5	4)	3.339	1.214	2.75	67.2	86.2
[5	-2	-8]	(2	5	0)	(6	-1	4)	3.339	1.211	2.76	85.5	66.9
[5	-2	-7]	(2	5	0)	(6	1	4)	3.339	1.211	2.76	78.2	69.6

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Anthophyllite (250) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[20	-8	17]	(2	5	0)	(-1	6	4)	3.339	1.205	2.77	69.3	77.3
[20	-8	7]	(2	5	0)	(1	6	4)	3.339	1.205	2.77	66.4	84.7
[20	-8	33]	(2	5	0)	(-5	4	4)	3.339	1.198	2.79	82.4	66.3
[20	-8	-17]	(2	5	0)	(5	4	4)	3.339	1.198	2.79	68.5	77.3
[10	-4	15]	(2	5	0)	(-4	5	4)	3.339	1.196	2.79	77.4	68.2
[10	-4	-5]	(2	5	0)	(4	5	4)	3.339	1.196	2.79	66.1	82.4
[5	-2	9]	(2	5	0)	(-6	3	4)	3.339	1.189	2.81	87.3	64.4
[5	-2	-6]	(2	5	0)	(6	3	4)	3.339	1.189	2.81	71.0	72.3
[15	-6	56]	(2	5	0)	(-8	8	3)	3.339	1.187	2.81	72.0	45.2
[5	-2	-8]	(2	5	0)	(8	8	3)	3.339	1.187	2.81	47.1	66.9
[15	-6	-31]	(2	5	0)	(9	7	3)	3.339	1.185	2.82	50.2	61.2
[20	-8	27]	(2	5	0)	(-3	6	4)	3.339	1.185	2.82	72.5	70.2
[20	-8	-3]	(2	5	0)	(3	6	4)	3.339	1.185	2.82	63.9	87.7
[20	-8	-35]	(2	5	0)	(7	0	4)	3.339	1.181	2.83	80.7	65.0
[15	-6	53]	(2	5	0)	(-7	9	3)	3.339	1.179	2.83	66.9	46.8
[15	-6	-17]	(2	5	0)	(7	9	3)	3.339	1.179	2.83	44.4	73.2
[20	-8	-37]	(2	5	0)	(7	-1	4)	3.339	1.178	2.83	84.3	63.8
[20	-8	-33]	(2	5	0)	(7	1	4)	3.339	1.178	2.83	77.2	66.3
[20	-8	-35]	(2	5	0)	(-5	5	-4)	3.339	1.174	2.84	79.0	65.0
[20	-8	15]	(2	5	0)	(-5	-5	4)	3.339	1.174	2.84	65.1	78.7
[20	-8	-39]	(2	5	0)	(7	-2	4)	3.339	1.171	2.85	87.8	62.6
[20	-8	-31]	(2	5	0)	(7	2	4)	3.339	1.171	2.85	73.6	67.6
[20	-8	19]	(2	5	0)	(-1	7	4)	3.339	1.171	2.85	66.2	75.8
[20	-8	9]	(2	5	0)	(1	7	4)	3.339	1.171	2.85	63.3	83.2
[5	-2	-6]	(2	5	0)	(-2	7	-4)	3.339	1.164	2.87	67.7	72.3
[5	-2	1]	(2	5	0)	(2	7	4)	3.339	1.164	2.87	62.0	87.0
[20	-8	41]	(2	5	0)	(-7	3	4)	3.339	1.158	2.88	88.7	61.4
[20	-8	-29]	(2	5	0)	(7	3	4)	3.339	1.158	2.88	70.2	68.9
[20	-8	29]	(2	5	0)	(-3	7	4)	3.339	1.152	2.90	69.3	68.9
[20	-8	-1]	(2	5	0)	(3	7	4)	3.339	1.152	2.90	60.8	89.2
[5	-2	10]	(2	5	0)	(-6	5	4)	3.339	1.149	2.91	80.5	62.0
[5	-2	-5]	(2	5	0)	(6	5	4)	3.339	1.149	2.91	64.3	75.1
[15	-6	29]	(2	5	0)	(9	8	-3)	3.339	1.148	2.91	47.2	62.8
[20	-8	37]	(2	5	0)	(-5	6	4)	3.339	1.148	2.91	75.7	63.8
[20	-8	-13]	(2	5	0)	(5	6	4)	3.339	1.148	2.91	61.9	80.2
[15	-6	-22]	(2	5	0)	(8	9	3)	3.339	1.145	2.92	44.3	68.7
[10	-4	-21]	(2	5	0)	(8	-1	4)	3.339	1.144	2.92	83.2	60.8
[10	-4	-19]	(2	5	0)	(8	1	4)	3.339	1.144	2.92	76.2	63.2
[20	-8	43]	(2	5	0)	(-7	4	4)	3.339	1.142	2.92	85.3	60.2
[20	-8	-27]	(2	5	0)	(7	4	4)	3.339	1.142	2.92	66.8	70.2
[10	-4	17]	(2	5	0)	(-4	7	4)	3.339	1.137	2.94	71.0	65.7
[10	-4	-3]	(2	5	0)	(4	7	4)	3.339	1.137	2.94	59.8	85.4
[20	-8	11]	(2	5	0)	(1	8	4)	3.339	1.135	2.94	60.3	81.7
[10	-4	23]	(2	5	0)	(-8	3	4)	3.339	1.126	2.97	90.0	58.5
[10	-4	-17]	(2	5	0)	(8	3	4)	3.339	1.126	2.97	69.4	65.7
[20	-8	-45]	(2	5	0)	(7	-5	4)	3.339	1.121	2.98	82.0	59.1
[20	-8	-25]	(2	5	0)	(7	5	4)	3.339	1.121	2.98	63.6	71.6
[20	-8	39]	(2	5	0)	(-5	7	4)	3.339	1.118	2.99	72.6	62.6

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Anthophyllite (250) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[20	-8	-11]	(2	5	0)	(5	7	4)	3.339	1.118	2.99	58.9	81.7
[20	-8	31]	(2	5	0)	(-3	8	4)	3.339	1.118	2.99	66.4	67.6
[20	-8	-1]	(2	5	0)	(3	8	-4)	3.339	1.118	2.99	57.9	89.2
[20	-8	-45]	(2	5	0)	(9	0	4)	3.339	1.111	3.01	78.8	59.1
[20	-8	47]	(2	5	0)	(-9	1	4)	3.339	1.109	3.01	82.1	58.0
[20	-8	-43]	(2	5	0)	(9	1	4)	3.339	1.109	3.01	75.4	60.2
[20	-8	-49]	(2	5	0)	(9	-2	4)	3.339	1.102	3.03	85.5	56.9
[20	-8	-41]	(2	5	0)	(9	2	4)	3.339	1.102	3.03	72.0	61.4
[20	-8	47]	(2	5	0)	(-7	6	4)	3.339	1.098	3.04	78.9	58.0
[20	-8	-23]	(2	5	0)	(7	6	4)	3.339	1.098	3.04	60.4	73.0
[20	-8	13]	(2	5	0)	(1	9	4)	3.339	1.098	3.04	57.6	80.2
[5	-2	11]	(2	5	0)	(-6	7	4)	3.339	1.096	3.05	74.2	59.6
[5	-2	4]	(2	5	0)	(6	7	-4)	3.339	1.096	3.05	58.1	78.0
[5	-2	-7]	(2	5	0)	(2	-9	4)	3.339	1.092	3.06	62.0	69.6
[5	-2	2]	(2	5	0)	(2	9	4)	3.339	1.092	3.06	56.3	83.9
[20	-8	-51]	(2	5	0)	(9	-3	4)	3.339	1.092	3.06	88.8	55.8
[20	-8	-39]	(2	5	0)	(9	3	4)	3.339	1.092	3.06	68.8	62.6
[10	-4	25]	(2	5	0)	(-8	5	4)	3.339	1.092	3.06	83.5	56.4
[10	-4	15]	(2	5	0)	(8	5	-4)	3.339	1.092	3.06	62.9	68.2
[20	-8	-41]	(2	5	0)	(5	-8	4)	3.339	1.087	3.07	69.7	61.4
[20	-8	-9]	(2	5	0)	(5	8	4)	3.339	1.087	3.07	56.0	83.2
[20	-8	33]	(2	5	0)	(-3	9	4)	3.339	1.083	3.08	63.6	66.3
[20	-8	-3]	(2	5	0)	(3	9	-4)	3.339	1.083	3.08	55.2	87.7
[20	-8	-53]	(2	5	0)	(9	-4	4)	3.339	1.078	3.10	88.0	54.8
[20	-8	-37]	(2	5	0)	(9	4	4)	3.339	1.078	3.10	65.5	63.8
[20	-8	-49]	(2	5	0)	(-7	7	-4)	3.339	1.072	3.11	75.8	56.9
[20	-8	21]	(2	5	0)	(-7	-7	4)	3.339	1.072	3.11	57.5	74.4
[10	-4	-19]	(2	5	0)	(-4	9	-4)	3.339	1.070	3.12	65.3	63.2
[10	-4	-1]	(2	5	0)	(4	9	4)	3.339	1.070	3.12	54.2	88.5
[20	-8	55]	(2	5	0)	(-9	5	4)	3.339	1.061	3.15	84.8	53.8
[20	-8	35]	(2	5	0)	(9	5	-4)	3.339	1.061	3.15	62.4	65.0
[5	-2	1]	(2	5	0)	(-1	0	5)	3.339	1.054	3.17	88.8	87.0
[20	-8	43]	(2	5	0)	(-5	9	4)	3.339	1.054	3.17	67.0	60.2
[20	-8	-7]	(2	5	0)	(5	9	4)	3.339	1.054	3.17	53.3	84.7
[25	-10	2]	(2	5	0)	(0	1	5)	3.339	1.054	3.17	86.9	88.8
[25	-10	7]	(2	5	0)	(-1	1	5)	3.339	1.052	3.17	88.0	85.7
[25	-10	-3]	(2	5	0)	(1	1	5)	3.339	1.052	3.17	85.7	88.2
[5	-2	-2]	(2	5	0)	(2	0	5)	3.339	1.049	3.18	87.7	83.9
[25	-10	12]	(2	5	0)	(-2	1	5)	3.339	1.047	3.19	89.2	82.7
[25	-10	-8]	(2	5	0)	(2	1	5)	3.339	1.047	3.19	84.5	85.1
[25	-10	9]	(2	5	0)	(-1	2	5)	3.339	1.047	3.19	84.9	84.5
[25	-10	-1]	(2	5	0)	(1	2	5)	3.339	1.047	3.19	82.6	89.4
[10	-4	27]	(2	5	0)	(-8	7	4)	3.339	1.046	3.19	77.4	54.3
[10	-4	-13]	(2	5	0)	(8	7	4)	3.339	1.046	3.19	57.0	70.9
[20	-8	-51]	(2	5	0)	(-7	8	-4)	3.339	1.044	3.20	73.0	55.8
[20	-8	-19]	(2	5	0)	(7	8	4)	3.339	1.044	3.20	54.7	75.8
[25	-10	14]	(2	5	0)	(-2	2	5)	3.339	1.042	3.20	86.1	81.5
[25	-10	-6]	(2	5	0)	(2	2	5)	3.339	1.042	3.20	81.4	86.3

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Anthophyllite (250) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[20	-8	57]	(2	5	0)	(-9	6	4)	3.339	1.041	3.21	81.8	52.8
[20	-8	-33]	(2	5	0)	(9	6	4)	3.339	1.041	3.21	59.5	66.3
[5	-2	-3]	(2	5	0)	(3	0	5)	3.339	1.041	3.21	86.5	80.9
[25	-10	6]	(2	5	0)	(0	3	5)	3.339	1.040	3.21	80.6	86.3
[25	-10	-17]	(2	5	0)	(3	-1	5)	3.339	1.039	3.21	89.6	79.7
[25	-10	-13]	(2	5	0)	(3	1	5)	3.339	1.039	3.21	83.4	82.1
[25	-10	11]	(2	5	0)	(-1	3	5)	3.339	1.038	3.22	81.8	83.3
[25	-10	1]	(2	5	0)	(1	3	5)	3.339	1.038	3.22	79.5	89.4
[5	-2	12]	(2	5	0)	(-6	9	4)	3.339	1.036	3.22	68.6	57.4
[5	-2	-3]	(2	5	0)	(6	9	4)	3.339	1.036	3.22	52.6	80.9
[25	-10	19]	(2	5	0)	(-3	2	5)	3.339	1.034	3.23	87.3	78.6
[25	-10	-11]	(2	5	0)	(3	2	5)	3.339	1.034	3.23	80.3	83.3
[25	-10	16]	(2	5	0)	(-2	3	5)	3.339	1.033	3.23	83.0	80.3
[25	-10	-4]	(2	5	0)	(2	3	5)	3.339	1.033	3.23	78.4	87.6
[5	-2	-4]	(2	5	0)	(4	0	5)	3.339	1.030	3.24	85.4	78.0
[25	-10	-22]	(2	5	0)	(4	-1	5)	3.339	1.028	3.25	88.5	76.8
[25	-10	-18]	(2	5	0)	(4	1	5)	3.339	1.028	3.25	82.3	79.2
[25	-10	13]	(2	5	0)	(-1	4	5)	3.339	1.026	3.25	78.8	82.1
[25	-10	3]	(2	5	0)	(1	4	5)	3.339	1.026	3.25	76.5	88.2
[25	-10	21]	(2	5	0)	(-3	3	5)	3.339	1.025	3.26	84.2	77.4
[25	-10	-9]	(2	5	0)	(3	3	5)	3.339	1.025	3.26	77.3	84.5
[25	-10	24]	(2	5	0)	(-4	2	5)	3.339	1.023	3.26	88.5	75.7
[25	-10	-16]	(2	5	0)	(4	2	5)	3.339	1.023	3.26	79.3	80.3
[25	-10	18]	(2	5	0)	(-2	4	5)	3.339	1.021	3.27	80.0	79.2
[25	-10	-2]	(2	5	0)	(2	4	5)	3.339	1.021	3.27	75.4	88.8
[20	-8	-31]	(2	5	0)	(9	7	4)	3.339	1.019	3.28	56.6	67.6
[20	-8	-53]	(2	5	0)	(-7	9	-4)	3.339	1.015	3.29	70.3	54.8
[20	-8	-17]	(2	5	0)	(7	9	4)	3.339	1.015	3.29	52.1	77.3
[25	-10	26]	(2	5	0)	(-4	3	5)	3.339	1.015	3.29	85.4	74.5
[25	-10	-14]	(2	5	0)	(4	3	5)	3.339	1.015	3.29	76.2	81.5
[25	-10	-27]	(2	5	0)	(5	-1	5)	3.339	1.014	3.29	87.4	74.0
[25	-10	-23]	(2	5	0)	(5	1	5)	3.339	1.014	3.29	81.3	76.2
[25	-10	-7]	(2	5	0)	(3	4	5)	3.339	1.014	3.29	74.3	85.7
[5	-2	3]	(2	5	0)	(-1	5	5)	3.339	1.011	3.30	75.9	80.9
[5	-2	1]	(2	5	0)	(1	5	5)	3.339	1.011	3.30	73.5	87.0
[25	-10	29]	(2	5	0)	(-5	2	5)	3.339	1.009	3.31	89.6	72.8
[25	-10	-21]	(2	5	0)	(5	2	5)	3.339	1.009	3.31	78.3	77.4
[5	-2	4]	(2	5	0)	(-2	5	5)	3.339	1.007	3.32	77.1	78.0
[5	-2	0]	(2	5	0)	(2	5	5)	3.339	1.007	3.32	72.4	90.0
[25	-10	28]	(2	5	0)	(-4	4	5)	3.339	1.003	3.33	82.5	73.4
[25	-10	-12]	(2	5	0)	(4	4	5)	3.339	1.003	3.33	73.3	82.7
[25	-10	31]	(2	5	0)	(-5	3	5)	3.339	1.001	3.34	86.6	71.7
[25	-10	-19]	(2	5	0)	(5	3	5)	3.339	1.001	3.34	75.3	78.6

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Anthophyllite (610) 478 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[1	-6	-1]	(6	1	0)	(1	0	1)	3.039	5.077	0.60	74.3	87.2
[1	-6	6]	(6	1	0)	(0	1	1)	3.039	5.064	0.60	87.2	73.8
[1	-6	-7]	(6	1	0)	(1	-1	1)	3.039	4.885	0.62	77.7	71.3
[1	-6	5]	(6	1	0)	(1	1	1)	3.039	4.885	0.62	72.2	76.4
[1	-6	-2]	(6	1	0)	(2	0	1)	3.039	4.586	0.66	60.8	84.5
[1	-6	-8]	(6	1	0)	(2	-1	1)	3.039	4.442	0.68	64.5	68.8
[1	-6	4]	(6	1	0)	(2	1	1)	3.039	4.442	0.68	59.0	79.0
[1	-6	-13]	(6	1	0)	(1	-2	1)	3.039	4.416	0.69	81.3	57.8
[1	-6	11]	(6	1	0)	(1	2	1)	3.039	4.416	0.69	71.4	61.9
[1	-6	14]	(6	1	0)	(2	-2	-1)	3.039	4.081	0.74	69.1	55.9
[1	-6	-10]	(6	1	0)	(2	2	-1)	3.039	4.081	0.74	59.2	64.2
[1	-6	-3]	(6	1	0)	(3	0	1)	3.039	4.011	0.76	50.1	81.7
[1	-6	18]	(6	1	0)	(0	3	1)	3.039	3.954	0.77	83.5	48.9
[1	-6	-9]	(6	1	0)	(3	-1	1)	3.039	3.914	0.78	54.0	66.4
[1	-6	3]	(6	1	0)	(3	1	1)	3.039	3.914	0.78	48.5	81.7
[1	-6	-19]	(6	1	0)	(1	-3	1)	3.039	3.867	0.79	84.5	47.4
[1	-6	17]	(6	1	0)	(1	3	1)	3.039	3.867	0.79	71.6	50.5
[1	-6	-15]	(6	1	0)	(3	-2	1)	3.039	3.660	0.83	59.0	54.0
[1	-6	9]	(6	1	0)	(3	2	1)	3.039	3.660	0.83	49.1	66.4
[1	-6	-20]	(6	1	0)	(2	-3	1)	3.039	3.636	0.84	73.5	45.9
[1	-6	16]	(6	1	0)	(2	3	1)	3.039	3.636	0.84	60.6	52.2
[1	-6	-4]	(6	1	0)	(4	0	1)	3.039	3.479	0.87	42.2	79.0
[1	-6	-10]	(6	1	0)	(4	-1	1)	3.039	3.415	0.89	45.9	64.2
[1	-6	2]	(6	1	0)	(4	1	1)	3.039	3.415	0.89	40.5	84.5
[1	-6	15]	(6	1	0)	(3	3	1)	3.039	3.329	0.91	51.2	54.0
[1	-6	-16]	(6	1	0)	(4	-2	1)	3.039	3.243	0.94	51.0	52.2
[1	-6	8]	(6	1	0)	(4	2	1)	3.039	3.243	0.94	41.2	68.8
[1	-6	-5]	(6	1	0)	(5	0	1)	3.039	3.030	1.00	36.2	76.4
[1	-6	14]	(6	1	0)	(4	3	1)	3.039	3.005	1.01	43.5	55.9
[1	-6	-11]	(6	1	0)	(5	-1	1)	3.039	2.988	1.02	39.9	61.9
[1	-6	1]	(6	1	0)	(5	1	1)	3.039	2.988	1.02	34.5	87.2
[1	-6	-17]	(6	1	0)	(5	-2	1)	3.039	2.870	1.06	44.8	50.5
[1	-6	7]	(6	1	0)	(5	2	1)	3.039	2.870	1.06	35.0	71.3
[1	-6	20]	(6	1	0)	(4	4	1)	3.039	2.747	1.11	46.4	45.9
[1	-6	13]	(6	1	0)	(5	3	1)	3.039	2.702	1.12	37.2	57.8
[1	-6	-6]	(6	1	0)	(6	0	1)	3.039	2.663	1.14	31.7	73.8
[1	-6	0]	(6	1	0)	(0	0	2)	3.039	2.640	1.15	90.0	90.0
[1	-6	12]	(6	1	0)	(6	-1	-1)	3.039	2.634	1.15	35.2	59.8
[1	-6	0]	(6	1	0)	(6	1	-1)	3.039	2.634	1.15	29.9	90.0
[2	-12	-1]	(6	1	0)	(1	0	2)	3.039	2.614	1.16	82.0	88.6
[2	-12	-7]	(6	1	0)	(1	-1	2)	3.039	2.586	1.17	83.5	80.4
[2	-12	5]	(6	1	0)	(1	1	2)	3.039	2.586	1.17	80.7	83.1
[1	-6	-18]	(6	1	0)	(6	-2	1)	3.039	2.552	1.19	39.9	48.9
[1	-6	6]	(6	1	0)	(6	2	1)	3.039	2.552	1.19	30.2	73.8
[1	-6	-4]	(6	1	0)	(2	-1	2)	3.039	2.513	1.21	75.9	79.0
[1	-6	2]	(6	1	0)	(2	1	2)	3.039	2.513	1.21	73.0	84.5
[1	-6	19]	(6	1	0)	(5	4	1)	3.039	2.509	1.21	40.2	47.4
[2	-12	-13]	(6	1	0)	(1	-2	2)	3.039	2.509	1.21	85.1	72.5

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[2	-12	11]	(6	1	0)	(1	2	2)	3.039	2.509	1.21	79.6	75.1
[1	-6	12]	(6	1	0)	(6	3	1)	3.039	2.431	1.25	32.2	59.8
[2	-12	-3]	(6	1	0)	(3	0	2)	3.039	2.427	1.25	67.2	85.8
[2	-12	-9]	(6	1	0)	(3	-1	2)	3.039	2.405	1.26	68.8	77.7
[2	-12	3]	(6	1	0)	(3	1	2)	3.039	2.405	1.26	66.0	85.8
[2	-12	-19]	(6	1	0)	(1	-3	2)	3.039	2.394	1.27	86.6	65.3
[2	-12	17]	(6	1	0)	(1	3	2)	3.039	2.394	1.27	78.7	67.6
[1	-6	-7]	(6	1	0)	(7	0	1)	3.039	2.363	1.29	28.2	71.3
[1	-6	-13]	(6	1	0)	(7	-1	1)	3.039	2.343	1.30	31.6	57.8
[1	-6	-1]	(6	1	0)	(7	1	1)	3.039	2.343	1.30	26.4	87.2
[2	-12	-15]	(6	1	0)	(3	-2	2)	3.039	2.342	1.30	70.7	70.0
[2	-12	9]	(6	1	0)	(3	2	2)	3.039	2.342	1.30	65.2	77.7
[1	-6	-10]	(6	1	0)	(2	-3	2)	3.039	2.336	1.30	79.5	64.2
[1	-6	8]	(6	1	0)	(2	3	2)	3.039	2.336	1.30	71.6	68.8
[1	-6	18]	(6	1	0)	(6	4	1)	3.039	2.288	1.33	35.1	48.9
[1	-6	-19]	(6	1	0)	(7	-2	1)	3.039	2.285	1.33	36.0	47.4
[1	-6	5]	(6	1	0)	(7	2	1)	3.039	2.285	1.33	26.4	76.4
[1	-6	-5]	(6	1	0)	(4	-1	2)	3.039	2.274	1.34	62.4	76.4
[1	-6	1]	(6	1	0)	(4	1	2)	3.039	2.274	1.34	59.6	87.2
[1	-6	12]	(6	1	0)	(0	4	2)	3.039	2.274	1.34	85.1	59.8
[2	-12	-25]	(6	1	0)	(1	-4	2)	3.039	2.257	1.35	88.0	58.8
[2	-12	23]	(6	1	0)	(1	4	2)	3.039	2.257	1.35	78.1	60.9
[2	-12	-21]	(6	1	0)	(3	-3	2)	3.039	2.248	1.35	72.8	63.0
[2	-12	15]	(6	1	0)	(3	3	2)	3.039	2.248	1.35	65.0	70.0
[1	-6	11]	(6	1	0)	(7	3	1)	3.039	2.197	1.38	28.1	61.9
[2	-12	-5]	(6	1	0)	(5	0	2)	3.039	2.149	1.41	55.1	83.1
[1	-6	-11]	(6	1	0)	(4	-3	2)	3.039	2.140	1.42	66.7	61.9
[1	-6	7]	(6	1	0)	(4	3	2)	3.039	2.140	1.42	58.9	71.3
[2	-12	-11]	(6	1	0)	(5	-1	2)	3.039	2.134	1.42	56.8	75.1
[2	-12	1]	(6	1	0)	(5	1	2)	3.039	2.134	1.42	53.9	88.6
[2	-12	-27]	(6	1	0)	(3	-4	2)	3.039	2.133	1.42	74.9	56.8
[2	-12	21]	(6	1	0)	(3	4	2)	3.039	2.133	1.42	65.0	63.0
[1	-6	-8]	(6	1	0)	(8	0	1)	3.039	2.118	1.43	25.5	68.8
[2	-12	-31]	(6	1	0)	(1	-5	2)	3.039	2.111	1.44	89.3	53.1
[2	-12	29]	(6	1	0)	(1	5	2)	3.039	2.111	1.44	77.7	54.9
[1	-6	-14]	(6	1	0)	(8	-1	1)	3.039	2.104	1.44	28.8	55.9
[1	-6	-2]	(6	1	0)	(8	1	1)	3.039	2.104	1.44	23.6	84.5
[1	-6	17]	(6	1	0)	(7	4	1)	3.039	2.090	1.45	30.8	50.5
[2	-12	-17]	(6	1	0)	(5	-2	2)	3.039	2.090	1.45	58.9	67.6
[2	-12	7]	(6	1	0)	(5	2	2)	3.039	2.090	1.45	53.4	80.4
[1	-6	-16]	(6	1	0)	(2	-5	2)	3.039	2.071	1.47	83.0	52.2
[1	-6	14]	(6	1	0)	(2	5	2)	3.039	2.071	1.47	71.4	55.9
[1	-6	-20]	(6	1	0)	(8	-2	1)	3.039	2.061	1.47	32.9	45.9
[1	-6	4]	(6	1	0)	(8	2	1)	3.039	2.061	1.47	23.4	79.0
[2	-12	-23]	(6	1	0)	(5	-3	2)	3.039	2.022	1.50	61.2	60.9
[2	-12	13]	(6	1	0)	(5	3	2)	3.039	2.022	1.50	53.4	72.5
[2	-12	-33]	(6	1	0)	(3	-5	2)	3.039	2.009	1.51	77.0	51.4
[2	-12	27]	(6	1	0)	(3	5	2)	3.039	2.009	1.51	65.4	56.8

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[1	-6	10]	(6	1	0)	(8	3	1)	3.039	1.996	1.52	24.8	64.2
[1	-6	-6]	(6	1	0)	(6	-1	2)	3.039	1.993	1.52	51.8	73.8
[1	-6	0]	(6	1	0)	(6	1	2)	3.039	1.993	1.52	49.0	90.0
[2	-12	37]	(6	1	0)	(-1	6	2)	3.039	1.966	1.55	89.6	48.1
[2	-12	35]	(6	1	0)	(1	6	2)	3.039	1.966	1.55	77.5	49.7
[2	-12	-29]	(6	1	0)	(5	-4	2)	3.039	1.937	1.57	63.7	54.9
[2	-12	19]	(6	1	0)	(5	4	2)	3.039	1.937	1.57	53.9	65.3
[1	-6	-17]	(6	1	0)	(4	-5	2)	3.039	1.931	1.57	71.3	50.5
[1	-6	13]	(6	1	0)	(4	5	2)	3.039	1.931	1.57	59.8	57.8
[1	-6	-9]	(6	1	0)	(9	0	1)	3.039	1.916	1.59	23.3	66.4
[1	-6	16]	(6	1	0)	(8	4	1)	3.039	1.915	1.59	27.3	52.2
[1	-6	-15]	(6	1	0)	(9	-1	1)	3.039	1.905	1.60	26.5	54.0
[1	-6	-3]	(6	1	0)	(9	1	1)	3.039	1.905	1.60	21.4	81.7
[1	-6	-12]	(6	1	0)	(6	-3	2)	3.039	1.901	1.60	56.4	59.8
[1	-6	6]	(6	1	0)	(6	3	2)	3.039	1.901	1.60	48.6	73.8
[2	-12	39]	(6	1	0)	(3	-6	-2)	3.039	1.883	1.61	78.8	46.6
[2	-12	-33]	(6	1	0)	(-3	-6	2)	3.039	1.883	1.61	65.9	51.4
[1	-6	3]	(6	1	0)	(9	2	1)	3.039	1.873	1.62	21.0	81.7
[2	-12	-7]	(6	1	0)	(7	0	2)	3.039	1.868	1.63	45.9	80.4
[2	-12	-13]	(6	1	0)	(7	-1	2)	3.039	1.858	1.64	47.5	72.5
[2	-12	-1]	(6	1	0)	(7	1	2)	3.039	1.858	1.64	44.7	88.6
[2	-12	-35]	(6	1	0)	(5	-5	2)	3.039	1.843	1.65	66.2	49.7
[2	-12	25]	(6	1	0)	(5	5	2)	3.039	1.843	1.65	54.7	58.8
[2	-12	-19]	(6	1	0)	(7	-2	2)	3.039	1.828	1.66	49.7	65.3
[2	-12	5]	(6	1	0)	(7	2	2)	3.039	1.828	1.66	44.2	83.1
[2	-12	41]	(6	1	0)	(1	7	2)	3.039	1.828	1.66	77.4	45.2
[1	-6	9]	(6	1	0)	(9	3	1)	3.039	1.824	1.67	22.1	66.4
[1	-6	20]	(6	1	0)	(2	7	2)	3.039	1.802	1.69	71.8	45.9
[2	-12	-25]	(6	1	0)	(7	-3	2)	3.039	1.782	1.70	52.1	58.8
[2	-12	11]	(6	1	0)	(7	3	2)	3.039	1.782	1.70	44.3	75.1
[1	-6	15]	(6	1	0)	(9	4	1)	3.039	1.761	1.73	24.3	54.0
[2	-12	39]	(6	1	0)	(3	7	2)	3.039	1.760	1.73	66.5	46.6
[3	-18	-1]	(6	1	0)	(1	0	3)	3.039	1.752	1.73	84.6	89.1
[1	-6	2]	(6	1	0)	(0	1	3)	3.039	1.752	1.73	89.0	84.5
[1	-6	18]	(6	1	0)	(6	-5	-2)	3.039	1.750	1.74	61.6	48.9
[1	-6	-12]	(6	1	0)	(-6	-5	2)	3.039	1.750	1.74	50.0	59.8
[3	-18	-7]	(6	1	0)	(1	-1	3)	3.039	1.744	1.74	85.6	83.6
[3	-18	5]	(6	1	0)	(1	1	3)	3.039	1.744	1.74	83.7	85.4
[2	-12	-41]	(6	1	0)	(5	-6	2)	3.039	1.744	1.74	68.6	45.2
[2	-12	31]	(6	1	0)	(5	6	2)	3.039	1.744	1.74	55.7	53.1
[1	-6	-7]	(6	1	0)	(8	-1	2)	3.039	1.731	1.76	43.8	71.3
[1	-6	-1]	(6	1	0)	(8	1	2)	3.039	1.731	1.76	41.0	87.2
[3	-18	-2]	(6	1	0)	(2	0	3)	3.039	1.729	1.76	79.4	88.1
[2	-12	-31]	(6	1	0)	(7	-4	2)	3.039	1.724	1.76	54.7	53.1
[2	-12	17]	(6	1	0)	(7	4	2)	3.039	1.724	1.76	44.9	67.6
[3	-18	-8]	(6	1	0)	(2	-1	3)	3.039	1.721	1.77	80.4	82.6
[3	-18	4]	(6	1	0)	(2	1	3)	3.039	1.721	1.77	78.5	86.3
[3	-18	-13]	(6	1	0)	(1	-2	3)	3.039	1.719	1.77	86.6	78.1

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-18	11]	(6	1	0)	(1	2	3)	3.039	1.719	1.77	82.9	79.9
[3	-18	10]	(6	1	0)	(2	2	3)	3.039	1.698	1.79	77.7	80.8
[1	-6	1]	(6	1	0)	(3	1	3)	3.039	1.685	1.80	73.4	87.2
[3	-18	-19]	(6	1	0)	(1	-3	3)	3.039	1.681	1.81	87.6	72.9
[3	-18	17]	(6	1	0)	(1	3	3)	3.039	1.681	1.81	82.1	74.6
[1	-6	-13]	(6	1	0)	(8	-3	2)	3.039	1.670	1.82	48.4	57.8
[1	-6	5]	(6	1	0)	(8	3	2)	3.039	1.670	1.82	40.6	76.4
[3	-18	-20]	(6	1	0)	(2	-3	3)	3.039	1.661	1.83	82.5	72.1
[3	-18	16]	(6	1	0)	(2	3	3)	3.039	1.661	1.83	77.0	75.5
[2	-12	-37]	(6	1	0)	(7	-5	2)	3.039	1.656	1.83	57.4	48.1
[2	-12	23]	(6	1	0)	(7	5	2)	3.039	1.656	1.83	45.9	60.9
[2	-12	37]	(6	1	0)	(5	7	2)	3.039	1.645	1.85	56.8	48.1
[3	-18	-4]	(6	1	0)	(4	0	3)	3.039	1.645	1.85	69.5	86.3
[3	-18	-10]	(6	1	0)	(4	-1	3)	3.039	1.638	1.86	70.5	80.8
[3	-18	2]	(6	1	0)	(4	1	3)	3.039	1.638	1.86	68.6	88.2
[3	-18	-25]	(6	1	0)	(1	-4	3)	3.039	1.631	1.86	88.6	68.0
[3	-18	23]	(6	1	0)	(1	4	3)	3.039	1.631	1.86	81.4	69.6
[2	-12	-9]	(6	1	0)	(9	0	2)	3.039	1.622	1.87	39.0	77.7
[3	-18	8]	(6	1	0)	(4	2	3)	3.039	1.618	1.88	68.0	82.6
[2	-12	-15]	(6	1	0)	(9	-1	2)	3.039	1.615	1.88	40.6	70.0
[2	-12	-3]	(6	1	0)	(9	1	2)	3.039	1.615	1.88	37.8	85.8
[3	-18	-26]	(6	1	0)	(2	-4	3)	3.039	1.613	1.88	83.6	67.2
[3	-18	22]	(6	1	0)	(2	4	3)	3.039	1.613	1.88	76.5	70.4
[2	-12	-21]	(6	1	0)	(9	-2	2)	3.039	1.596	1.90	42.7	63.0
[2	-12	3]	(6	1	0)	(9	2	2)	3.039	1.596	1.90	37.3	85.8
[3	-18	-5]	(6	1	0)	(5	0	3)	3.039	1.589	1.91	65.0	85.4
[3	-18	-22]	(6	1	0)	(4	-3	3)	3.039	1.586	1.92	73.0	70.4
[3	-18	14]	(6	1	0)	(4	3	3)	3.039	1.586	1.92	67.5	77.3
[3	-18	-11]	(6	1	0)	(5	-1	3)	3.039	1.583	1.92	66.0	79.9
[3	-18	1]	(6	1	0)	(5	1	3)	3.039	1.583	1.92	64.1	89.1
[2	-12	29]	(6	1	0)	(7	6	2)	3.039	1.583	1.92	47.1	54.9
[1	-6	-9]	(6	1	0)	(3	-4	3)	3.039	1.583	1.92	78.9	66.4
[1	-6	7]	(6	1	0)	(3	4	3)	3.039	1.583	1.92	71.8	71.3
[1	-6	10]	(6	1	0)	(0	5	3)	3.039	1.579	1.92	85.7	64.2
[1	-6	18]	(6	1	0)	(6	7	2)	3.039	1.578	1.93	52.5	48.9
[3	-18	-31]	(6	1	0)	(1	-5	3)	3.039	1.574	1.93	89.5	63.4
[3	-18	29]	(6	1	0)	(1	5	3)	3.039	1.574	1.93	80.9	64.9
[2	-12	-27]	(6	1	0)	(9	-3	2)	3.039	1.565	1.94	45.1	56.8
[2	-12	9]	(6	1	0)	(9	3	2)	3.039	1.565	1.94	37.4	77.7
[3	-18	-17]	(6	1	0)	(5	-2	3)	3.039	1.565	1.94	67.2	74.6
[3	-18	7]	(6	1	0)	(5	2	3)	3.039	1.565	1.94	63.5	83.6
[1	-6	19]	(6	1	0)	(8	-5	-2)	3.039	1.565	1.94	53.7	47.4
[1	-6	-11]	(6	1	0)	(-8	-5	2)	3.039	1.565	1.94	42.2	61.9
[3	-18	-32]	(6	1	0)	(2	-5	3)	3.039	1.557	1.95	84.7	62.7
[3	-18	28]	(6	1	0)	(2	5	3)	3.039	1.557	1.95	76.1	65.7
[3	-18	-28]	(6	1	0)	(4	-4	3)	3.039	1.544	1.97	74.3	65.7
[3	-18	20]	(6	1	0)	(4	4	3)	3.039	1.544	1.97	67.2	72.1
[3	-18	-23]	(6	1	0)	(5	-3	3)	3.039	1.536	1.98	68.6	69.6

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-18	13]	(6	1	0)	(5	3	3)	3.039	1.536	1.98	63.1	78.1
[1	-6	-11]	(6	1	0)	(3	-5	3)	3.039	1.530	1.99	80.1	61.9
[1	-6	9]	(6	1	0)	(3	5	3)	3.039	1.530	1.99	71.5	66.4
[2	-12	-33]	(6	1	0)	(9	-4	2)	3.039	1.525	1.99	47.7	51.4
[2	-12	15]	(6	1	0)	(9	4	2)	3.039	1.525	1.99	37.9	70.0
[1	-6	-4]	(6	1	0)	(6	-1	3)	3.039	1.523	2.00	61.8	79.0
[1	-6	0]	(6	1	0)	(6	1	3)	3.039	1.523	2.00	59.9	90.0
[3	-18	37]	(6	1	0)	(-1	6	3)	3.039	1.511	2.01	89.7	59.1
[3	-18	35]	(6	1	0)	(1	6	3)	3.039	1.511	2.01	80.4	60.5
[2	-12	35]	(6	1	0)	(7	7	2)	3.039	1.508	2.01	48.5	49.7
[1	-6	-6]	(6	1	0)	(6	-2	3)	3.039	1.507	2.02	63.1	73.8
[1	-6	2]	(6	1	0)	(6	2	3)	3.039	1.507	2.02	59.3	84.5
[3	-18	29]	(6	1	0)	(-5	4	3)	3.039	1.498	2.03	70.0	64.9
[3	-18	19]	(6	1	0)	(5	4	3)	3.039	1.498	2.03	62.9	72.9
[3	-18	-38]	(6	1	0)	(2	-6	3)	3.039	1.496	2.03	85.7	58.5
[3	-18	34]	(6	1	0)	(2	6	3)	3.039	1.496	2.03	75.8	61.2
[3	-18	-34]	(6	1	0)	(4	-5	3)	3.039	1.495	2.03	75.7	61.2
[3	-18	-26]	(6	1	0)	(4	5	-3)	3.039	1.495	2.03	67.1	67.2
[2	-12	-39]	(6	1	0)	(9	-5	2)	3.039	1.477	2.06	50.3	46.6
[2	-12	21]	(6	1	0)	(9	5	2)	3.039	1.477	2.06	38.9	63.0
[3	-18	7]	(6	1	0)	(-7	0	3)	3.039	1.465	2.07	56.9	83.6
[3	-18	-13]	(6	1	0)	(7	-1	3)	3.039	1.460	2.08	58.0	78.1
[3	-18	-1]	(6	1	0)	(7	1	3)	3.039	1.460	2.08	56.1	89.1
[3	-18	35]	(6	1	0)	(5	-5	-3)	3.039	1.453	2.09	71.5	60.5
[3	-18	-25]	(6	1	0)	(5	5	-3)	3.039	1.453	2.09	62.9	68.0
[1	-6	14]	(6	1	0)	(0	7	3)	3.039	1.450	2.10	84.5	55.9
[1	-6	-10]	(6	1	0)	(6	-4	3)	3.039	1.446	2.10	66.0	64.2
[1	-6	6]	(6	1	0)	(6	4	3)	3.039	1.446	2.10	58.9	73.8
[3	-18	-19]	(6	1	0)	(7	-2	3)	3.039	1.446	2.10	59.2	72.9
[3	-18	5]	(6	1	0)	(7	2	3)	3.039	1.446	2.10	55.5	85.4
[3	-18	43]	(6	1	0)	(-1	7	3)	3.039	1.445	2.10	88.9	55.2
[3	-18	41]	(6	1	0)	(1	7	3)	3.039	1.445	2.10	80.0	56.5
[3	-18	-40]	(6	1	0)	(4	-6	3)	3.039	1.440	2.11	77.0	57.1
[3	-18	32]	(6	1	0)	(4	6	3)	3.039	1.440	2.11	67.1	62.7
[1	-6	17]	(6	1	0)	(8	7	2)	3.039	1.438	2.11	44.9	50.5
[2	-12	41]	(6	1	0)	(7	8	2)	3.039	1.434	2.12	50.0	45.2
[3	-18	-44]	(6	1	0)	(2	-7	3)	3.039	1.432	2.12	86.7	54.6
[3	-18	40]	(6	1	0)	(2	7	3)	3.039	1.432	2.12	75.7	57.1
[2	-12	27]	(6	1	0)	(9	6	2)	3.039	1.425	2.13	40.2	56.8
[3	-18	-25]	(6	1	0)	(7	-3	3)	3.039	1.423	2.14	60.7	68.0
[3	-18	11]	(6	1	0)	(7	3	3)	3.039	1.423	2.14	55.2	79.9
[1	-6	-15]	(6	1	0)	(3	-7	3)	3.039	1.411	2.15	82.4	54.0
[1	-6	13]	(6	1	0)	(3	7	3)	3.039	1.411	2.15	71.4	57.8
[1	-6	-12]	(6	1	0)	(6	-5	3)	3.039	1.406	2.16	67.5	59.8
[1	-6	8]	(6	1	0)	(6	5	3)	3.039	1.406	2.16	58.9	68.8
[3	-18	-41]	(6	1	0)	(5	-6	3)	3.039	1.403	2.17	72.9	56.5
[3	-18	31]	(6	1	0)	(5	6	3)	3.039	1.403	2.17	63.0	63.4
[3	-18	-8]	(6	1	0)	(8	0	3)	3.039	1.401	2.17	53.4	82.6

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-18	-14]	(6	1	0)	(8	-1	3)	3.039	1.396	2.18	54.4	77.3
[3	-18	-2]	(6	1	0)	(8	1	3)	3.039	1.396	2.18	52.5	88.1
[3	-18	-31]	(6	1	0)	(7	-4	3)	3.039	1.392	2.18	62.2	63.4
[3	-18	17]	(6	1	0)	(7	4	3)	3.039	1.392	2.18	55.1	74.6
[3	-18	-20]	(6	1	0)	(8	-2	3)	3.039	1.384	2.20	55.7	72.1
[3	-18	4]	(6	1	0)	(8	2	3)	3.039	1.384	2.20	52.0	86.3
[3	-18	-46]	(6	1	0)	(4	-7	3)	3.039	1.383	2.20	78.3	53.4
[3	-18	38]	(6	1	0)	(4	7	3)	3.039	1.383	2.20	67.3	58.5
[3	-18	49]	(6	1	0)	(-1	8	3)	3.039	1.379	2.20	88.2	51.6
[3	-18	47]	(6	1	0)	(1	8	3)	3.039	1.379	2.20	79.7	52.8
[2	-12	33]	(6	1	0)	(9	7	2)	3.039	1.370	2.22	41.6	51.4
[3	-18	-50]	(6	1	0)	(2	-8	3)	3.039	1.368	2.22	87.6	51.1
[3	-18	46]	(6	1	0)	(2	8	3)	3.039	1.368	2.22	75.5	53.4
[3	-18	-26]	(6	1	0)	(8	-3	3)	3.039	1.363	2.23	57.2	67.2
[3	-18	10]	(6	1	0)	(8	3	3)	3.039	1.363	2.23	51.7	80.8
[3	-18	37]	(6	1	0)	(7	-5	-3)	3.039	1.356	2.24	63.8	59.1
[3	-18	-23]	(6	1	0)	(-7	-5	3)	3.039	1.356	2.24	55.3	69.6
[3	-18	-47]	(6	1	0)	(5	-7	3)	3.039	1.350	2.25	74.3	52.8
[3	-18	37]	(6	1	0)	(5	7	3)	3.039	1.350	2.25	63.3	59.1
[1	-6	-17]	(6	1	0)	(3	-8	3)	3.039	1.350	2.25	83.5	50.5
[1	-6	15]	(6	1	0)	(3	8	3)	3.039	1.350	2.25	71.5	54.0
[3	-18	-32]	(6	1	0)	(8	-4	3)	3.039	1.337	2.27	58.7	62.7
[3	-18	16]	(6	1	0)	(8	4	3)	3.039	1.337	2.27	51.7	75.5
[1	-6	-5]	(6	1	0)	(9	-1	3)	3.039	1.333	2.28	51.2	76.4
[1	-6	-1]	(6	1	0)	(9	1	3)	3.039	1.333	2.28	49.3	87.2
[3	-18	-52]	(6	1	0)	(4	-8	3)	3.039	1.325	2.29	79.5	50.0
[3	-18	44]	(6	1	0)	(4	8	3)	3.039	1.325	2.29	67.5	54.6
[1	-6	-7]	(6	1	0)	(9	-2	3)	3.039	1.322	2.30	52.5	71.3
[1	-6	1]	(6	1	0)	(9	2	3)	3.039	1.322	2.30	48.8	87.2
[4	-24	-1]	(6	1	0)	(1	0	4)	3.039	1.317	2.31	86.0	89.3
[3	-18	-43]	(6	1	0)	(7	-6	3)	3.039	1.315	2.31	65.4	55.2
[3	-18	29]	(6	1	0)	(7	6	3)	3.039	1.315	2.31	55.6	64.9
[3	-18	55]	(6	1	0)	(-1	9	3)	3.039	1.315	2.31	87.6	48.4
[3	-18	53]	(6	1	0)	(1	9	3)	3.039	1.315	2.31	79.5	49.4
[2	-12	39]	(6	1	0)	(9	8	2)	3.039	1.313	2.31	43.2	46.6
[4	-24	-7]	(6	1	0)	(1	-1	4)	3.039	1.313	2.31	86.7	85.2
[4	-24	5]	(6	1	0)	(1	1	4)	3.039	1.313	2.31	85.3	86.5
[1	-6	-16]	(6	1	0)	(6	-7	3)	3.039	1.312	2.32	70.6	52.2
[1	-6	12]	(6	1	0)	(6	7	3)	3.039	1.312	2.32	59.6	59.8
[3	-18	-56]	(6	1	0)	(2	-9	3)	3.039	1.305	2.33	88.4	47.9
[3	-18	52]	(6	1	0)	(2	9	3)	3.039	1.305	2.33	75.5	50.0
[3	-18	-38]	(6	1	0)	(8	-5	3)	3.039	1.304	2.33	60.4	58.5
[3	-18	22]	(6	1	0)	(8	5	3)	3.039	1.304	2.33	51.9	70.4
[1	-6	-2]	(6	1	0)	(2	-1	4)	3.039	1.303	2.33	82.7	84.5
[1	-6	1]	(6	1	0)	(2	1	4)	3.039	1.303	2.33	81.3	87.2
[4	-24	-13]	(6	1	0)	(1	-2	4)	3.039	1.303	2.33	87.4	81.1
[4	-24	11]	(6	1	0)	(1	2	4)	3.039	1.303	2.33	84.6	82.4
[3	-18	53]	(6	1	0)	(5	-8	-3)	3.039	1.296	2.35	75.7	49.4

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-18	-43]	(6	1	0)	(-5	-8	3)	3.039	1.296	2.35	63.7	55.2
[4	-24	-3]	(6	1	0)	(3	0	4)	3.039	1.291	2.35	78.1	87.9
[4	-24	-9]	(6	1	0)	(3	-1	4)	3.039	1.287	2.36	78.8	83.8
[4	-24	3]	(6	1	0)	(3	1	4)	3.039	1.287	2.36	77.4	87.9
[4	-24	-19]	(6	1	0)	(1	-3	4)	3.039	1.286	2.36	88.2	77.0
[4	-24	17]	(6	1	0)	(1	3	4)	3.039	1.286	2.36	84.0	78.4
[1	-6	-11]	(6	1	0)	(9	-4	3)	3.039	1.281	2.37	55.6	61.9
[1	-6	5]	(6	1	0)	(9	4	3)	3.039	1.281	2.37	48.5	76.4
[4	-24	-15]	(6	1	0)	(3	-2	4)	3.039	1.278	2.38	79.6	79.7
[4	-24	9]	(6	1	0)	(3	2	4)	3.039	1.278	2.38	76.8	83.8
[1	-6	-5]	(6	1	0)	(2	-3	4)	3.039	1.277	2.38	84.3	76.4
[1	-6	4]	(6	1	0)	(2	3	4)	3.039	1.277	2.38	80.1	79.0
[3	-18	-49]	(6	1	0)	(7	-7	3)	3.039	1.271	2.39	67.1	51.6
[3	-18	35]	(6	1	0)	(7	7	3)	3.039	1.271	2.39	56.1	60.5
[3	-18	-58]	(6	1	0)	(4	-9	3)	3.039	1.268	2.40	80.7	46.9
[3	-18	50]	(6	1	0)	(4	9	3)	3.039	1.268	2.40	67.8	51.1
[2	-12	-5]	(6	1	0)	(4	-1	4)	3.039	1.266	2.40	75.1	83.1
[2	-12	1]	(6	1	0)	(4	1	4)	3.039	1.266	2.40	73.6	88.6
[4	-24	23]	(6	1	0)	(1	4	4)	3.039	1.263	2.41	83.4	74.4
[1	-6	-18]	(6	1	0)	(6	-8	3)	3.039	1.262	2.41	72.1	48.9
[1	-6	14]	(6	1	0)	(6	8	3)	3.039	1.262	2.41	60.1	55.9
[4	-24	-21]	(6	1	0)	(3	-3	4)	3.039	1.262	2.41	80.5	75.7
[4	-24	15]	(6	1	0)	(3	3	4)	3.039	1.262	2.41	76.3	79.7
[1	-6	7]	(6	1	0)	(9	5	3)	3.039	1.252	2.43	48.7	71.3
[4	-24	-5]	(6	1	0)	(5	0	4)	3.039	1.243	2.44	70.7	86.5
[3	-18	-59]	(6	1	0)	(5	-9	3)	3.039	1.242	2.45	77.0	46.4
[3	-18	49]	(6	1	0)	(5	9	3)	3.039	1.242	2.45	64.1	51.6
[2	-12	-11]	(6	1	0)	(4	-3	4)	3.039	1.242	2.45	76.7	75.1
[2	-12	7]	(6	1	0)	(4	3	4)	3.039	1.242	2.45	72.6	80.4
[4	-24	-11]	(6	1	0)	(5	-1	4)	3.039	1.240	2.45	71.4	82.4
[4	-24	1]	(6	1	0)	(5	1	4)	3.039	1.240	2.45	70.0	89.3
[4	-24	-27]	(6	1	0)	(3	-4	4)	3.039	1.240	2.45	81.3	71.9
[4	-24	21]	(6	1	0)	(3	4	4)	3.039	1.240	2.45	75.8	75.7
[4	-24	-31]	(6	1	0)	(1	-5	4)	3.039	1.236	2.46	89.6	69.4
[4	-24	29]	(6	1	0)	(1	5	4)	3.039	1.236	2.46	82.9	70.6
[4	-24	-17]	(6	1	0)	(5	-2	4)	3.039	1.231	2.47	72.3	78.4
[4	-24	7]	(6	1	0)	(5	2	4)	3.039	1.231	2.47	69.4	85.2
[3	-18	-50]	(6	1	0)	(8	-7	3)	3.039	1.228	2.47	63.8	51.1
[3	-18	34]	(6	1	0)	(8	7	3)	3.039	1.228	2.47	52.8	61.2
[1	-6	-8]	(6	1	0)	(2	-5	4)	3.039	1.228	2.48	85.8	68.8
[1	-6	7]	(6	1	0)	(2	5	4)	3.039	1.228	2.48	79.1	71.3
[3	-18	-55]	(6	1	0)	(7	-8	3)	3.039	1.226	2.48	68.7	48.4
[3	-18	41]	(6	1	0)	(7	8	3)	3.039	1.226	2.48	56.6	56.5
[4	-24	-23]	(6	1	0)	(5	-3	4)	3.039	1.217	2.50	73.2	74.4
[4	-24	13]	(6	1	0)	(5	3	4)	3.039	1.217	2.50	69.0	81.1
[4	-24	-33]	(6	1	0)	(3	-5	4)	3.039	1.214	2.50	82.2	68.2
[4	-24	-27]	(6	1	0)	(3	5	-4)	3.039	1.214	2.50	75.4	71.9
[1	-6	-3]	(6	1	0)	(6	-1	4)	3.039	1.211	2.51	67.9	81.7

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Anthophyllite (610) 478 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[1	-6	0]	(6	1	0)	(6	1	4)	3.039	1.211	2.51	66.5	90.0
[4	-24	37]	(6	1	0)	(-1	6	4)	3.039	1.205	2.52	89.7	65.9
[4	-24	35]	(6	1	0)	(1	6	4)	3.039	1.205	2.52	82.4	67.0
[4	-24	-29]	(6	1	0)	(5	-4	4)	3.039	1.198	2.54	74.1	70.6
[4	-24	19]	(6	1	0)	(5	4	4)	3.039	1.198	2.54	68.6	77.0
[2	-12	-17]	(6	1	0)	(4	-5	4)	3.039	1.196	2.54	78.6	67.6
[2	-12	13]	(6	1	0)	(4	5	4)	3.039	1.196	2.54	71.8	72.5
[1	-6	-6]	(6	1	0)	(6	-3	4)	3.039	1.189	2.56	69.7	73.8
[1	-6	3]	(6	1	0)	(6	3	4)	3.039	1.189	2.56	65.6	81.7
[3	-18	-56]	(6	1	0)	(8	-8	3)	3.039	1.187	2.56	65.4	47.9
[3	-18	40]	(6	1	0)	(8	8	3)	3.039	1.187	2.56	53.4	57.1
[1	-6	-17]	(6	1	0)	(9	-7	3)	3.039	1.185	2.56	60.7	50.5
[1	-6	11]	(6	1	0)	(9	7	3)	3.039	1.185	2.56	49.7	61.9
[4	-24	-39]	(6	1	0)	(3	-6	4)	3.039	1.185	2.56	83.0	64.7
[4	-24	33]	(6	1	0)	(3	6	4)	3.039	1.185	2.56	75.1	68.2
[4	-24	-7]	(6	1	0)	(7	0	4)	3.039	1.181	2.57	63.9	85.2
[3	-18	-61]	(6	1	0)	(7	-9	3)	3.039	1.179	2.58	70.2	45.4
[3	-18	47]	(6	1	0)	(7	9	3)	3.039	1.179	2.58	57.3	52.8
[4	-24	-13]	(6	1	0)	(7	-1	4)	3.039	1.178	2.58	64.6	81.1
[4	-24	-1]	(6	1	0)	(7	1	4)	3.039	1.178	2.58	63.2	89.3
[4	-24	-35]	(6	1	0)	(5	-5	4)	3.039	1.174	2.59	75.1	67.0
[4	-24	25]	(6	1	0)	(5	5	4)	3.039	1.174	2.59	68.4	73.2
[4	-24	-19]	(6	1	0)	(7	-2	4)	3.039	1.171	2.60	65.5	77.0
[4	-24	5]	(6	1	0)	(7	2	4)	3.039	1.171	2.60	62.7	86.5
[4	-24	43]	(6	1	0)	(-1	7	4)	3.039	1.171	2.60	89.1	62.5
[4	-24	41]	(6	1	0)	(1	7	4)	3.039	1.171	2.60	81.9	63.6
[1	-6	-10]	(6	1	0)	(2	7	-4)	3.039	1.164	2.61	78.4	64.2
[4	-24	-25]	(6	1	0)	(7	-3	4)	3.039	1.158	2.62	66.5	73.2
[4	-24	11]	(6	1	0)	(7	3	4)	3.039	1.158	2.62	62.3	82.4
[4	-24	-45]	(6	1	0)	(3	-7	4)	3.039	1.152	2.64	83.8	61.4
[4	-24	39]	(6	1	0)	(3	7	4)	3.039	1.152	2.64	74.9	64.7
[1	-6	-9]	(6	1	0)	(6	-5	4)	3.039	1.149	2.64	71.8	66.4
[1	-6	6]	(6	1	0)	(6	5	4)	3.039	1.149	2.64	65.1	73.8
[1	-6	-19]	(6	1	0)	(9	-8	3)	3.039	1.148	2.65	62.4	47.4
[1	-6	13]	(6	1	0)	(9	8	3)	3.039	1.148	2.65	50.4	57.8
[4	-24	-41]	(6	1	0)	(5	-6	4)	3.039	1.148	2.65	76.1	63.6
[4	-24	31]	(6	1	0)	(5	6	4)	3.039	1.148	2.65	68.2	69.4
[3	-18	46]	(6	1	0)	(8	9	3)	3.039	1.145	2.65	54.1	53.4
[2	-12	-7]	(6	1	0)	(8	-1	4)	3.039	1.144	2.66	61.5	80.4
[2	-12	-1]	(6	1	0)	(8	1	4)	3.039	1.144	2.66	60.1	88.6
[4	-24	-31]	(6	1	0)	(7	-4	4)	3.039	1.142	2.66	67.5	69.4
[4	-24	17]	(6	1	0)	(7	4	4)	3.039	1.142	2.66	62.0	78.4
[2	-12	-23]	(6	1	0)	(4	-7	4)	3.039	1.137	2.67	80.4	60.9
[2	-12	19]	(6	1	0)	(4	7	4)	3.039	1.137	2.67	71.5	65.3
[4	-24	47]	(6	1	0)	(1	8	4)	3.039	1.135	2.68	81.6	60.3
[2	-12	-13]	(6	1	0)	(8	-3	4)	3.039	1.126	2.70	63.4	72.5
[2	-12	5]	(6	1	0)	(8	3	4)	3.039	1.126	2.70	59.2	83.1
[4	-24	-37]	(6	1	0)	(7	-5	4)	3.039	1.121	2.71	68.6	65.9

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Anthophyllite (610) 478 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[4	-24	23]	(6	1	0)	(7	5	4)	3.039	1.121	2.71	61.9	74.4
[4	-24	-47]	(6	1	0)	(5	-7	4)	3.039	1.118	2.72	77.1	60.3
[4	-24	37]	(6	1	0)	(5	7	4)	3.039	1.118	2.72	68.2	65.9
[4	-24	-51]	(6	1	0)	(3	-8	4)	3.039	1.118	2.72	84.6	58.3
[4	-24	-45]	(6	1	0)	(3	8	-4)	3.039	1.118	2.72	74.7	61.4
[4	-24	-9]	(6	1	0)	(9	0	4)	3.039	1.111	2.74	57.8	83.8
[4	-24	-3]	(6	1	0)	(9	1	4)	3.039	1.109	2.74	57.2	87.9
[4	-24	-21]	(6	1	0)	(9	-2	4)	3.039	1.102	2.76	59.5	75.7
[4	-24	3]	(6	1	0)	(9	2	4)	3.039	1.102	2.76	56.7	87.9
[4	-24	-43]	(6	1	0)	(7	-6	4)	3.039	1.098	2.77	69.7	62.5
[4	-24	29]	(6	1	0)	(7	6	4)	3.039	1.098	2.77	61.8	70.6
[4	-24	55]	(6	1	0)	(-1	9	4)	3.039	1.098	2.77	88.0	56.3
[4	-24	-53]	(6	1	0)	(1	9	-4)	3.039	1.098	2.77	81.2	57.3
[1	-6	12]	(6	1	0)	(-6	7	4)	3.039	1.096	2.77	73.9	59.8
[1	-6	9]	(6	1	0)	(6	7	4)	3.039	1.096	2.77	65.0	66.4
[1	-6	-14]	(6	1	0)	(2	-9	4)	3.039	1.092	2.78	88.7	55.9
[1	-6	13]	(6	1	0)	(2	9	4)	3.039	1.092	2.78	77.9	57.8
[4	-24	-27]	(6	1	0)	(9	-3	4)	3.039	1.092	2.78	60.5	71.9
[4	-24	9]	(6	1	0)	(9	3	4)	3.039	1.092	2.78	56.3	83.8
[2	-12	19]	(6	1	0)	(8	-5	-4)	3.039	1.092	2.78	65.6	65.3
[2	-12	-11]	(6	1	0)	(-8	-5	4)	3.039	1.092	2.78	58.9	75.1
[4	-24	-53]	(6	1	0)	(5	-8	4)	3.039	1.087	2.80	78.1	57.3
[4	-24	43]	(6	1	0)	(5	8	4)	3.039	1.087	2.80	68.2	62.5
[4	-24	-57]	(6	1	0)	(3	-9	4)	3.039	1.083	2.81	85.4	55.4
[4	-24	51]	(6	1	0)	(3	9	4)	3.039	1.083	2.81	74.6	58.3
[4	-24	-33]	(6	1	0)	(9	-4	4)	3.039	1.078	2.82	61.6	68.2
[4	-24	15]	(6	1	0)	(9	4	4)	3.039	1.078	2.82	56.1	79.7
[4	-24	-49]	(6	1	0)	(7	-7	4)	3.039	1.072	2.83	70.8	59.3
[4	-24	35]	(6	1	0)	(7	7	4)	3.039	1.072	2.83	61.9	67.0
[2	-12	-29]	(6	1	0)	(4	-9	4)	3.039	1.070	2.84	82.1	54.9
[2	-12	25]	(6	1	0)	(4	9	4)	3.039	1.070	2.84	71.4	58.8
[4	-24	-39]	(6	1	0)	(9	-5	4)	3.039	1.061	2.86	62.7	64.7
[4	-24	21]	(6	1	0)	(9	5	4)	3.039	1.061	2.86	56.0	75.7
[5	-30	-1]	(6	1	0)	(1	0	5)	3.039	1.054	2.88	86.8	89.4
[4	-24	59]	(6	1	0)	(5	-9	-4)	3.039	1.054	2.88	79.0	54.4
[4	-24	-49]	(6	1	0)	(-5	-9	4)	3.039	1.054	2.88	68.2	59.3
[5	-30	6]	(6	1	0)	(0	1	5)	3.039	1.054	2.88	89.4	86.7
[5	-30	-7]	(6	1	0)	(1	-1	5)	3.039	1.052	2.89	87.4	86.1
[1	-6	1]	(6	1	0)	(1	1	5)	3.039	1.052	2.89	86.2	87.2
[5	-30	-2]	(6	1	0)	(2	0	5)	3.039	1.049	2.90	83.6	88.9
[5	-30	-8]	(6	1	0)	(2	-1	5)	3.039	1.047	2.90	84.2	85.6
[5	-30	4]	(6	1	0)	(2	1	5)	3.039	1.047	2.90	83.0	87.8
[5	-30	-13]	(6	1	0)	(1	-2	5)	3.039	1.047	2.90	87.9	82.8
[5	-30	11]	(6	1	0)	(1	2	5)	3.039	1.047	2.90	85.7	83.9
[2	-12	-25]	(6	1	0)	(8	-7	4)	3.039	1.046	2.90	67.9	58.8
[2	-12	17]	(6	1	0)	(8	7	4)	3.039	1.046	2.90	59.0	67.6
[4	-24	-55]	(6	1	0)	(7	-8	4)	3.039	1.044	2.91	71.9	56.3
[4	-24	41]	(6	1	0)	(7	8	4)	3.039	1.044	2.91	62.1	63.6

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Anthophyllite (610) 478 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[5	-30	-14]	(6	1	0)	(2	-2	5)	3.039	1.042	2.92	84.8	82.3
[1	-6	2]	(6	1	0)	(2	2	5)	3.039	1.042	2.92	82.5	84.5
[4	-24	-45]	(6	1	0)	(9	-6	4)	3.039	1.041	2.92	63.9	61.4
[4	-24	27]	(6	1	0)	(9	6	4)	3.039	1.041	2.92	56.1	71.9
[5	-30	-3]	(6	1	0)	(3	0	5)	3.039	1.041	2.92	80.4	88.3
[5	-30	18]	(6	1	0)	(0	3	5)	3.039	1.040	2.92	88.3	80.1
[5	-30	-9]	(6	1	0)	(3	-1	5)	3.039	1.039	2.92	81.0	85.0
[5	-30	3]	(6	1	0)	(3	1	5)	3.039	1.039	2.92	79.9	88.3
[5	-30	-19]	(6	1	0)	(1	-3	5)	3.039	1.038	2.93	88.5	79.6
[5	-30	17]	(6	1	0)	(1	3	5)	3.039	1.038	2.93	85.1	80.6
[1	-6	-15]	(6	1	0)	(6	-9	4)	3.039	1.036	2.93	76.0	54.0
[1	-6	12]	(6	1	0)	(6	9	4)	3.039	1.036	2.93	65.2	59.8
[1	-6	-3]	(6	1	0)	(3	-2	5)	3.039	1.034	2.94	81.6	81.7
[5	-30	9]	(6	1	0)	(3	2	5)	3.039	1.034	2.94	79.3	85.0
[1	-6	-4]	(6	1	0)	(2	-3	5)	3.039	1.033	2.94	85.4	79.0
[5	-30	16]	(6	1	0)	(2	3	5)	3.039	1.033	2.94	82.0	81.2
[5	-30	-4]	(6	1	0)	(4	0	5)	3.039	1.030	2.95	77.3	87.8
[1	-6	-2]	(6	1	0)	(4	-1	5)	3.039	1.028	2.96	77.9	84.5
[5	-30	2]	(6	1	0)	(4	1	5)	3.039	1.028	2.96	76.8	88.9
[1	-6	-5]	(6	1	0)	(1	-4	5)	3.039	1.026	2.96	89.1	76.4
[5	-30	23]	(6	1	0)	(1	4	5)	3.039	1.026	2.96	84.6	77.4
[5	-30	-21]	(6	1	0)	(3	-3	5)	3.039	1.025	2.96	82.3	78.5
[1	-6	3]	(6	1	0)	(3	3	5)	3.039	1.025	2.96	78.9	81.7
[5	-30	-16]	(6	1	0)	(4	-2	5)	3.039	1.023	2.97	78.5	81.2
[5	-30	8]	(6	1	0)	(4	2	5)	3.039	1.023	2.97	76.3	85.6
[5	-30	-26]	(6	1	0)	(2	-4	5)	3.039	1.021	2.97	86.0	75.9
[5	-30	22]	(6	1	0)	(2	4	5)	3.039	1.021	2.97	81.5	78.0
[4	-24	33]	(6	1	0)	(9	7	4)	3.039	1.019	2.98	56.2	68.2
[4	-24	-61]	(6	1	0)	(7	-9	4)	3.039	1.015	2.99	73.0	53.5
[4	-24	47]	(6	1	0)	(7	9	4)	3.039	1.015	2.99	62.3	60.3
[5	-30	-22]	(6	1	0)	(4	-3	5)	3.039	1.015	3.00	79.2	78.0
[5	-30	14]	(6	1	0)	(4	3	5)	3.039	1.015	3.00	75.8	82.3
[5	-30	-11]	(6	1	0)	(5	-1	5)	3.039	1.014	3.00	74.9	83.9
[5	-30	1]	(6	1	0)	(5	1	5)	3.039	1.014	3.00	73.8	89.4
[5	-30	27]	(6	1	0)	(3	-4	-5)	3.039	1.014	3.00	82.9	75.3
[5	-30	-21]	(6	1	0)	(-3	-4	5)	3.039	1.014	3.00	78.4	78.5
[5	-30	-31]	(6	1	0)	(1	-5	5)	3.039	1.011	3.00	89.7	73.3
[5	-30	29]	(6	1	0)	(1	5	5)	3.039	1.011	3.00	84.2	74.3
[5	-30	-17]	(6	1	0)	(5	-2	5)	3.039	1.009	3.01	75.5	80.6
[5	-30	7]	(6	1	0)	(5	2	5)	3.039	1.009	3.01	73.3	86.1
[5	-30	-32]	(6	1	0)	(2	-5	5)	3.039	1.007	3.02	86.6	72.8
[5	-30	28]	(6	1	0)	(2	5	5)	3.039	1.007	3.02	81.1	74.8
[5	-30	-28]	(6	1	0)	(4	-4	5)	3.039	1.003	3.03	79.9	74.8
[1	-6	4]	(6	1	0)	(4	4	5)	3.039	1.003	3.03	75.4	79.0
[5	-30	-23]	(6	1	0)	(5	-3	5)	3.039	1.001	3.04	76.2	77.4
[5	-30	13]	(6	1	0)	(5	3	5)	3.039	1.001	3.04	72.8	82.8

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Anthophyllite (620) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[1	-3	-1]	(6	2	0)	(1	0	1)	2.915	5.077	0.57	75.0	84.7
[1	-3	3]	(6	2	0)	(0	1	1)	2.915	5.064	0.58	84.7	74.4
[1	-3	-4]	(6	2	0)	(1	-1	1)	2.915	4.885	0.60	80.7	69.6
[1	-3	2]	(6	2	0)	(1	1	1)	2.915	4.885	0.60	70.2	79.5
[1	-3	-2]	(6	2	0)	(2	0	1)	2.915	4.586	0.64	62.1	79.5
[1	-3	-5]	(6	2	0)	(2	-1	1)	2.915	4.442	0.66	68.1	65.1
[1	-3	1]	(6	2	0)	(2	1	1)	2.915	4.442	0.66	57.7	84.7
[1	-3	-7]	(6	2	0)	(1	-2	1)	2.915	4.416	0.66	86.3	56.9
[1	-3	5]	(6	2	0)	(1	2	1)	2.915	4.416	0.66	67.3	65.1
[1	-3	-8]	(6	2	0)	(2	-2	1)	2.915	4.081	0.71	74.4	53.4
[1	-3	-4]	(6	2	0)	(2	2	-1)	2.915	4.081	0.71	55.6	69.6
[1	-3	-3]	(6	2	0)	(3	0	1)	2.915	4.011	0.73	52.1	74.4
[1	-3	9]	(6	2	0)	(0	3	1)	2.915	3.954	0.74	77.5	50.1
[1	-3	-6]	(6	2	0)	(3	-1	1)	2.915	3.914	0.74	58.1	60.8
[1	-3	0]	(6	2	0)	(3	1	1)	2.915	3.914	0.74	47.8	90.0
[1	-3	10]	(6	2	0)	(-1	3	1)	2.915	3.867	0.75	89.2	47.1
[1	-3	8]	(6	2	0)	(1	3	1)	2.915	3.867	0.75	65.9	53.4
[1	-3	-9]	(6	2	0)	(3	-2	1)	2.915	3.660	0.80	64.7	50.1
[1	-3	3]	(6	2	0)	(3	2	1)	2.915	3.660	0.80	46.0	74.4
[1	-3	7]	(6	2	0)	(2	3	1)	2.915	3.636	0.80	55.2	56.9
[1	-3	-4]	(6	2	0)	(4	0	1)	2.915	3.479	0.84	44.7	69.6
[1	-3	-7]	(6	2	0)	(4	-1	1)	2.915	3.415	0.85	50.5	56.9
[1	-3	-1]	(6	2	0)	(4	1	1)	2.915	3.415	0.85	40.5	84.7
[1	-3	6]	(6	2	0)	(3	3	1)	2.915	3.329	0.88	46.2	60.8
[1	-3	10]	(6	2	0)	(4	-2	-1)	2.915	3.243	0.90	57.0	47.1
[1	-3	-2]	(6	2	0)	(-4	-2	1)	2.915	3.243	0.90	38.7	79.5
[1	-3	10]	(6	2	0)	(2	4	1)	2.915	3.203	0.91	55.9	47.1
[1	-3	-5]	(6	2	0)	(5	0	1)	2.915	3.030	0.96	39.3	65.1
[1	-3	5]	(6	2	0)	(4	3	1)	2.915	3.005	0.97	38.9	65.1
[1	-3	-8]	(6	2	0)	(5	-1	1)	2.915	2.988	0.98	44.8	53.4
[1	-3	-2]	(6	2	0)	(5	1	1)	2.915	2.988	0.98	35.1	79.5
[1	-3	-9]	(6	2	0)	(3	4	-1)	2.915	2.987	0.98	47.5	50.1
[1	-3	-1]	(6	2	0)	(-5	-2	1)	2.915	2.870	1.02	33.1	84.7
[1	-3	-8]	(6	2	0)	(4	4	-1)	2.915	2.747	1.06	40.4	53.4
[1	-3	-4]	(6	2	0)	(5	3	-1)	2.915	2.702	1.08	33.1	69.6
[1	-3	-6]	(6	2	0)	(6	0	1)	2.915	2.663	1.09	35.3	60.8
[1	-3	0]	(6	2	0)	(0	0	2)	2.915	2.640	1.10	90.0	90.0
[1	-3	9]	(6	2	0)	(6	-1	-1)	2.915	2.634	1.11	40.6	50.1
[1	-3	-3]	(6	2	0)	(6	1	1)	2.915	2.634	1.11	31.2	74.4
[2	-6	-1]	(6	2	0)	(1	0	2)	2.915	2.614	1.12	82.3	87.3
[1	-3	-2]	(6	2	0)	(1	-1	2)	2.915	2.586	1.13	85.1	79.5
[1	-3	1]	(6	2	0)	(1	1	2)	2.915	2.586	1.13	79.7	84.7
[1	-3	0]	(6	2	0)	(6	2	1)	2.915	2.552	1.14	28.9	90.0
[2	-6	-5]	(6	2	0)	(2	-1	2)	2.915	2.513	1.16	77.8	76.9
[2	-6	1]	(6	2	0)	(2	1	2)	2.915	2.513	1.16	72.4	87.3
[1	-3	-7]	(6	2	0)	(5	4	-1)	2.915	2.509	1.16	34.5	56.9
[2	-6	-7]	(6	2	0)	(1	-2	2)	2.915	2.509	1.16	87.9	72.0
[2	-6	5]	(6	2	0)	(1	2	2)	2.915	2.509	1.16	77.3	76.9

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Anthophyllite (620) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[1	-3	3]	(6	2	0)	(6	3	1)	2.915	2.431	1.20	28.6	74.4
[2	-6	-3]	(6	2	0)	(3	0	2)	2.915	2.427	1.20	68.2	82.1
[1	-3	-3]	(6	2	0)	(3	-1	2)	2.915	2.405	1.21	71.0	74.4
[1	-3	0]	(6	2	0)	(3	1	2)	2.915	2.405	1.21	65.6	90.0
[1	-3	5]	(6	2	0)	(-1	3	2)	2.915	2.394	1.22	89.5	65.1
[1	-3	-4]	(6	2	0)	(1	3	-2)	2.915	2.394	1.22	75.3	69.6
[1	-3	-7]	(6	2	0)	(7	0	1)	2.915	2.363	1.23	32.3	56.9
[1	-3	-10]	(6	2	0)	(7	-1	1)	2.915	2.343	1.24	37.3	47.1
[1	-3	-4]	(6	2	0)	(7	1	1)	2.915	2.343	1.24	28.3	69.6
[2	-6	9]	(6	2	0)	(3	-2	-2)	2.915	2.342	1.24	74.1	67.3
[2	-6	-3]	(6	2	0)	(-3	-2	2)	2.915	2.342	1.24	63.6	82.1
[2	-6	-11]	(6	2	0)	(2	-3	2)	2.915	2.336	1.25	83.6	62.9
[2	-6	7]	(6	2	0)	(2	3	2)	2.915	2.336	1.25	68.5	72.0
[1	-3	10]	(6	2	0)	(5	5	1)	2.915	2.313	1.26	36.7	47.1
[1	-3	-6]	(6	2	0)	(-6	-4	1)	2.915	2.288	1.27	29.8	60.8
[1	-3	-1]	(6	2	0)	(7	2	1)	2.915	2.285	1.28	25.8	84.7
[2	-6	-7]	(6	2	0)	(4	-1	2)	2.915	2.274	1.28	64.9	72.0
[2	-6	-1]	(6	2	0)	(4	1	2)	2.915	2.274	1.28	59.6	87.3
[1	-3	6]	(6	2	0)	(0	4	2)	2.915	2.274	1.28	80.5	60.8
[2	-6	13]	(6	2	0)	(-1	4	2)	2.915	2.257	1.29	87.2	58.9
[2	-6	11]	(6	2	0)	(1	4	2)	2.915	2.257	1.29	73.8	62.9
[1	-3	-6]	(6	2	0)	(3	-3	2)	2.915	2.248	1.30	77.2	60.8
[1	-3	3]	(6	2	0)	(3	3	2)	2.915	2.248	1.30	62.1	74.4
[2	-6	-5]	(6	2	0)	(-4	-3	2)	2.915	2.140	1.36	56.3	76.9
[1	-3	-9]	(6	2	0)	(6	5	-1)	2.915	2.136	1.36	31.8	50.1
[1	-3	4]	(6	2	0)	(5	-1	-2)	2.915	2.134	1.37	59.6	69.6
[1	-3	-1]	(6	2	0)	(5	1	2)	2.915	2.134	1.37	54.3	84.7
[2	-6	-15]	(6	2	0)	(3	-4	2)	2.915	2.133	1.37	80.1	55.1
[2	-6	9]	(6	2	0)	(3	4	2)	2.915	2.133	1.37	61.2	67.3
[1	-3	-8]	(6	2	0)	(8	0	1)	2.915	2.118	1.38	30.0	53.4
[1	-3	8]	(6	2	0)	(-1	5	2)	2.915	2.111	1.38	85.2	53.4
[1	-3	7]	(6	2	0)	(1	5	2)	2.915	2.111	1.38	72.5	56.9
[1	-3	-5]	(6	2	0)	(8	1	1)	2.915	2.104	1.39	26.1	65.1
[1	-3	5]	(6	2	0)	(7	4	1)	2.915	2.090	1.39	25.9	65.1
[2	-6	-11]	(6	2	0)	(5	-2	2)	2.915	2.090	1.40	62.7	62.9
[2	-6	1]	(6	2	0)	(5	2	2)	2.915	2.090	1.40	52.4	87.3
[2	-6	-17]	(6	2	0)	(2	-5	2)	2.915	2.071	1.41	88.7	51.7
[2	-6	13]	(6	2	0)	(2	5	2)	2.915	2.071	1.41	66.4	58.9
[1	-3	-2]	(6	2	0)	(8	2	1)	2.915	2.061	1.41	23.4	79.5
[1	-3	-7]	(6	2	0)	(5	-3	2)	2.915	2.022	1.44	66.0	56.9
[1	-3	2]	(6	2	0)	(5	3	2)	2.915	2.022	1.44	51.2	79.5
[1	-3	-9]	(6	2	0)	(3	-5	2)	2.915	2.009	1.45	82.8	50.1
[1	-3	6]	(6	2	0)	(3	5	2)	2.915	2.009	1.45	60.6	60.8
[1	-3	1]	(6	2	0)	(8	3	1)	2.915	1.996	1.46	22.3	84.7
[2	-6	-9]	(6	2	0)	(6	-1	2)	2.915	1.993	1.46	54.9	67.3
[2	-6	-3]	(6	2	0)	(6	1	2)	2.915	1.993	1.46	49.7	82.1
[1	-3	8]	(6	2	0)	(7	5	1)	2.915	1.972	1.48	27.7	53.4
[2	-6	19]	(6	2	0)	(-1	6	2)	2.915	1.966	1.48	83.4	48.6

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Anthophyllite (620) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[2	-6	17]	(6	2	0)	(1	6	2)	2.915	1.966	1.48	71.6	51.7
[2	-6	-17]	(6	2	0)	(5	-4	2)	2.915	1.937	1.50	69.3	51.7
[2	-6	-7]	(6	2	0)	(5	4	-2)	2.915	1.937	1.50	50.5	72.0
[2	-6	-19]	(6	2	0)	(4	-5	2)	2.915	1.931	1.51	77.3	48.6
[2	-6	11]	(6	2	0)	(4	5	2)	2.915	1.931	1.51	55.2	62.9
[1	-3	-9]	(6	2	0)	(9	0	1)	2.915	1.916	1.52	28.2	50.1
[1	-3	4]	(6	2	0)	(8	4	1)	2.915	1.915	1.52	22.8	69.6
[1	-3	-6]	(6	2	0)	(9	1	1)	2.915	1.905	1.53	24.4	60.8
[2	-6	-15]	(6	2	0)	(6	-3	2)	2.915	1.901	1.53	61.4	55.1
[2	-6	3]	(6	2	0)	(6	3	2)	2.915	1.901	1.53	46.6	82.1
[2	-6	-21]	(6	2	0)	(3	-6	2)	2.915	1.883	1.55	85.2	45.7
[2	-6	-15]	(6	2	0)	(3	6	-2)	2.915	1.883	1.55	60.4	55.1
[1	-3	3]	(6	2	0)	(-9	-2	1)	2.915	1.873	1.56	21.6	74.4
[2	-6	-7]	(6	2	0)	(7	0	2)	2.915	1.868	1.56	48.1	72.0
[1	-3	-5]	(6	2	0)	(7	-1	2)	2.915	1.858	1.57	50.9	65.1
[1	-3	-2]	(6	2	0)	(7	1	2)	2.915	1.858	1.57	45.7	79.5
[1	-3	-10]	(6	2	0)	(5	-5	2)	2.915	1.843	1.58	72.4	47.1
[1	-3	5]	(6	2	0)	(5	5	2)	2.915	1.843	1.58	50.3	65.1
[2	-6	-13]	(6	2	0)	(7	-2	2)	2.915	1.828	1.59	54.0	58.9
[2	-6	-1]	(6	2	0)	(7	2	2)	2.915	1.828	1.59	43.9	87.3
[1	-3	10]	(6	2	0)	(1	7	2)	2.915	1.828	1.59	71.0	47.1
[1	-3	0]	(6	2	0)	(9	3	1)	2.915	1.824	1.60	20.2	90.0
[1	-3	-7]	(6	2	0)	(8	5	-1)	2.915	1.823	1.60	24.3	56.9
[2	-6	19]	(6	2	0)	(2	7	2)	2.915	1.802	1.62	65.6	48.6
[1	-3	-8]	(6	2	0)	(7	-3	2)	2.915	1.782	1.64	57.3	53.4
[1	-3	1]	(6	2	0)	(7	3	2)	2.915	1.782	1.64	42.7	84.7
[1	-3	3]	(6	2	0)	(9	4	1)	2.915	1.761	1.66	20.3	74.4
[1	-3	-9]	(6	2	0)	(3	7	-2)	2.915	1.760	1.66	60.4	50.1
[3	-9	1]	(6	2	0)	(-1	0	3)	2.915	1.752	1.66	84.9	88.2
[1	-3	1]	(6	2	0)	(0	1	3)	2.915	1.752	1.66	88.2	84.7
[2	-6	-21]	(6	2	0)	(6	-5	2)	2.915	1.750	1.67	67.8	45.7
[2	-6	-9]	(6	2	0)	(6	5	-2)	2.915	1.750	1.67	45.9	67.3
[3	-9	4]	(6	2	0)	(-1	1	3)	2.915	1.744	1.67	86.7	82.9
[3	-9	2]	(6	2	0)	(1	1	3)	2.915	1.744	1.67	83.1	86.5
[2	-6	13]	(6	2	0)	(5	6	2)	2.915	1.744	1.67	50.5	58.9
[2	-6	-11]	(6	2	0)	(8	-1	2)	2.915	1.731	1.68	47.4	62.9
[2	-6	-5]	(6	2	0)	(8	1	2)	2.915	1.731	1.68	42.3	76.9
[3	-9	-2]	(6	2	0)	(2	0	3)	2.915	1.729	1.69	79.8	86.5
[1	-3	10]	(6	2	0)	(8	6	1)	2.915	1.727	1.69	26.5	47.1
[2	-6	-19]	(6	2	0)	(7	-4	2)	2.915	1.724	1.69	60.6	48.6
[2	-6	5]	(6	2	0)	(7	4	2)	2.915	1.724	1.69	42.1	76.9
[3	-9	-5]	(6	2	0)	(2	-1	3)	2.915	1.721	1.69	81.7	81.2
[3	-9	1]	(6	2	0)	(2	1	3)	2.915	1.721	1.69	78.0	88.2
[3	-9	-7]	(6	2	0)	(1	-2	3)	2.915	1.719	1.70	88.6	77.8
[3	-9	5]	(6	2	0)	(1	2	3)	2.915	1.719	1.70	81.3	81.2
[3	-9	8]	(6	2	0)	(-2	2	3)	2.915	1.698	1.72	83.6	76.1
[3	-9	-4]	(6	2	0)	(2	2	-3)	2.915	1.698	1.72	76.4	82.9
[1	-3	-6]	(6	2	0)	(9	5	-1)	2.915	1.689	1.73	21.5	60.8

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[1	-3	0]	(6	2	0)	(3	1	3)	2.915	1.685	1.73	73.2	90.0
[3	-9	10]	(6	2	0)	(-1	3	3)	2.915	1.681	1.73	89.7	72.8
[3	-9	8]	(6	2	0)	(1	3	3)	2.915	1.681	1.73	79.8	76.1
[2	-6	-17]	(6	2	0)	(8	-3	2)	2.915	1.670	1.75	53.7	51.7
[2	-6	1]	(6	2	0)	(8	3	2)	2.915	1.670	1.75	39.3	87.3
[3	-9	-11]	(6	2	0)	(2	-3	3)	2.915	1.661	1.76	85.5	71.2
[3	-9	-7]	(6	2	0)	(2	3	-3)	2.915	1.661	1.76	74.9	77.8
[1	-3	4]	(6	2	0)	(7	5	2)	2.915	1.656	1.76	42.0	69.6
[1	-3	8]	(6	2	0)	(5	7	2)	2.915	1.645	1.77	51.0	53.4
[2	-6	21]	(6	2	0)	(3	8	2)	2.915	1.645	1.77	60.5	45.7
[3	-9	-4]	(6	2	0)	(4	0	3)	2.915	1.645	1.77	70.4	82.9
[3	-9	-7]	(6	2	0)	(4	-1	3)	2.915	1.638	1.78	72.2	77.8
[3	-9	-1]	(6	2	0)	(4	1	3)	2.915	1.638	1.78	68.6	88.2
[3	-9	13]	(6	2	0)	(-1	4	3)	2.915	1.631	1.79	88.0	68.1
[3	-9	11]	(6	2	0)	(1	4	3)	2.915	1.631	1.79	78.3	71.2
[3	-9	2]	(6	2	0)	(4	2	3)	2.915	1.618	1.80	67.1	86.5
[1	-3	-6]	(6	2	0)	(9	-1	2)	2.915	1.615	1.80	44.5	60.8
[1	-3	-3]	(6	2	0)	(9	1	2)	2.915	1.615	1.80	39.4	74.4
[3	-9	-14]	(6	2	0)	(2	-4	3)	2.915	1.613	1.81	87.3	66.5
[3	-9	10]	(6	2	0)	(2	4	3)	2.915	1.613	1.81	73.6	72.8
[1	-3	9]	(6	2	0)	(9	6	1)	2.915	1.612	1.81	23.5	50.1
[2	-6	-3]	(6	2	0)	(9	2	2)	2.915	1.596	1.83	37.6	82.1
[3	-9	-5]	(6	2	0)	(5	0	3)	2.915	1.589	1.83	66.0	81.2
[3	-9	13]	(6	2	0)	(4	-3	-3)	2.915	1.586	1.84	76.3	68.1
[3	-9	-5]	(6	2	0)	(-4	-3	3)	2.915	1.586	1.84	65.7	81.2
[3	-9	-8]	(6	2	0)	(5	-1	3)	2.915	1.583	1.84	67.9	76.1
[3	-9	-2]	(6	2	0)	(5	1	3)	2.915	1.583	1.84	64.3	86.5
[2	-6	11]	(6	2	0)	(7	6	2)	2.915	1.583	1.84	42.3	62.9
[1	-3	-5]	(6	2	0)	(3	-4	3)	2.915	1.583	1.84	82.7	65.1
[1	-3	3]	(6	2	0)	(3	4	3)	2.915	1.583	1.84	69.0	74.4
[1	-3	5]	(6	2	0)	(0	5	3)	2.915	1.579	1.85	81.7	65.1
[2	-6	15]	(6	2	0)	(6	7	2)	2.915	1.578	1.85	46.8	55.1
[3	-9	16]	(6	2	0)	(-1	5	3)	2.915	1.574	1.85	86.4	63.6
[3	-9	14]	(6	2	0)	(1	5	3)	2.915	1.574	1.85	77.1	66.5
[1	-3	-9]	(6	2	0)	(9	-3	2)	2.915	1.565	1.86	50.6	50.1
[1	-3	0]	(6	2	0)	(9	3	2)	2.915	1.565	1.86	36.4	90.0
[3	-9	-11]	(6	2	0)	(5	-2	3)	2.915	1.565	1.86	69.9	71.2
[3	-9	1]	(6	2	0)	(5	2	3)	2.915	1.565	1.86	62.8	88.2
[2	-6	-7]	(6	2	0)	(8	5	-2)	2.915	1.565	1.86	38.6	72.0
[3	-9	-17]	(6	2	0)	(2	-5	3)	2.915	1.557	1.87	89.0	62.2
[3	-9	13]	(6	2	0)	(2	5	3)	2.915	1.557	1.87	72.5	68.1
[2	-6	19]	(6	2	0)	(5	8	2)	2.915	1.550	1.88	51.6	48.6
[3	-9	-16]	(6	2	0)	(4	-4	3)	2.915	1.544	1.89	78.3	63.6
[3	-9	8]	(6	2	0)	(4	4	3)	2.915	1.544	1.89	64.7	76.1
[3	-9	-14]	(6	2	0)	(5	-3	3)	2.915	1.536	1.90	72.0	66.5
[3	-9	4]	(6	2	0)	(5	3	3)	2.915	1.536	1.90	61.6	82.9
[1	-3	-6]	(6	2	0)	(3	-5	3)	2.915	1.530	1.91	84.5	60.8
[1	-3	4]	(6	2	0)	(3	5	3)	2.915	1.530	1.91	68.1	69.6

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Anthophyllite (620) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[2	-6	-21]	(6	2	0)	(9	-4	2)	2.915	1.525	1.91	53.8	45.7
[2	-6	3]	(6	2	0)	(9	4	2)	2.915	1.525	1.91	35.7	82.1
[1	-3	-3]	(6	2	0)	(6	-1	3)	2.915	1.523	1.91	63.9	74.4
[1	-3	-1]	(6	2	0)	(6	1	3)	2.915	1.523	1.91	60.3	84.7
[3	-9	19]	(6	2	0)	(-1	6	3)	2.915	1.511	1.93	85.0	59.5
[3	-9	17]	(6	2	0)	(1	6	3)	2.915	1.511	1.93	76.0	62.2
[1	-3	7]	(6	2	0)	(7	7	2)	2.915	1.508	1.93	43.0	56.9
[1	-3	-4]	(6	2	0)	(6	-2	3)	2.915	1.507	1.93	66.0	69.6
[1	-3	0]	(6	2	0)	(6	2	3)	2.915	1.507	1.93	58.9	90.0
[3	-9	-7]	(6	2	0)	(5	4	-3)	2.915	1.498	1.95	60.5	77.8
[3	-9	20]	(6	2	0)	(-2	6	3)	2.915	1.496	1.95	89.4	58.2
[3	-9	-16]	(6	2	0)	(2	6	-3)	2.915	1.496	1.95	71.6	63.6
[3	-9	19]	(6	2	0)	(-4	5	3)	2.915	1.495	1.95	80.2	59.5
[3	-9	11]	(6	2	0)	(4	5	3)	2.915	1.495	1.95	63.8	71.2
[1	-3	-3]	(6	2	0)	(9	5	-2)	2.915	1.477	1.97	35.5	74.4
[3	-9	-10]	(6	2	0)	(7	-1	3)	2.915	1.460	2.00	60.3	72.8
[3	-9	-4]	(6	2	0)	(7	1	3)	2.915	1.460	2.00	56.7	82.9
[3	-9	-20]	(6	2	0)	(5	-5	3)	2.915	1.453	2.01	76.2	58.2
[3	-9	10]	(6	2	0)	(5	5	3)	2.915	1.453	2.01	59.8	72.8
[1	-3	7]	(6	2	0)	(0	7	3)	2.915	1.450	2.01	79.4	56.9
[1	-3	6]	(6	2	0)	(6	-4	-3)	2.915	1.446	2.02	70.2	60.8
[1	-3	-2]	(6	2	0)	(-6	-4	3)	2.915	1.446	2.02	56.7	79.5
[3	-9	-13]	(6	2	0)	(7	-2	3)	2.915	1.446	2.02	62.3	68.1
[3	-9	-1]	(6	2	0)	(7	2	3)	2.915	1.446	2.02	55.3	88.2
[3	-9	22]	(6	2	0)	(-1	7	3)	2.915	1.445	2.02	83.7	55.7
[3	-9	20]	(6	2	0)	(1	7	3)	2.915	1.445	2.02	75.1	58.2
[3	-9	-22]	(6	2	0)	(4	-6	3)	2.915	1.440	2.02	82.1	55.7
[3	-9	14]	(6	2	0)	(4	6	3)	2.915	1.440	2.02	63.1	66.5
[2	-6	13]	(6	2	0)	(8	7	2)	2.915	1.438	2.03	39.5	58.9
[2	-6	17]	(6	2	0)	(7	8	2)	2.915	1.434	2.03	43.8	51.7
[3	-9	23]	(6	2	0)	(-2	7	3)	2.915	1.432	2.04	87.9	54.5
[3	-9	19]	(6	2	0)	(2	7	3)	2.915	1.432	2.04	70.8	59.5
[2	-6	9]	(6	2	0)	(9	6	2)	2.915	1.425	2.05	35.8	67.3
[3	-9	-16]	(6	2	0)	(7	-3	3)	2.915	1.423	2.05	64.5	63.6
[3	-9	2]	(6	2	0)	(7	3	3)	2.915	1.423	2.05	54.1	86.5
[2	-6	21]	(6	2	0)	(6	9	2)	2.915	1.412	2.06	48.4	45.7
[1	-3	-8]	(6	2	0)	(3	-7	3)	2.915	1.411	2.07	87.9	53.4
[1	-3	6]	(6	2	0)	(3	7	3)	2.915	1.411	2.07	66.7	60.8
[1	-3	-7]	(6	2	0)	(6	-5	3)	2.915	1.406	2.07	72.4	56.9
[1	-3	-3]	(6	2	0)	(6	5	-3)	2.915	1.406	2.07	56.0	74.4
[3	-9	-23]	(6	2	0)	(5	-6	3)	2.915	1.403	2.08	78.2	54.5
[3	-9	13]	(6	2	0)	(5	6	3)	2.915	1.403	2.08	59.2	68.1
[3	-9	-8]	(6	2	0)	(8	0	3)	2.915	1.401	2.08	55.1	76.1
[3	-9	-11]	(6	2	0)	(8	-1	3)	2.915	1.396	2.09	56.9	71.2
[3	-9	-5]	(6	2	0)	(8	1	3)	2.915	1.396	2.09	53.4	81.2
[3	-9	-19]	(6	2	0)	(7	-4	3)	2.915	1.392	2.09	66.6	59.5
[3	-9	5]	(6	2	0)	(7	4	3)	2.915	1.392	2.09	53.2	81.2
[3	-9	-14]	(6	2	0)	(8	-2	3)	2.915	1.384	2.11	59.0	66.5

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Anthophyllite (620) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-9	-2]	(6	2	0)	(8	2	3)	2.915	1.384	2.11	52.0	86.5
[3	-9	-25]	(6	2	0)	(4	-7	3)	2.915	1.383	2.11	83.9	52.2
[3	-9	17]	(6	2	0)	(4	7	3)	2.915	1.383	2.11	62.7	62.2
[3	-9	25]	(6	2	0)	(-1	8	3)	2.915	1.379	2.11	82.5	52.2
[3	-9	23]	(6	2	0)	(1	8	3)	2.915	1.379	2.11	74.3	54.5
[1	-3	-6]	(6	2	0)	(-9	-7	2)	2.915	1.370	2.13	36.4	60.8
[3	-9	26]	(6	2	0)	(-2	8	3)	2.915	1.368	2.13	86.6	51.1
[3	-9	22]	(6	2	0)	(2	8	3)	2.915	1.368	2.13	70.2	55.7
[3	-9	-17]	(6	2	0)	(8	-3	3)	2.915	1.363	2.14	61.1	62.2
[3	-9	1]	(6	2	0)	(8	3	3)	2.915	1.363	2.14	50.8	88.2
[1	-3	10]	(6	2	0)	(7	9	2)	2.915	1.362	2.14	44.8	47.1
[3	-9	8]	(6	2	0)	(7	5	3)	2.915	1.356	2.15	52.5	76.1
[3	-9	-26]	(6	2	0)	(5	-7	3)	2.915	1.350	2.16	80.0	51.1
[3	-9	16]	(6	2	0)	(5	7	3)	2.915	1.350	2.16	58.9	63.6
[1	-3	-9]	(6	2	0)	(3	-8	3)	2.915	1.350	2.16	89.4	50.1
[1	-3	7]	(6	2	0)	(3	8	3)	2.915	1.350	2.16	66.2	56.9
[3	-9	-20]	(6	2	0)	(8	-4	3)	2.915	1.337	2.18	63.3	58.2
[3	-9	4]	(6	2	0)	(8	4	3)	2.915	1.337	2.18	49.9	82.9
[1	-3	-4]	(6	2	0)	(9	-1	3)	2.915	1.333	2.19	53.9	69.6
[1	-3	-2]	(6	2	0)	(9	1	3)	2.915	1.333	2.19	50.4	79.5
[3	-9	-28]	(6	2	0)	(4	-8	3)	2.915	1.325	2.20	85.5	49.1
[3	-9	20]	(6	2	0)	(4	8	3)	2.915	1.325	2.20	62.4	58.2
[1	-3	-5]	(6	2	0)	(9	-2	3)	2.915	1.322	2.20	55.9	65.1
[1	-3	-1]	(6	2	0)	(9	2	3)	2.915	1.322	2.20	49.0	84.7
[4	-12	-1]	(6	2	0)	(1	0	4)	2.915	1.317	2.21	86.1	88.7
[3	-9	25]	(6	2	0)	(7	-6	-3)	2.915	1.315	2.22	70.9	52.2
[3	-9	-11]	(6	2	0)	(-7	-6	3)	2.915	1.315	2.22	52.1	71.2
[3	-9	28]	(6	2	0)	(-1	9	3)	2.915	1.315	2.22	81.5	49.1
[3	-9	26]	(6	2	0)	(1	9	3)	2.915	1.315	2.22	73.6	51.1
[2	-6	-15]	(6	2	0)	(9	8	-2)	2.915	1.313	2.22	37.3	55.1
[1	-3	-1]	(6	2	0)	(1	-1	4)	2.915	1.313	2.22	87.5	84.7
[2	-6	-1]	(6	2	0)	(1	1	-4)	2.915	1.313	2.22	84.8	87.3
[1	-3	9]	(6	2	0)	(-6	7	3)	2.915	1.312	2.22	76.4	50.1
[1	-3	5]	(6	2	0)	(6	7	3)	2.915	1.312	2.22	55.3	65.1
[2	-6	19]	(6	2	0)	(8	9	2)	2.915	1.309	2.23	41.4	48.6
[3	-9	29]	(6	2	0)	(-2	9	3)	2.915	1.305	2.23	85.4	48.1
[3	-9	25]	(6	2	0)	(2	9	3)	2.915	1.305	2.23	69.7	52.2
[3	-9	-23]	(6	2	0)	(8	-5	3)	2.915	1.304	2.24	65.5	54.5
[3	-9	-7]	(6	2	0)	(8	5	-3)	2.915	1.304	2.24	49.3	77.8
[4	-12	5]	(6	2	0)	(2	-1	-4)	2.915	1.303	2.24	83.7	83.4
[4	-12	-1]	(6	2	0)	(-2	-1	4)	2.915	1.303	2.24	81.0	88.7
[4	-12	-7]	(6	2	0)	(1	-2	4)	2.915	1.303	2.24	88.9	80.8
[4	-12	5]	(6	2	0)	(1	2	4)	2.915	1.303	2.24	83.5	83.4
[3	-9	-29]	(6	2	0)	(5	-8	3)	2.915	1.296	2.25	81.8	48.1
[3	-9	19]	(6	2	0)	(5	8	3)	2.915	1.296	2.25	58.7	59.5
[4	-12	-3]	(6	2	0)	(3	0	4)	2.915	1.291	2.26	78.6	86.0
[2	-6	-3]	(6	2	0)	(3	-1	4)	2.915	1.287	2.26	80.0	82.1
[1	-3	0]	(6	2	0)	(3	1	4)	2.915	1.287	2.26	77.2	90.0

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Anthophyllite (620) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[2	-6	5]	(6	2	0)	(-1	3	4)	2.915	1.286	2.27	89.7	76.9
[1	-3	2]	(6	2	0)	(1	3	4)	2.915	1.286	2.27	82.2	79.5
[1	-3	-7]	(6	2	0)	(9	-4	3)	2.915	1.281	2.28	60.3	56.9
[1	-3	1]	(6	2	0)	(9	4	3)	2.915	1.281	2.28	47.0	84.7
[4	-12	-9]	(6	2	0)	(3	-2	4)	2.915	1.278	2.28	81.4	78.2
[4	-12	3]	(6	2	0)	(3	2	4)	2.915	1.278	2.28	76.0	86.0
[4	-12	-11]	(6	2	0)	(2	-3	4)	2.915	1.277	2.28	86.5	75.7
[4	-12	7]	(6	2	0)	(2	3	4)	2.915	1.277	2.28	78.5	80.8
[3	-9	-28]	(6	2	0)	(7	-7	3)	2.915	1.271	2.29	73.0	49.1
[3	-9	14]	(6	2	0)	(7	7	3)	2.915	1.271	2.29	51.9	66.5
[3	-9	-31]	(6	2	0)	(4	-9	3)	2.915	1.268	2.30	87.0	46.2
[3	-9	23]	(6	2	0)	(4	9	3)	2.915	1.268	2.30	62.2	54.5
[4	-12	-7]	(6	2	0)	(4	-1	4)	2.915	1.266	2.30	76.4	80.8
[4	-12	-1]	(6	2	0)	(4	1	4)	2.915	1.266	2.30	73.6	88.7
[4	-12	11]	(6	2	0)	(1	4	4)	2.915	1.263	2.31	81.0	75.7
[1	-3	-10]	(6	2	0)	(6	-8	3)	2.915	1.262	2.31	78.3	47.1
[1	-3	-6]	(6	2	0)	(6	8	-3)	2.915	1.262	2.31	55.2	60.8
[1	-3	3]	(6	2	0)	(-3	3	4)	2.915	1.262	2.31	82.8	74.4
[2	-6	3]	(6	2	0)	(3	3	4)	2.915	1.262	2.31	74.8	82.1
[1	-3	9]	(6	2	0)	(9	9	2)	2.915	1.257	2.32	38.4	50.1
[1	-3	2]	(6	2	0)	(9	5	3)	2.915	1.252	2.33	46.4	79.5
[4	-12	-5]	(6	2	0)	(5	0	4)	2.915	1.243	2.34	71.5	83.4
[3	-9	-32]	(6	2	0)	(5	-9	3)	2.915	1.242	2.35	83.5	45.2
[3	-9	22]	(6	2	0)	(5	9	3)	2.915	1.242	2.35	58.6	55.7
[4	-12	-13]	(6	2	0)	(4	-3	4)	2.915	1.242	2.35	79.3	73.2
[4	-12	5]	(6	2	0)	(4	3	4)	2.915	1.242	2.35	71.2	83.4
[1	-3	-2]	(6	2	0)	(5	-1	4)	2.915	1.240	2.35	72.9	79.5
[2	-6	-1]	(6	2	0)	(5	1	4)	2.915	1.240	2.35	70.2	87.3
[4	-12	-15]	(6	2	0)	(3	-4	4)	2.915	1.240	2.35	84.3	70.8
[4	-12	9]	(6	2	0)	(3	4	4)	2.915	1.240	2.35	73.7	78.2
[1	-3	4]	(6	2	0)	(-1	5	4)	2.915	1.236	2.36	87.2	69.6
[2	-6	7]	(6	2	0)	(1	5	4)	2.915	1.236	2.36	79.9	72.0
[4	-12	-11]	(6	2	0)	(5	-2	4)	2.915	1.231	2.37	74.3	75.7
[4	-12	1]	(6	2	0)	(5	2	4)	2.915	1.231	2.37	68.9	88.7
[3	-9	-29]	(6	2	0)	(8	-7	3)	2.915	1.228	2.37	69.8	48.1
[3	-9	13]	(6	2	0)	(8	7	3)	2.915	1.228	2.37	48.8	68.1
[4	-12	-17]	(6	2	0)	(2	-5	4)	2.915	1.228	2.37	89.2	68.4
[4	-12	13]	(6	2	0)	(2	5	4)	2.915	1.228	2.37	76.3	73.2
[3	-9	-31]	(6	2	0)	(7	-8	3)	2.915	1.226	2.38	74.9	46.2
[3	-9	17]	(6	2	0)	(7	8	3)	2.915	1.226	2.38	51.9	62.2
[2	-6	-7]	(6	2	0)	(5	-3	4)	2.915	1.217	2.40	75.8	72.0
[1	-3	1]	(6	2	0)	(5	3	4)	2.915	1.217	2.40	67.8	84.7
[2	-6	-9]	(6	2	0)	(3	-5	4)	2.915	1.214	2.40	85.7	67.3
[1	-3	3]	(6	2	0)	(3	5	4)	2.915	1.214	2.40	72.7	74.4
[4	-12	-9]	(6	2	0)	(6	-1	4)	2.915	1.211	2.41	69.6	78.2
[4	-12	-3]	(6	2	0)	(6	1	4)	2.915	1.211	2.41	66.8	86.0
[4	-12	19]	(6	2	0)	(-1	6	4)	2.915	1.205	2.42	86.0	66.2
[4	-12	17]	(6	2	0)	(1	6	4)	2.915	1.205	2.42	78.9	68.4

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Anthophyllite (620) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[4	-12	-17]	(6	2	0)	(5	-4	4)	2.915	1.198	2.43	77.4	68.4
[4	-12	7]	(6	2	0)	(5	4	4)	2.915	1.198	2.43	66.8	80.8
[4	-12	-19]	(6	2	0)	(4	-5	4)	2.915	1.196	2.44	82.2	66.2
[4	-12	11]	(6	2	0)	(4	5	4)	2.915	1.196	2.44	69.3	75.7
[4	-12	-15]	(6	2	0)	(6	-3	4)	2.915	1.189	2.45	72.6	70.8
[4	-12	3]	(6	2	0)	(6	3	4)	2.915	1.189	2.45	64.6	86.0
[3	-9	-32]	(6	2	0)	(8	-8	3)	2.915	1.187	2.46	71.8	45.2
[3	-9	-16]	(6	2	0)	(8	8	-3)	2.915	1.187	2.46	48.8	63.6
[1	-3	10]	(6	2	0)	(-9	7	3)	2.915	1.185	2.46	66.8	47.1
[1	-3	4]	(6	2	0)	(9	7	3)	2.915	1.185	2.46	45.9	69.6
[4	-12	-21]	(6	2	0)	(3	-6	4)	2.915	1.185	2.46	87.0	64.0
[4	-12	15]	(6	2	0)	(3	6	4)	2.915	1.185	2.46	71.9	70.8
[4	-12	-7]	(6	2	0)	(7	0	4)	2.915	1.181	2.47	65.0	80.8
[3	-9	20]	(6	2	0)	(7	9	3)	2.915	1.179	2.47	52.0	58.2
[2	-6	-5]	(6	2	0)	(7	-1	4)	2.915	1.178	2.47	66.4	76.9
[1	-3	-1]	(6	2	0)	(7	1	4)	2.915	1.178	2.47	63.7	84.7
[1	-3	-5]	(6	2	0)	(5	-5	4)	2.915	1.174	2.48	78.9	65.1
[2	-6	5]	(6	2	0)	(5	5	4)	2.915	1.174	2.48	66.0	76.9
[4	-12	-13]	(6	2	0)	(7	-2	4)	2.915	1.171	2.49	67.9	73.2
[4	-12	-1]	(6	2	0)	(7	2	4)	2.915	1.171	2.49	62.5	88.7
[2	-6	11]	(6	2	0)	(-1	7	4)	2.915	1.171	2.49	84.9	62.9
[1	-3	5]	(6	2	0)	(1	7	4)	2.915	1.171	2.49	77.9	65.1
[4	-12	23]	(6	2	0)	(-2	7	4)	2.915	1.164	2.51	88.3	61.9
[4	-12	-19]	(6	2	0)	(2	7	-4)	2.915	1.164	2.51	74.5	66.2
[1	-3	4]	(6	2	0)	(7	-3	-4)	2.915	1.158	2.52	69.4	69.6
[2	-6	1]	(6	2	0)	(7	3	4)	2.915	1.158	2.52	61.5	87.3
[1	-3	-6]	(6	2	0)	(3	-7	4)	2.915	1.152	2.53	88.3	60.8
[2	-6	9]	(6	2	0)	(3	7	4)	2.915	1.152	2.53	71.1	67.3
[4	-12	-21]	(6	2	0)	(6	-5	4)	2.915	1.149	2.54	75.7	64.0
[4	-12	-9]	(6	2	0)	(6	5	-4)	2.915	1.149	2.54	62.8	78.2
[1	-3	-5]	(6	2	0)	(9	8	-3)	2.915	1.148	2.54	46.0	65.1
[4	-12	-23]	(6	2	0)	(5	-6	4)	2.915	1.148	2.54	80.3	61.9
[4	-12	13]	(6	2	0)	(5	6	4)	2.915	1.148	2.54	65.3	73.2
[3	-9	19]	(6	2	0)	(8	9	3)	2.915	1.145	2.55	49.0	59.5
[4	-12	-11]	(6	2	0)	(8	-1	4)	2.915	1.144	2.55	63.5	75.7
[4	-12	-5]	(6	2	0)	(8	1	4)	2.915	1.144	2.55	60.8	83.4
[4	-12	-19]	(6	2	0)	(7	-4	4)	2.915	1.142	2.55	71.0	66.2
[4	-12	5]	(6	2	0)	(7	4	4)	2.915	1.142	2.55	60.6	83.4
[4	-12	-25]	(6	2	0)	(4	-7	4)	2.915	1.137	2.56	85.0	59.8
[4	-12	17]	(6	2	0)	(4	7	4)	2.915	1.137	2.56	67.8	68.4
[4	-12	25]	(6	2	0)	(-1	8	4)	2.915	1.135	2.57	83.8	59.8
[4	-12	23]	(6	2	0)	(1	8	4)	2.915	1.135	2.57	77.1	61.9
[4	-12	-17]	(6	2	0)	(8	-3	4)	2.915	1.126	2.59	66.5	68.4
[4	-12	1]	(6	2	0)	(8	3	4)	2.915	1.126	2.59	58.6	88.7
[2	-6	-11]	(6	2	0)	(7	-5	4)	2.915	1.121	2.60	72.6	62.9
[1	-3	2]	(6	2	0)	(7	5	4)	2.915	1.121	2.60	59.8	79.5
[2	-6	-13]	(6	2	0)	(5	-7	4)	2.915	1.118	2.61	81.8	58.9
[1	-3	4]	(6	2	0)	(5	7	4)	2.915	1.118	2.61	64.7	69.6

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[4	-12	-27]	(6	2	0)	(3	-8	4)	2.915	1.118	2.61	89.5	57.9
[4	-12	21]	(6	2	0)	(3	8	4)	2.915	1.118	2.61	70.5	64.0
[4	-12	-9]	(6	2	0)	(9	0	4)	2.915	1.111	2.62	59.3	78.2
[2	-6	-3]	(6	2	0)	(9	1	4)	2.915	1.109	2.63	58.0	82.1
[4	-12	-15]	(6	2	0)	(9	-2	4)	2.915	1.102	2.64	62.2	70.8
[4	-12	-3]	(6	2	0)	(9	2	4)	2.915	1.102	2.64	56.8	86.0
[4	-12	25]	(6	2	0)	(7	-6	-4)	2.915	1.098	2.65	74.2	59.8
[4	-12	11]	(6	2	0)	(7	6	4)	2.915	1.098	2.65	59.2	75.7
[1	-3	7]	(6	2	0)	(-1	9	4)	2.915	1.098	2.66	82.9	56.9
[2	-6	13]	(6	2	0)	(1	9	4)	2.915	1.098	2.66	76.4	58.9
[4	-12	-27]	(6	2	0)	(6	-7	4)	2.915	1.096	2.66	78.7	57.9
[4	-12	15]	(6	2	0)	(6	7	4)	2.915	1.096	2.66	61.6	70.8
[4	-12	29]	(6	2	0)	(-2	9	4)	2.915	1.092	2.67	86.1	56.0
[4	-12	25]	(6	2	0)	(2	9	4)	2.915	1.092	2.67	73.1	59.8
[2	-6	-9]	(6	2	0)	(9	-3	4)	2.915	1.092	2.67	63.7	67.3
[1	-3	0]	(6	2	0)	(9	3	4)	2.915	1.092	2.67	55.8	90.0
[4	-12	-23]	(6	2	0)	(8	-5	4)	2.915	1.092	2.67	69.7	61.9
[4	-12	-7]	(6	2	0)	(8	5	-4)	2.915	1.092	2.67	56.9	80.8
[4	-12	29]	(6	2	0)	(-5	8	4)	2.915	1.087	2.68	83.1	56.0
[4	-12	19]	(6	2	0)	(5	8	4)	2.915	1.087	2.68	64.2	66.2
[2	-6	15]	(6	2	0)	(-3	9	4)	2.915	1.083	2.69	89.4	55.1
[1	-3	6]	(6	2	0)	(3	9	4)	2.915	1.083	2.69	69.9	60.8
[4	-12	-21]	(6	2	0)	(9	-4	4)	2.915	1.078	2.70	65.3	64.0
[4	-12	3]	(6	2	0)	(9	4	4)	2.915	1.078	2.70	54.9	86.0
[1	-3	-7]	(6	2	0)	(7	-7	4)	2.915	1.072	2.72	75.7	56.9
[2	-6	7]	(6	2	0)	(7	7	4)	2.915	1.072	2.72	58.7	72.0
[4	-12	-31]	(6	2	0)	(4	-9	4)	2.915	1.070	2.72	87.5	54.2
[4	-12	23]	(6	2	0)	(4	9	4)	2.915	1.070	2.72	66.8	61.9
[1	-3	6]	(6	2	0)	(9	-5	-4)	2.915	1.061	2.75	67.0	60.8
[2	-6	-3]	(6	2	0)	(-9	-5	4)	2.915	1.061	2.75	54.2	82.1
[5	-15	-1]	(6	2	0)	(1	0	5)	2.915	1.054	2.77	86.9	88.9
[1	-3	-8]	(6	2	0)	(5	-9	4)	2.915	1.054	2.77	84.4	53.4
[2	-6	11]	(6	2	0)	(5	9	4)	2.915	1.054	2.77	63.8	62.9
[5	-15	3]	(6	2	0)	(0	1	5)	2.915	1.054	2.77	88.9	86.8
[5	-15	-4]	(6	2	0)	(1	-1	5)	2.915	1.052	2.77	88.0	85.7
[5	-15	2]	(6	2	0)	(1	1	5)	2.915	1.052	2.77	85.8	87.9
[5	-15	-2]	(6	2	0)	(2	0	5)	2.915	1.049	2.78	83.8	87.9
[1	-3	-1]	(6	2	0)	(2	-1	5)	2.915	1.047	2.78	85.0	84.7
[5	-15	1]	(6	2	0)	(2	1	5)	2.915	1.047	2.78	82.8	88.9
[5	-15	-7]	(6	2	0)	(1	-2	5)	2.915	1.047	2.78	89.1	82.6
[1	-3	1]	(6	2	0)	(1	2	5)	2.915	1.047	2.78	84.7	84.7
[4	-12	-29]	(6	2	0)	(8	-7	4)	2.915	1.046	2.79	72.9	56.0
[4	-12	13]	(6	2	0)	(8	7	4)	2.915	1.046	2.79	55.9	73.2
[4	-12	-31]	(6	2	0)	(7	-8	4)	2.915	1.044	2.79	77.2	54.2
[4	-12	17]	(6	2	0)	(7	8	4)	2.915	1.044	2.79	58.3	68.4
[5	-15	-8]	(6	2	0)	(2	-2	5)	2.915	1.042	2.80	86.1	81.5
[5	-15	-4]	(6	2	0)	(2	2	-5)	2.915	1.042	2.80	81.7	85.7
[4	-12	-27]	(6	2	0)	(9	-6	4)	2.915	1.041	2.80	68.6	57.9

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Anthophyllite (620) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[4	-12	9]	(6	2	0)	(9	6	4)	2.915	1.041	2.80	53.7	78.2
[5	-15	-3]	(6	2	0)	(3	0	5)	2.915	1.041	2.80	80.8	86.8
[5	-15	9]	(6	2	0)	(0	3	5)	2.915	1.040	2.80	86.7	80.5
[5	-15	-6]	(6	2	0)	(3	-1	5)	2.915	1.039	2.81	81.9	83.6
[1	-3	0]	(6	2	0)	(3	1	5)	2.915	1.039	2.81	79.7	90.0
[1	-3	2]	(6	2	0)	(-1	3	5)	2.915	1.038	2.81	89.8	79.5
[5	-15	8]	(6	2	0)	(1	3	5)	2.915	1.038	2.81	83.7	81.5
[4	-12	-33]	(6	2	0)	(6	-9	4)	2.915	1.036	2.81	81.5	52.5
[4	-12	21]	(6	2	0)	(6	9	4)	2.915	1.036	2.81	60.8	64.0
[5	-15	-9]	(6	2	0)	(3	-2	5)	2.915	1.034	2.82	83.1	80.5
[5	-15	3]	(6	2	0)	(3	2	5)	2.915	1.034	2.82	78.7	86.8
[5	-15	-11]	(6	2	0)	(2	-3	5)	2.915	1.033	2.82	87.2	78.4
[5	-15	7]	(6	2	0)	(2	3	5)	2.915	1.033	2.82	80.7	82.6
[5	-15	-4]	(6	2	0)	(4	0	5)	2.915	1.030	2.83	77.9	85.7
[5	-15	-7]	(6	2	0)	(4	-1	5)	2.915	1.028	2.84	79.0	82.6
[5	-15	-1]	(6	2	0)	(4	1	5)	2.915	1.028	2.84	76.8	88.9
[5	-15	13]	(6	2	0)	(-1	4	5)	2.915	1.026	2.84	88.7	76.4
[5	-15	11]	(6	2	0)	(1	4	5)	2.915	1.026	2.84	82.7	78.4
[5	-15	-12]	(6	2	0)	(3	-3	5)	2.915	1.025	2.84	84.2	77.4
[5	-15	6]	(6	2	0)	(3	3	5)	2.915	1.025	2.84	77.7	83.6
[1	-3	-2]	(6	2	0)	(4	-2	5)	2.915	1.023	2.85	80.1	79.5
[5	-15	2]	(6	2	0)	(4	2	5)	2.915	1.023	2.85	75.7	87.9
[5	-15	-14]	(6	2	0)	(2	-4	5)	2.915	1.021	2.85	88.3	75.4
[1	-3	2]	(6	2	0)	(2	4	5)	2.915	1.021	2.85	79.7	79.5
[1	-3	3]	(6	2	0)	(9	7	4)	2.915	1.019	2.86	53.2	74.4
[2	-6	-17]	(6	2	0)	(7	-9	4)	2.915	1.015	2.87	78.6	51.7
[1	-3	5]	(6	2	0)	(7	9	4)	2.915	1.015	2.87	58.0	65.1
[5	-15	-13]	(6	2	0)	(4	-3	5)	2.915	1.015	2.87	81.3	76.4
[1	-3	1]	(6	2	0)	(4	3	5)	2.915	1.015	2.87	74.8	84.7
[5	-15	-8]	(6	2	0)	(5	-1	5)	2.915	1.014	2.88	76.1	81.5
[5	-15	-2]	(6	2	0)	(5	1	5)	2.915	1.014	2.88	73.9	87.9
[1	-3	-3]	(6	2	0)	(3	-4	5)	2.915	1.014	2.88	85.3	74.4
[5	-15	9]	(6	2	0)	(3	4	5)	2.915	1.014	2.88	76.7	80.5
[5	-15	16]	(6	2	0)	(-1	5	5)	2.915	1.011	2.88	87.7	73.4
[5	-15	14]	(6	2	0)	(1	5	5)	2.915	1.011	2.88	81.7	75.4
[5	-15	-11]	(6	2	0)	(5	-2	5)	2.915	1.009	2.89	77.2	78.4
[5	-15	1]	(6	2	0)	(5	2	5)	2.915	1.009	2.89	72.9	88.9
[5	-15	-17]	(6	2	0)	(2	-5	5)	2.915	1.007	2.90	89.4	72.5
[5	-15	13]	(6	2	0)	(2	5	5)	2.915	1.007	2.90	78.8	76.4
[5	-15	-16]	(6	2	0)	(4	-4	5)	2.915	1.003	2.91	82.4	73.4
[5	-15	8]	(6	2	0)	(4	4	5)	2.915	1.003	2.91	73.9	81.5
[5	-15	-14]	(6	2	0)	(5	-3	5)	2.915	1.001	2.91	78.4	75.4
[5	-15	4]	(6	2	0)	(5	3	5)	2.915	1.001	2.91	71.9	85.7

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-1	-3]	(2	6	0)	(1	0	1)	2.839	5.077	0.56	85.2	74.8
[3	-1	1]	(2	6	0)	(0	1	1)	2.839	5.064	0.56	74.4	84.8
[3	-1	-4]	(2	6	0)	(-1	1	-1)	2.839	4.885	0.58	79.7	70.1
[3	-1	2]	(2	6	0)	(-1	-1	1)	2.839	4.885	0.58	70.1	79.7
[3	-1	-6]	(2	6	0)	(2	0	1)	2.839	4.586	0.62	81.2	61.5
[3	-1	7]	(2	6	0)	(-2	1	1)	2.839	4.442	0.64	84.9	57.6
[3	-1	5]	(2	6	0)	(2	1	-1)	2.839	4.442	0.64	67.4	65.6
[3	-1	-5]	(2	6	0)	(1	-2	1)	2.839	4.416	0.64	66.7	65.6
[3	-1	-1]	(2	6	0)	(1	2	1)	2.839	4.416	0.64	57.1	84.8
[3	-1	8]	(2	6	0)	(-2	2	1)	2.839	4.081	0.70	72.6	54.1
[3	-1	-4]	(2	6	0)	(2	2	1)	2.839	4.081	0.70	55.3	70.1
[3	-1	-9]	(2	6	0)	(3	0	1)	2.839	4.011	0.71	78.5	50.8
[3	-1	3]	(2	6	0)	(0	3	1)	2.839	3.954	0.72	50.9	74.8
[3	-1	10]	(2	6	0)	(-3	1	1)	2.839	3.914	0.73	89.2	47.8
[3	-1	8]	(2	6	0)	(3	1	-1)	2.839	3.914	0.73	66.2	54.1
[3	-1	-6]	(2	6	0)	(1	-3	1)	2.839	3.867	0.73	56.5	61.5
[3	-1	0]	(2	6	0)	(1	3	1)	2.839	3.867	0.73	47.1	90.0
[3	-1	11]	(2	6	0)	(-3	2	1)	2.839	3.660	0.78	78.1	45.1
[3	-1	-7]	(2	6	0)	(3	2	1)	2.839	3.660	0.78	55.2	57.6
[3	-1	9]	(2	6	0)	(-2	3	1)	2.839	3.636	0.78	62.7	50.8
[3	-1	-3]	(2	6	0)	(2	3	1)	2.839	3.636	0.78	45.5	74.8
[3	-1	-11]	(2	6	0)	(4	1	1)	2.839	3.415	0.83	65.9	45.1
[3	-1	7]	(2	6	0)	(-1	4	1)	2.839	3.357	0.85	48.8	57.6
[3	-1	1]	(2	6	0)	(1	4	1)	2.839	3.357	0.85	39.7	84.8
[3	-1	6]	(2	6	0)	(3	3	-1)	2.839	3.329	0.85	45.8	61.5
[3	-1	-10]	(2	6	0)	(4	2	1)	2.839	3.243	0.88	55.9	47.8
[3	-1	10]	(2	6	0)	(-2	4	1)	2.839	3.203	0.89	54.9	47.8
[3	-1	-2]	(2	6	0)	(2	4	1)	2.839	3.203	0.89	38.1	79.7
[3	-1	-9]	(2	6	0)	(4	3	1)	2.839	3.005	0.94	47.2	50.8
[3	-1	-5]	(2	6	0)	(3	4	1)	2.839	2.987	0.95	38.4	65.6
[3	-1	5]	(2	6	0)	(0	5	1)	2.839	2.963	0.96	38.0	65.6
[3	-1	8]	(2	6	0)	(-1	5	1)	2.839	2.926	0.97	43.2	54.1
[3	-1	2]	(2	6	0)	(1	5	1)	2.839	2.926	0.97	34.3	79.7
[3	-1	11]	(2	6	0)	(-2	5	1)	2.839	2.822	1.01	49.0	45.1
[3	-1	-1]	(2	6	0)	(2	5	1)	2.839	2.822	1.01	32.5	84.8
[3	-1	-8]	(2	6	0)	(4	4	1)	2.839	2.747	1.03	40.0	54.1
[3	-1	-4]	(2	6	0)	(3	5	1)	2.839	2.671	1.06	32.5	70.1
[3	-1	0]	(2	6	0)	(0	0	2)	2.839	2.640	1.08	90.0	90.0
[6	-2	3]	(2	6	0)	(1	0	-2)	2.839	2.614	1.09	87.5	82.3
[3	-1	2]	(2	6	0)	(-1	1	2)	2.839	2.586	1.10	84.6	79.7
[3	-1	-1]	(2	6	0)	(1	1	2)	2.839	2.586	1.10	79.6	84.8
[3	-1	9]	(2	6	0)	(-1	6	1)	2.839	2.572	1.10	38.9	50.8
[3	-1	3]	(2	6	0)	(1	6	1)	2.839	2.572	1.10	30.3	74.8
[6	-2	7]	(2	6	0)	(-2	1	2)	2.839	2.513	1.13	87.1	72.4
[6	-2	-5]	(2	6	0)	(2	1	2)	2.839	2.513	1.13	77.5	77.2
[3	-1	-11]	(2	6	0)	(5	4	1)	2.839	2.509	1.13	42.1	45.1
[6	-2	5]	(2	6	0)	(-1	2	2)	2.839	2.509	1.13	77.0	77.2
[6	-2	-1]	(2	6	0)	(1	2	2)	2.839	2.509	1.13	72.0	87.4

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-1	0]	(2	6	0)	(2	6	1)	2.839	2.501	1.14	28.3	90.0
[3	-1	-7]	(2	6	0)	(4	5	1)	2.839	2.495	1.14	34.0	57.6
[6	-2	-9]	(2	6	0)	(3	0	2)	2.839	2.427	1.17	83.1	67.8
[3	-1	5]	(2	6	0)	(-3	1	2)	2.839	2.405	1.18	89.5	65.6
[3	-1	-4]	(2	6	0)	(3	1	2)	2.839	2.405	1.18	75.7	70.1
[3	-1	3]	(2	6	0)	(-1	3	2)	2.839	2.394	1.19	70.0	74.8
[3	-1	0]	(2	6	0)	(1	3	2)	2.839	2.394	1.19	65.1	90.0
[6	-2	11]	(2	6	0)	(-3	2	2)	2.839	2.342	1.21	82.4	63.5
[6	-2	-7]	(2	6	0)	(3	2	2)	2.839	2.342	1.21	68.6	72.4
[6	-2	9]	(2	6	0)	(-2	3	2)	2.839	2.336	1.22	72.8	67.8
[6	-2	-3]	(2	6	0)	(2	3	2)	2.839	2.336	1.22	63.2	82.3
[3	-1	-10]	(2	6	0)	(5	5	1)	2.839	2.313	1.23	36.2	47.8
[3	-1	7]	(2	6	0)	(0	7	1)	2.839	2.301	1.23	31.1	57.6
[3	-1	10]	(2	6	0)	(-1	7	1)	2.839	2.284	1.24	35.7	47.8
[3	-1	4]	(2	6	0)	(1	7	1)	2.839	2.284	1.24	27.4	70.1
[6	-2	-13]	(2	6	0)	(4	-1	2)	2.839	2.274	1.25	88.3	59.5
[6	-2	-11]	(2	6	0)	(4	1	2)	2.839	2.274	1.25	74.2	63.5
[3	-1	2]	(2	6	0)	(0	4	2)	2.839	2.274	1.25	61.1	79.7
[3	-1	-6]	(2	6	0)	(4	6	1)	2.839	2.265	1.25	29.2	61.5
[6	-2	7]	(2	6	0)	(-1	4	2)	2.839	2.257	1.26	63.7	72.4
[6	-2	1]	(2	6	0)	(1	4	2)	2.839	2.257	1.26	58.8	87.4
[3	-1	6]	(2	6	0)	(-3	3	2)	2.839	2.248	1.26	75.7	61.5
[3	-1	3]	(2	6	0)	(3	3	-2)	2.839	2.248	1.26	61.9	74.8
[3	-1	1]	(2	6	0)	(2	7	1)	2.839	2.233	1.27	25.1	84.8
[6	-2	15]	(2	6	0)	(-4	3	2)	2.839	2.140	1.33	78.5	55.8
[6	-2	-9]	(2	6	0)	(4	3	2)	2.839	2.140	1.33	61.1	67.8
[3	-1	-8]	(2	6	0)	(5	-1	2)	2.839	2.134	1.33	86.4	54.1
[3	-1	-7]	(2	6	0)	(5	1	2)	2.839	2.134	1.33	73.1	57.6
[6	-2	13]	(2	6	0)	(-3	4	2)	2.839	2.133	1.33	69.7	59.5
[6	-2	-5]	(2	6	0)	(3	4	2)	2.839	2.133	1.33	56.0	77.2
[3	-1	-9]	(2	6	0)	(5	6	1)	2.839	2.126	1.34	31.3	50.8
[3	-1	4]	(2	6	0)	(-1	5	2)	2.839	2.111	1.35	58.3	70.1
[3	-1	1]	(2	6	0)	(1	5	2)	2.839	2.111	1.35	53.4	84.8
[6	-2	17]	(2	6	0)	(-5	2	2)	2.839	2.090	1.36	87.2	52.4
[6	-2	-13]	(2	6	0)	(5	2	2)	2.839	2.090	1.36	66.7	59.5
[6	-2	11]	(2	6	0)	(-2	5	2)	2.839	2.071	1.37	61.2	63.5
[6	-2	-1]	(2	6	0)	(2	5	2)	2.839	2.071	1.37	51.7	87.4
[3	-1	-5]	(2	6	0)	(4	7	1)	2.839	2.060	1.38	25.4	65.6
[3	-1	11]	(2	6	0)	(-1	8	1)	2.839	2.047	1.39	33.2	45.1
[3	-1	5]	(2	6	0)	(1	8	1)	2.839	2.047	1.39	25.2	65.6
[3	-1	9]	(2	6	0)	(-5	3	2)	2.839	2.022	1.40	81.1	50.8
[3	-1	-6]	(2	6	0)	(5	3	2)	2.839	2.022	1.40	60.6	61.5
[3	-1	2]	(2	6	0)	(2	8	1)	2.839	2.011	1.41	22.8	79.7
[3	-1	7]	(2	6	0)	(-3	5	2)	2.839	2.009	1.41	64.3	57.6
[3	-1	-2]	(2	6	0)	(3	5	2)	2.839	2.009	1.41	50.7	79.7
[6	-2	-19]	(2	6	0)	(6	-1	2)	2.839	1.993	1.42	84.7	49.3
[6	-2	-17]	(2	6	0)	(6	1	2)	2.839	1.993	1.42	72.3	52.4
[6	-2	9]	(2	6	0)	(-1	6	2)	2.839	1.966	1.44	53.5	67.8

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[6	-2	3]	(2	6	0)	(1	6	2)	2.839	1.966	1.44	48.7	82.3
[3	-1	1]	(2	6	0)	(3	8	-1)	2.839	1.954	1.45	21.8	84.8
[6	-2	19]	(2	6	0)	(-5	4	2)	2.839	1.937	1.47	75.4	49.3
[6	-2	-11]	(2	6	0)	(5	4	2)	2.839	1.937	1.47	55.1	63.5
[6	-2	17]	(2	6	0)	(-4	5	2)	2.839	1.931	1.47	67.3	52.4
[6	-2	-7]	(2	6	0)	(4	5	2)	2.839	1.931	1.47	50.1	72.4
[6	-2	21]	(2	6	0)	(-6	3	2)	2.839	1.901	1.49	83.5	46.4
[6	-2	-15]	(2	6	0)	(6	3	2)	2.839	1.901	1.49	60.5	55.8
[6	-2	15]	(2	6	0)	(-3	6	2)	2.839	1.883	1.51	59.5	55.8
[6	-2	-3]	(2	6	0)	(3	6	2)	2.839	1.883	1.51	46.0	82.3
[3	-1	-4]	(2	6	0)	(4	8	1)	2.839	1.882	1.51	22.3	70.1
[6	-2	-21]	(2	6	0)	(7	0	2)	2.839	1.868	1.52	77.5	46.4
[3	-1	9]	(2	6	0)	(0	9	1)	2.839	1.861	1.53	27.0	50.8
[3	-1	-11]	(2	6	0)	(7	-1	2)	2.839	1.858	1.53	83.3	45.1
[3	-1	-10]	(2	6	0)	(7	1	2)	2.839	1.858	1.53	71.7	47.8
[3	-1	6]	(2	6	0)	(1	9	1)	2.839	1.852	1.53	23.5	61.5
[3	-1	-11]	(2	6	0)	(6	7	1)	2.839	1.844	1.54	29.5	45.1
[3	-1	10]	(2	6	0)	(-5	5	2)	2.839	1.843	1.54	70.3	47.8
[3	-1	-5]	(2	6	0)	(5	5	2)	2.839	1.843	1.54	50.0	65.6
[6	-2	-19]	(2	6	0)	(7	2	2)	2.839	1.828	1.55	66.0	49.3
[3	-1	5]	(2	6	0)	(-1	7	2)	2.839	1.828	1.55	49.5	65.6
[3	-1	2]	(2	6	0)	(1	7	2)	2.839	1.828	1.55	44.7	79.7
[3	-1	3]	(2	6	0)	(2	9	1)	2.839	1.825	1.56	21.0	74.8
[6	-2	13]	(2	6	0)	(-2	7	2)	2.839	1.802	1.58	52.4	59.5
[6	-2	1]	(2	6	0)	(2	7	2)	2.839	1.802	1.58	43.1	87.4
[3	-1	-7]	(2	6	0)	(5	8	1)	2.839	1.800	1.58	23.8	57.6
[3	-1	-9]	(2	6	0)	(7	3	2)	2.839	1.782	1.59	60.6	50.8
[3	-1	0]	(2	6	0)	(3	9	-1)	2.839	1.782	1.59	19.7	90.0
[3	-1	-8]	(2	6	0)	(3	-7	2)	2.839	1.760	1.61	55.4	54.1
[3	-1	1]	(2	6	0)	(3	7	-2)	2.839	1.760	1.61	42.0	84.8
[3	-1	1]	(2	6	0)	(-1	0	3)	2.839	1.752	1.62	88.3	84.8
[9	-3	1]	(2	6	0)	(0	1	3)	2.839	1.752	1.62	84.7	88.3
[6	-2	13]	(2	6	0)	(6	5	-2)	2.839	1.750	1.62	50.3	59.5
[9	-3	-4]	(2	6	0)	(1	-1	3)	2.839	1.744	1.63	86.3	83.1
[9	-3	-2]	(2	6	0)	(1	1	3)	2.839	1.744	1.63	83.0	86.5
[6	-2	21]	(2	6	0)	(-5	6	2)	2.839	1.744	1.63	65.7	46.4
[6	-2	-9]	(2	6	0)	(5	6	2)	2.839	1.744	1.63	45.5	67.8
[3	-1	-2]	(2	6	0)	(2	0	3)	2.839	1.729	1.64	86.7	79.7
[3	-1	-3]	(2	6	0)	(4	9	1)	2.839	1.727	1.64	19.8	74.8
[6	-2	-17]	(2	6	0)	(7	4	2)	2.839	1.724	1.65	55.5	52.4
[9	-3	7]	(2	6	0)	(-2	1	3)	2.839	1.721	1.65	88.0	78.1
[9	-3	-5]	(2	6	0)	(2	1	3)	2.839	1.721	1.65	81.5	81.4
[9	-3	5]	(2	6	0)	(-1	2	3)	2.839	1.719	1.65	81.1	81.4
[9	-3	-1]	(2	6	0)	(1	2	3)	2.839	1.719	1.65	77.8	88.3
[3	-1	-10]	(2	6	0)	(6	8	1)	2.839	1.713	1.66	26.0	47.8
[6	-2	-5]	(2	6	0)	(4	7	2)	2.839	1.707	1.66	41.5	77.2
[3	-1	4]	(2	6	0)	(0	8	2)	2.839	1.707	1.66	43.4	70.1
[6	-2	11]	(2	6	0)	(-1	8	2)	2.839	1.700	1.67	46.0	63.5

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[6	-2	5]	(2	6	0)	(1	8	2)	2.839	1.700	1.67	41.3	77.2
[9	-3	8]	(2	6	0)	(-2	2	3)	2.839	1.698	1.67	82.9	76.4
[9	-3	-4]	(2	6	0)	(2	2	3)	2.839	1.698	1.67	76.3	83.1
[9	-3	-10]	(2	6	0)	(3	-1	3)	2.839	1.685	1.69	89.7	73.2
[9	-3	-8]	(2	6	0)	(3	1	3)	2.839	1.685	1.69	80.0	76.4
[3	-1	2]	(2	6	0)	(-1	3	3)	2.839	1.681	1.69	76.1	79.7
[3	-1	0]	(2	6	0)	(1	3	3)	2.839	1.681	1.69	72.8	90.0
[6	-2	-21]	(2	6	0)	(8	3	2)	2.839	1.670	1.70	60.8	46.4
[3	-1	-6]	(2	6	0)	(5	9	1)	2.839	1.663	1.71	21.0	61.5
[3	-1	3]	(2	6	0)	(-2	3	3)	2.839	1.661	1.71	77.9	74.8
[3	-1	-1]	(2	6	0)	(2	3	3)	2.839	1.661	1.71	71.3	84.8
[3	-1	-8]	(2	6	0)	(7	5	2)	2.839	1.656	1.71	50.8	54.1
[3	-1	11]	(2	6	0)	(-5	7	2)	2.839	1.645	1.73	61.6	45.1
[3	-1	-4]	(2	6	0)	(5	7	2)	2.839	1.645	1.73	41.5	70.1
[6	-2	-17]	(2	6	0)	(-3	8	-2)	2.839	1.645	1.73	51.8	52.4
[6	-2	1]	(2	6	0)	(-3	-8	2)	2.839	1.645	1.73	38.6	87.4
[9	-3	-13]	(2	6	0)	(4	-1	3)	2.839	1.638	1.73	88.8	68.6
[9	-3	-11]	(2	6	0)	(4	1	3)	2.839	1.638	1.73	78.7	71.6
[9	-3	7]	(2	6	0)	(-1	4	3)	2.839	1.631	1.74	71.3	78.1
[9	-3	1]	(2	6	0)	(1	4	3)	2.839	1.631	1.74	68.0	88.3
[9	-3	-14]	(2	6	0)	(4	-2	3)	2.839	1.618	1.76	86.3	67.1
[9	-3	-10]	(2	6	0)	(4	2	3)	2.839	1.618	1.76	73.8	73.2
[9	-3	10]	(2	6	0)	(-2	4	3)	2.839	1.613	1.76	73.2	73.2
[9	-3	-2]	(2	6	0)	(2	4	3)	2.839	1.613	1.76	66.6	86.5
[3	-1	9]	(2	6	0)	(-6	-9	1)	2.839	1.593	1.78	22.9	50.8
[3	-1	-5]	(2	6	0)	(5	0	3)	2.839	1.589	1.79	82.4	65.6
[3	-1	5]	(2	6	0)	(-4	3	3)	2.839	1.586	1.79	81.5	65.6
[3	-1	-3]	(2	6	0)	(4	3	3)	2.839	1.586	1.79	69.0	74.8
[9	-3	-16]	(2	6	0)	(5	-1	3)	2.839	1.583	1.79	87.3	64.2
[9	-3	-14]	(2	6	0)	(5	1	3)	2.839	1.583	1.79	77.6	67.1
[6	-2	-15]	(2	6	0)	(7	6	2)	2.839	1.583	1.79	46.5	55.8
[9	-3	13]	(2	6	0)	(-3	4	3)	2.839	1.583	1.79	75.1	68.6
[9	-3	-5]	(2	6	0)	(3	4	3)	2.839	1.583	1.79	65.5	81.4
[3	-1	6]	(2	6	0)	(-1	9	2)	2.839	1.583	1.79	43.0	61.5
[3	-1	3]	(2	6	0)	(1	9	2)	2.839	1.583	1.79	38.4	74.8
[9	-3	5]	(2	6	0)	(0	5	3)	2.839	1.579	1.80	65.2	81.4
[6	-2	-11]	(2	6	0)	(6	7	2)	2.839	1.578	1.80	41.9	63.5
[9	-3	8]	(2	6	0)	(-1	5	3)	2.839	1.574	1.80	66.9	76.4
[9	-3	2]	(2	6	0)	(1	5	3)	2.839	1.574	1.80	63.6	86.5
[6	-2	15]	(2	6	0)	(-2	9	2)	2.839	1.566	1.81	45.8	55.8
[6	-2	3]	(2	6	0)	(2	9	2)	2.839	1.566	1.81	36.8	82.3
[9	-3	17]	(2	6	0)	(-5	2	3)	2.839	1.565	1.81	87.9	62.8
[9	-3	-13]	(2	6	0)	(5	2	3)	2.839	1.565	1.81	72.8	68.6
[6	-2	-19]	(2	6	0)	(8	5	2)	2.839	1.565	1.81	51.4	49.3
[9	-3	11]	(2	6	0)	(-2	5	3)	2.839	1.557	1.82	68.8	71.6
[9	-3	-1]	(2	6	0)	(2	5	3)	2.839	1.557	1.82	62.3	88.3
[6	-2	-7]	(2	6	0)	(5	8	2)	2.839	1.550	1.83	38.0	72.4
[9	-3	16]	(2	6	0)	(-4	4	3)	2.839	1.544	1.84	76.9	64.2

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[9	-3	-8]	(2	6	0)	(4	4	3)	2.839	1.544	1.84	64.5	76.4
[3	-1	-9]	(2	6	0)	(-3	9	-2)	2.839	1.538	1.85	48.7	50.8
[3	-1	0]	(2	6	0)	(-3	-9	2)	2.839	1.538	1.85	35.6	90.0
[3	-1	6]	(2	6	0)	(-5	3	3)	2.839	1.536	1.85	83.2	61.5
[3	-1	-4]	(2	6	0)	(5	3	3)	2.839	1.536	1.85	68.1	70.1
[9	-3	14]	(2	6	0)	(-3	5	3)	2.839	1.530	1.86	70.7	67.1
[9	-3	-4]	(2	6	0)	(3	5	3)	2.839	1.530	1.86	61.1	83.1
[9	-3	-19]	(2	6	0)	(6	-1	3)	2.839	1.523	1.86	85.9	60.2
[9	-3	-17]	(2	6	0)	(6	1	3)	2.839	1.523	1.86	76.6	62.8
[3	-1	3]	(2	6	0)	(-1	6	3)	2.839	1.511	1.88	62.8	74.8
[3	-1	1]	(2	6	0)	(1	6	3)	2.839	1.511	1.88	59.5	84.8
[3	-1	-7]	(2	6	0)	(7	7	2)	2.839	1.508	1.88	42.6	57.6
[9	-3	20]	(2	6	0)	(-6	2	3)	2.839	1.507	1.88	89.4	58.9
[9	-3	16]	(2	6	0)	(6	2	-3)	2.839	1.507	1.88	71.9	64.2
[6	-2	-3]	(2	6	0)	(4	9	2)	2.839	1.502	1.89	35.1	82.3
[9	-3	19]	(2	6	0)	(-5	4	3)	2.839	1.498	1.90	78.8	60.2
[9	-3	-11]	(2	6	0)	(5	4	3)	2.839	1.498	1.90	63.7	71.6
[3	-1	4]	(2	6	0)	(-2	6	3)	2.839	1.496	1.90	64.7	70.1
[3	-1	0]	(2	6	0)	(2	6	3)	2.839	1.496	1.90	58.2	90.0
[9	-3	17]	(2	6	0)	(-4	5	3)	2.839	1.495	1.90	72.7	62.8
[9	-3	-7]	(2	6	0)	(4	5	3)	2.839	1.495	1.90	60.2	78.1
[3	-1	-11]	(2	6	0)	(9	5	2)	2.839	1.477	1.92	52.2	45.1
[3	-1	7]	(2	6	0)	(7	0	-3)	2.839	1.465	1.94	80.2	57.6
[9	-3	-22]	(2	6	0)	(7	-1	3)	2.839	1.460	1.94	84.7	56.4
[9	-3	-20]	(2	6	0)	(7	1	3)	2.839	1.460	1.94	75.7	58.9
[3	-1	-3]	(2	6	0)	(5	9	2)	2.839	1.460	1.95	35.0	74.8
[9	-3	20]	(2	6	0)	(-5	5	3)	2.839	1.453	1.95	74.6	58.9
[9	-3	-10]	(2	6	0)	(5	5	3)	2.839	1.453	1.95	59.6	73.2
[9	-3	7]	(2	6	0)	(0	7	3)	2.839	1.450	1.96	57.3	78.1
[9	-3	22]	(2	6	0)	(-6	4	3)	2.839	1.446	1.96	80.6	56.4
[9	-3	-14]	(2	6	0)	(6	4	3)	2.839	1.446	1.96	63.2	67.1
[9	-3	-23]	(2	6	0)	(7	-2	3)	2.839	1.446	1.96	89.2	55.2
[9	-3	-19]	(2	6	0)	(7	2	3)	2.839	1.446	1.96	71.2	60.2
[9	-3	10]	(2	6	0)	(-1	7	3)	2.839	1.445	1.96	59.1	73.2
[9	-3	4]	(2	6	0)	(1	7	3)	2.839	1.445	1.96	55.8	83.1
[3	-1	6]	(2	6	0)	(-4	6	3)	2.839	1.440	1.97	68.7	61.5
[3	-1	-2]	(2	6	0)	(4	6	3)	2.839	1.440	1.97	56.3	79.7
[6	-2	-17]	(2	6	0)	(8	7	2)	2.839	1.438	1.97	43.4	52.4
[6	-2	-13]	(2	6	0)	(7	8	2)	2.839	1.434	1.98	39.1	59.5
[9	-3	13]	(2	6	0)	(-2	7	3)	2.839	1.432	1.98	61.0	68.6
[9	-3	1]	(2	6	0)	(2	7	3)	2.839	1.432	1.98	54.5	88.3
[6	-2	-21]	(2	6	0)	(9	6	2)	2.839	1.425	1.99	48.1	46.4
[3	-1	8]	(2	6	0)	(-7	3	3)	2.839	1.423	2.00	86.5	54.1
[3	-1	-6]	(2	6	0)	(7	3	3)	2.839	1.423	2.00	66.9	61.5
[6	-2	-9]	(2	6	0)	(6	9	2)	2.839	1.412	2.01	35.3	67.8
[9	-3	16]	(2	6	0)	(-3	7	3)	2.839	1.411	2.01	62.9	64.2
[9	-3	2]	(2	6	0)	(3	7	-3)	2.839	1.411	2.01	53.5	86.5
[9	-3	23]	(2	6	0)	(-6	5	3)	2.839	1.406	2.02	76.5	55.2

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[9	-3	13]	(2	6	0)	(6	5	-3)	2.839	1.406	2.02	59.1	68.6
[3	-1	-7]	(2	6	0)	(-5	6	-3)	2.839	1.403	2.02	70.7	57.6
[3	-1	-3]	(2	6	0)	(5	6	3)	2.839	1.403	2.02	55.7	74.8
[3	-1	-8]	(2	6	0)	(8	0	3)	2.839	1.401	2.03	79.3	54.1
[9	-3	-25]	(2	6	0)	(8	-1	3)	2.839	1.396	2.03	83.6	53.0
[9	-3	-23]	(2	6	0)	(8	1	3)	2.839	1.396	2.03	75.0	55.2
[9	-3	25]	(2	6	0)	(-7	4	3)	2.839	1.392	2.04	82.3	53.0
[9	-3	17]	(2	6	0)	(7	4	-3)	2.839	1.392	2.04	62.8	62.8
[9	-3	26]	(2	6	0)	(-8	2	3)	2.839	1.384	2.05	87.9	51.9
[9	-3	-22]	(2	6	0)	(8	2	3)	2.839	1.384	2.05	70.7	56.4
[9	-3	19]	(2	6	0)	(-4	7	3)	2.839	1.383	2.05	65.0	60.2
[9	-3	-5]	(2	6	0)	(4	7	3)	2.839	1.383	2.05	52.6	81.4
[9	-3	11]	(2	6	0)	(-1	8	3)	2.839	1.379	2.06	55.7	71.6
[9	-3	5]	(2	6	0)	(1	8	3)	2.839	1.379	2.06	52.4	81.4
[3	-1	10]	(2	6	0)	(9	7	-2)	2.839	1.370	2.07	44.4	47.8
[9	-3	14]	(2	6	0)	(-2	8	3)	2.839	1.368	2.08	57.6	67.1
[9	-3	2]	(2	6	0)	(2	8	3)	2.839	1.368	2.08	51.1	86.5
[3	-1	9]	(2	6	0)	(-8	3	3)	2.839	1.363	2.08	87.9	50.8
[3	-1	-7]	(2	6	0)	(8	3	3)	2.839	1.363	2.08	66.5	57.6
[3	-1	-6]	(2	6	0)	(7	9	2)	2.839	1.362	2.09	35.9	61.5
[9	-3	22]	(2	6	0)	(-5	7	3)	2.839	1.350	2.10	67.0	56.4
[9	-3	-8]	(2	6	0)	(5	7	3)	2.839	1.350	2.10	52.1	76.4
[9	-3	-17]	(2	6	0)	(-3	8	-3)	2.839	1.350	2.10	59.5	62.8
[9	-3	1]	(2	6	0)	(-3	-8	3)	2.839	1.350	2.10	50.1	88.3
[9	-3	28]	(2	6	0)	(-8	4	3)	2.839	1.337	2.12	83.9	49.8
[9	-3	20]	(2	6	0)	(8	4	-3)	2.839	1.337	2.12	62.5	58.9
[9	-3	28]	(2	6	0)	(-9	1	3)	2.839	1.333	2.13	82.6	49.8
[9	-3	-26]	(2	6	0)	(9	1	3)	2.839	1.333	2.13	74.3	51.9
[9	-3	20]	(2	6	0)	(-4	8	3)	2.839	1.325	2.14	61.6	58.9
[9	-3	-4]	(2	6	0)	(4	8	3)	2.839	1.325	2.14	49.3	83.1
[9	-3	-29]	(2	6	0)	(9	-2	3)	2.839	1.322	2.15	86.7	48.8
[9	-3	-25]	(2	6	0)	(9	2	3)	2.839	1.322	2.15	70.2	53.0
[12	-4	-3]	(2	6	0)	(1	0	4)	2.839	1.317	2.16	88.7	86.1
[3	-1	9]	(2	6	0)	(-7	6	3)	2.839	1.315	2.16	74.5	50.8
[3	-1	-5]	(2	6	0)	(7	6	3)	2.839	1.315	2.16	55.1	65.6
[3	-1	4]	(2	6	0)	(-1	9	3)	2.839	1.315	2.16	52.6	70.1
[3	-1	2]	(2	6	0)	(1	9	3)	2.839	1.315	2.16	49.4	79.7
[6	-2	19]	(2	6	0)	(9	8	-2)	2.839	1.313	2.16	41.0	49.3
[3	-1	-1]	(2	6	0)	(1	-1	4)	2.839	1.313	2.16	87.2	84.8
[6	-2	-1]	(2	6	0)	(1	1	4)	2.839	1.313	2.16	84.7	87.4
[9	-3	25]	(2	6	0)	(-6	7	3)	2.839	1.312	2.16	69.0	53.0
[9	-3	-11]	(2	6	0)	(6	7	3)	2.839	1.312	2.16	51.8	71.6
[6	-2	-15]	(2	6	0)	(8	9	2)	2.839	1.309	2.17	36.8	55.8
[3	-1	5]	(2	6	0)	(-2	9	3)	2.839	1.305	2.18	54.5	65.6
[3	-1	1]	(2	6	0)	(2	9	3)	2.839	1.305	2.18	48.1	84.8
[9	-3	29]	(2	6	0)	(-8	5	3)	2.839	1.304	2.18	80.0	48.8
[9	-3	-19]	(2	6	0)	(8	5	3)	2.839	1.304	2.18	58.7	60.2
[12	-4	7]	(2	6	0)	(-2	1	4)	2.839	1.303	2.18	88.5	81.0

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[12	-4	-5]	(2	6	0)	(2	1	4)	2.839	1.303	2.18	83.5	83.5
[12	-4	5]	(2	6	0)	(-1	2	4)	2.839	1.303	2.18	83.3	83.5
[12	-4	-1]	(2	6	0)	(1	2	4)	2.839	1.303	2.18	80.8	88.7
[9	-3	23]	(2	6	0)	(-5	8	3)	2.839	1.296	2.19	63.7	55.2
[9	-3	-7]	(2	6	0)	(5	8	3)	2.839	1.296	2.19	48.8	78.1
[12	-4	-9]	(2	6	0)	(3	0	4)	2.839	1.291	2.20	86.3	78.5
[6	-2	-5]	(2	6	0)	(3	-1	4)	2.839	1.287	2.21	89.7	77.2
[3	-1	-2]	(2	6	0)	(3	1	4)	2.839	1.287	2.21	82.4	79.7
[6	-2	3]	(2	6	0)	(-1	3	4)	2.839	1.286	2.21	79.4	82.3
[3	-1	0]	(2	6	0)	(1	3	4)	2.839	1.286	2.21	76.9	90.0
[9	-3	31]	(2	6	0)	(-9	4	3)	2.839	1.281	2.22	85.3	46.9
[9	-3	-23]	(2	6	0)	(9	4	3)	2.839	1.281	2.22	62.4	55.2
[12	-4	11]	(2	6	0)	(-3	2	4)	2.839	1.278	2.22	85.9	76.0
[12	-4	-7]	(2	6	0)	(3	2	4)	2.839	1.278	2.22	78.5	81.0
[12	-4	9]	(2	6	0)	(-2	3	4)	2.839	1.277	2.22	80.7	78.5
[12	-4	-3]	(2	6	0)	(2	3	4)	2.839	1.277	2.22	75.8	86.1
[9	-3	28]	(2	6	0)	(-7	7	3)	2.839	1.271	2.23	71.0	49.8
[9	-3	-14]	(2	6	0)	(7	7	3)	2.839	1.271	2.23	51.6	67.1
[3	-1	10]	(2	6	0)	(-8	6	3)	2.839	1.268	2.24	76.3	47.8
[3	-1	-6]	(2	6	0)	(8	6	3)	2.839	1.268	2.24	55.1	61.5
[3	-1	7]	(2	6	0)	(-4	9	3)	2.839	1.268	2.24	58.5	57.6
[3	-1	-1]	(2	6	0)	(4	9	3)	2.839	1.268	2.24	46.3	84.8
[12	-4	-13]	(2	6	0)	(4	-1	4)	2.839	1.266	2.24	89.0	73.6
[12	-4	-11]	(2	6	0)	(4	1	4)	2.839	1.266	2.24	81.3	76.0
[12	-4	-1]	(2	6	0)	(-1	-4	4)	2.839	1.263	2.25	73.2	88.7
[9	-3	26]	(2	6	0)	(-6	8	3)	2.839	1.262	2.25	65.7	51.9
[9	-3	-10]	(2	6	0)	(6	8	3)	2.839	1.262	2.25	48.5	73.2
[3	-1	3]	(2	6	0)	(-3	3	4)	2.839	1.262	2.25	82.0	74.8
[6	-2	-3]	(2	6	0)	(3	3	4)	2.839	1.262	2.25	74.7	82.3
[3	-1	9]	(2	6	0)	(9	9	-2)	2.839	1.257	2.26	37.9	50.8
[9	-3	22]	(2	6	0)	(-9	-5	3)	2.839	1.252	2.27	58.7	56.4
[12	-4	-15]	(2	6	0)	(5	0	4)	2.839	1.243	2.28	84.1	71.2
[3	-1	8]	(2	6	0)	(-5	9	3)	2.839	1.242	2.29	60.6	54.1
[3	-1	-2]	(2	6	0)	(5	9	3)	2.839	1.242	2.29	45.8	79.7
[12	-4	15]	(2	6	0)	(-4	3	4)	2.839	1.242	2.29	83.4	71.2
[12	-4	-9]	(2	6	0)	(4	3	4)	2.839	1.242	2.29	73.7	78.5
[3	-1	-4]	(2	6	0)	(5	-1	4)	2.839	1.240	2.29	87.9	70.1
[6	-2	-7]	(2	6	0)	(5	1	4)	2.839	1.240	2.29	80.3	72.4
[12	-4	13]	(2	6	0)	(-3	4	4)	2.839	1.240	2.29	78.3	73.6
[12	-4	-5]	(2	6	0)	(3	4	4)	2.839	1.240	2.29	71.0	83.5
[3	-1	2]	(2	6	0)	(-1	5	4)	2.839	1.236	2.30	72.1	79.7
[6	-2	1]	(2	6	0)	(1	5	4)	2.839	1.236	2.30	69.6	87.4
[12	-4	17]	(2	6	0)	(-5	2	4)	2.839	1.231	2.31	88.4	69.0
[12	-4	-13]	(2	6	0)	(5	2	4)	2.839	1.231	2.31	76.5	73.6
[9	-3	31]	(2	6	0)	(-8	7	3)	2.839	1.228	2.31	72.9	46.9
[9	-3	-17]	(2	6	0)	(8	7	3)	2.839	1.228	2.31	51.7	62.8
[12	-4	11]	(2	6	0)	(-2	5	4)	2.839	1.228	2.31	73.4	76.0
[12	-4	-1]	(2	6	0)	(2	5	4)	2.839	1.228	2.31	68.5	88.7

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[9	-3	-29]	(2	6	0)	(-7	8	-3)	2.839	1.226	2.32	67.7	48.8
[9	-3	-13]	(2	6	0)	(7	8	3)	2.839	1.226	2.32	48.4	68.6
[6	-2	9]	(2	6	0)	(-5	3	4)	2.839	1.217	2.33	84.7	67.8
[3	-1	-3]	(2	6	0)	(5	3	4)	2.839	1.217	2.33	72.8	74.8
[6	-2	7]	(2	6	0)	(-3	5	4)	2.839	1.214	2.34	74.8	72.4
[3	-1	-1]	(2	6	0)	(3	5	4)	2.839	1.214	2.34	67.5	84.8
[12	-4	-19]	(2	6	0)	(6	-1	4)	2.839	1.211	2.35	86.8	66.7
[12	-4	-17]	(2	6	0)	(6	1	4)	2.839	1.211	2.35	79.3	69.0
[12	-4	9]	(2	6	0)	(-1	6	4)	2.839	1.205	2.36	68.6	78.5
[12	-4	3]	(2	6	0)	(1	6	4)	2.839	1.205	2.36	66.2	86.1
[12	-4	19]	(2	6	0)	(-5	4	4)	2.839	1.198	2.37	81.1	66.7
[12	-4	-11]	(2	6	0)	(5	4	4)	2.839	1.198	2.37	69.3	76.0
[12	-4	17]	(2	6	0)	(-4	5	4)	2.839	1.196	2.37	76.2	69.0
[12	-4	-7]	(2	6	0)	(4	5	4)	2.839	1.196	2.37	66.6	81.0
[12	-4	21]	(2	6	0)	(-6	3	4)	2.839	1.189	2.39	85.9	64.6
[12	-4	-15]	(2	6	0)	(6	3	4)	2.839	1.189	2.39	72.1	71.2
[9	-3	32]	(2	6	0)	(-8	8	3)	2.839	1.187	2.39	69.7	46.0
[9	-3	-16]	(2	6	0)	(8	8	3)	2.839	1.187	2.39	48.5	64.2
[9	-3	20]	(2	6	0)	(9	7	-3)	2.839	1.185	2.40	51.8	58.9
[12	-4	-15]	(2	6	0)	(3	-6	4)	2.839	1.185	2.40	71.4	71.2
[12	-4	-3]	(2	6	0)	(3	6	4)	2.839	1.185	2.40	64.1	86.1
[12	-4	-21]	(2	6	0)	(7	0	4)	2.839	1.181	2.40	82.1	64.6
[3	-1	10]	(2	6	0)	(-7	9	3)	2.839	1.179	2.41	64.7	47.8
[3	-1	-4]	(2	6	0)	(7	9	3)	2.839	1.179	2.41	45.5	70.1
[6	-2	-11]	(2	6	0)	(7	-1	4)	2.839	1.178	2.41	85.7	63.5
[3	-1	-5]	(2	6	0)	(7	1	4)	2.839	1.178	2.41	78.5	65.6
[3	-1	5]	(2	6	0)	(-5	5	4)	2.839	1.174	2.42	77.6	65.6
[6	-2	-5]	(2	6	0)	(5	5	4)	2.839	1.174	2.42	65.8	77.2
[12	-4	-23]	(2	6	0)	(7	-2	4)	2.839	1.171	2.43	89.3	62.5
[12	-4	-19]	(2	6	0)	(7	2	4)	2.839	1.171	2.43	74.9	66.7
[6	-2	5]	(2	6	0)	(-1	7	4)	2.839	1.171	2.43	65.4	77.2
[3	-1	1]	(2	6	0)	(1	7	4)	2.839	1.171	2.43	62.9	84.8
[12	-4	13]	(2	6	0)	(-2	7	4)	2.839	1.164	2.44	66.8	73.6
[12	-4	1]	(2	6	0)	(2	7	4)	2.839	1.164	2.44	61.9	88.7
[3	-1	6]	(2	6	0)	(-7	3	4)	2.839	1.158	2.45	87.1	61.5
[6	-2	-9]	(2	6	0)	(7	3	4)	2.839	1.158	2.45	71.4	67.8
[3	-1	4]	(2	6	0)	(-3	7	4)	2.839	1.152	2.46	68.2	70.1
[6	-2	-1]	(2	6	0)	(3	7	4)	2.839	1.152	2.46	60.9	87.4
[12	-4	23]	(2	6	0)	(-6	5	4)	2.839	1.149	2.47	79.0	62.5
[12	-4	-13]	(2	6	0)	(6	5	4)	2.839	1.149	2.47	65.2	73.6
[9	-3	19]	(2	6	0)	(9	8	-3)	2.839	1.148	2.47	48.7	60.2
[12	-4	21]	(2	6	0)	(-5	6	4)	2.839	1.148	2.47	74.3	64.6
[12	-4	-9]	(2	6	0)	(5	6	4)	2.839	1.148	2.47	62.5	78.5
[3	-1	-11]	(2	6	0)	(-8	9	-3)	2.839	1.145	2.48	66.7	45.1
[3	-1	5]	(2	6	0)	(-8	-9	3)	2.839	1.145	2.48	45.6	65.6
[12	-4	-25]	(2	6	0)	(8	-1	4)	2.839	1.144	2.48	84.8	60.5
[12	-4	-23]	(2	6	0)	(8	1	4)	2.839	1.144	2.48	77.7	62.5
[12	-4	25]	(2	6	0)	(-7	4	4)	2.839	1.142	2.49	83.7	60.5

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[12	-4	-17]	(2	6	0)	(7	4	4)	2.839	1.142	2.49	67.9	69.0
[12	-4	-19]	(2	6	0)	(-4	7	-4)	2.839	1.137	2.50	69.7	66.7
[12	-4	-5]	(2	6	0)	(4	7	4)	2.839	1.137	2.50	60.1	83.5
[12	-4	-11]	(2	6	0)	(1	-8	4)	2.839	1.135	2.50	62.4	76.0
[12	-4	5]	(2	6	0)	(1	8	4)	2.839	1.135	2.50	59.9	83.5
[12	-4	27]	(2	6	0)	(-8	3	4)	2.839	1.126	2.52	88.3	58.6
[12	-4	-21]	(2	6	0)	(8	3	4)	2.839	1.126	2.52	70.8	64.6
[6	-2	13]	(2	6	0)	(-7	5	4)	2.839	1.121	2.53	80.3	59.5
[3	-1	-4]	(2	6	0)	(7	5	4)	2.839	1.121	2.53	64.6	70.1
[6	-2	11]	(2	6	0)	(-5	7	4)	2.839	1.118	2.54	71.1	63.5
[3	-1	-2]	(2	6	0)	(5	7	4)	2.839	1.118	2.54	59.4	79.7
[12	-4	17]	(2	6	0)	(-3	8	4)	2.839	1.118	2.54	65.2	69.0
[12	-4	1]	(2	6	0)	(3	8	-4)	2.839	1.118	2.54	57.9	88.7
[12	-4	27]	(2	6	0)	(-9	0	4)	2.839	1.111	2.56	80.5	58.6
[6	-2	-13]	(2	6	0)	(9	1	4)	2.839	1.109	2.56	77.0	59.5
[12	-4	-29]	(2	6	0)	(9	-2	4)	2.839	1.102	2.58	87.3	56.7
[12	-4	-25]	(2	6	0)	(9	2	4)	2.839	1.102	2.58	73.6	60.5
[12	-4	27]	(2	6	0)	(-7	6	4)	2.839	1.098	2.59	77.1	58.6
[12	-4	-15]	(2	6	0)	(7	6	4)	2.839	1.098	2.59	61.5	71.2
[3	-1	3]	(2	6	0)	(-1	9	4)	2.839	1.098	2.59	59.5	74.8
[6	-2	3]	(2	6	0)	(1	9	4)	2.839	1.098	2.59	57.1	82.3
[12	-4	25]	(2	6	0)	(-6	7	4)	2.839	1.096	2.59	72.6	60.5
[12	-4	-11]	(2	6	0)	(6	7	4)	2.839	1.096	2.59	58.9	76.0
[12	-4	15]	(2	6	0)	(-2	9	4)	2.839	1.092	2.60	60.9	71.2
[12	-4	3]	(2	6	0)	(2	9	4)	2.839	1.092	2.60	56.0	86.1
[6	-2	15]	(2	6	0)	(-9	3	4)	2.839	1.092	2.60	89.4	55.8
[3	-1	-6]	(2	6	0)	(9	3	4)	2.839	1.092	2.60	70.3	61.5
[12	-4	29]	(2	6	0)	(-8	5	4)	2.839	1.092	2.60	81.6	56.7
[12	-4	-19]	(2	6	0)	(8	5	4)	2.839	1.092	2.60	64.2	66.7
[12	-4	23]	(2	6	0)	(-5	8	4)	2.839	1.087	2.61	68.2	62.5
[12	-4	-7]	(2	6	0)	(5	8	4)	2.839	1.087	2.61	56.5	81.0
[6	-2	-9]	(2	6	0)	(-3	9	-4)	2.839	1.083	2.62	62.3	67.8
[3	-1	0]	(2	6	0)	(3	9	-4)	2.839	1.083	2.62	55.1	90.0
[12	-4	-31]	(2	6	0)	(-9	4	-4)	2.839	1.078	2.63	86.1	54.9
[12	-4	-23]	(2	6	0)	(9	4	4)	2.839	1.078	2.63	67.0	62.5
[3	-1	7]	(2	6	0)	(-7	7	4)	2.839	1.072	2.65	74.1	57.6
[6	-2	-7]	(2	6	0)	(7	7	4)	2.839	1.072	2.65	58.4	72.4
[12	-4	21]	(2	6	0)	(-4	9	4)	2.839	1.070	2.65	63.8	64.6
[12	-4	-3]	(2	6	0)	(4	9	4)	2.839	1.070	2.65	54.3	86.1
[3	-1	8]	(2	6	0)	(-9	5	4)	2.839	1.061	2.68	82.9	54.1
[6	-2	-11]	(2	6	0)	(9	5	4)	2.839	1.061	2.68	63.9	63.5
[15	-5	-3]	(2	6	0)	(1	0	5)	2.839	1.054	2.69	89.0	86.9
[3	-1	6]	(2	6	0)	(-5	9	4)	2.839	1.054	2.69	65.4	61.5
[6	-2	-3]	(2	6	0)	(5	9	4)	2.839	1.054	2.69	53.7	82.3
[15	-5	1]	(2	6	0)	(0	1	5)	2.839	1.054	2.69	86.8	89.0
[15	-5	4]	(2	6	0)	(-1	1	5)	2.839	1.052	2.70	87.8	85.9
[15	-5	-2]	(2	6	0)	(1	1	5)	2.839	1.052	2.70	85.8	87.9
[15	-5	-6]	(2	6	0)	(2	0	5)	2.839	1.049	2.71	88.0	83.8

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Anthophyllite (260) 487 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[15	-5	7]	(2	6	0)	(-2	1	5)	2.839	1.047	2.71	88.8	82.8
[3	-1	-1]	(2	6	0)	(2	1	5)	2.839	1.047	2.71	84.8	84.8
[3	-1	1]	(2	6	0)	(-1	2	5)	2.839	1.047	2.71	84.6	84.8
[15	-5	-1]	(2	6	0)	(1	2	5)	2.839	1.047	2.71	82.6	89.0
[12	-4	31]	(2	6	0)	(-8	7	4)	2.839	1.046	2.71	75.5	54.9
[12	-4	-17]	(2	6	0)	(8	7	4)	2.839	1.046	2.71	58.1	69.0
[12	-4	29]	(2	6	0)	(-7	8	4)	2.839	1.044	2.72	71.2	56.7
[12	-4	-13]	(2	6	0)	(7	8	4)	2.839	1.044	2.72	55.6	73.6
[15	-5	8]	(2	6	0)	(-2	2	5)	2.839	1.042	2.72	85.6	81.8
[15	-5	-4]	(2	6	0)	(2	2	5)	2.839	1.042	2.72	81.6	85.9
[12	-4	33]	(2	6	0)	(-9	6	4)	2.839	1.041	2.73	79.8	53.2
[12	-4	-21]	(2	6	0)	(9	6	4)	2.839	1.041	2.73	60.8	64.6
[15	-5	-9]	(2	6	0)	(3	0	5)	2.839	1.041	2.73	87.0	80.7
[15	-5	3]	(2	6	0)	(0	3	5)	2.839	1.040	2.73	80.5	86.9
[3	-1	2]	(2	6	0)	(-3	1	5)	2.839	1.039	2.73	89.8	79.7
[15	-5	8]	(2	6	0)	(3	1	-5)	2.839	1.039	2.73	83.9	81.8
[15	-5	-6]	(2	6	0)	(1	-3	5)	2.839	1.038	2.73	81.5	83.8
[3	-1	0]	(2	6	0)	(1	3	5)	2.839	1.038	2.73	79.5	90.0
[12	-4	27]	(2	6	0)	(-6	9	4)	2.839	1.036	2.74	66.9	58.6
[12	-4	-9]	(2	6	0)	(6	9	4)	2.839	1.036	2.74	53.2	78.5
[15	-5	11]	(2	6	0)	(-3	2	5)	2.839	1.034	2.75	86.6	78.7
[15	-5	-7]	(2	6	0)	(3	2	5)	2.839	1.034	2.75	80.7	82.8
[15	-5	9]	(2	6	0)	(-2	3	5)	2.839	1.033	2.75	82.5	80.7
[15	-5	-3]	(2	6	0)	(2	3	5)	2.839	1.033	2.75	78.5	86.9
[15	-5	-12]	(2	6	0)	(4	0	5)	2.839	1.030	2.76	86.1	77.7
[15	-5	-13]	(2	6	0)	(4	-1	5)	2.839	1.028	2.76	89.2	76.8
[15	-5	-11]	(2	6	0)	(4	1	5)	2.839	1.028	2.76	82.9	78.7
[15	-5	7]	(2	6	0)	(-1	4	5)	2.839	1.026	2.77	78.4	82.8
[15	-5	1]	(2	6	0)	(1	4	5)	2.839	1.026	2.77	76.4	89.0
[15	-5	12]	(2	6	0)	(-3	3	5)	2.839	1.025	2.77	83.5	77.7
[15	-5	-6]	(2	6	0)	(3	3	5)	2.839	1.025	2.77	77.6	83.8
[15	-5	14]	(2	6	0)	(-4	2	5)	2.839	1.023	2.78	87.7	75.8
[3	-1	-2]	(2	6	0)	(4	2	5)	2.839	1.023	2.78	79.8	79.7
[3	-1	2]	(2	6	0)	(-2	4	5)	2.839	1.021	2.78	79.4	79.7
[15	-5	-2]	(2	6	0)	(2	4	5)	2.839	1.021	2.78	75.5	87.9
[6	-2	17]	(2	6	0)	(-9	7	4)	2.839	1.019	2.79	76.9	52.4
[3	-1	5]	(2	6	0)	(9	7	-4)	2.839	1.019	2.79	57.9	65.6
[6	-2	-15]	(2	6	0)	(7	-9	4)	2.839	1.015	2.80	68.4	55.8
[3	-1	-3]	(2	6	0)	(7	9	4)	2.839	1.015	2.80	52.9	74.8
[3	-1	3]	(2	6	0)	(-4	3	5)	2.839	1.015	2.80	84.6	74.8
[15	-5	-9]	(2	6	0)	(4	3	5)	2.839	1.015	2.80	76.8	80.7
[15	-5	-16]	(2	6	0)	(5	-1	5)	2.839	1.014	2.80	88.3	73.8
[15	-5	-14]	(2	6	0)	(5	1	5)	2.839	1.014	2.80	82.1	75.8
[15	-5	13]	(2	6	0)	(-3	4	5)	2.839	1.014	2.80	80.5	76.8
[3	-1	-1]	(2	6	0)	(3	4	5)	2.839	1.014	2.80	74.6	84.8
[15	-5	8]	(2	6	0)	(-1	5	5)	2.839	1.011	2.81	75.4	81.8
[15	-5	2]	(2	6	0)	(1	5	5)	2.839	1.011	2.81	73.4	87.9
[15	-5	17]	(2	6	0)	(-5	2	5)	2.839	1.009	2.81	88.6	72.9

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Anthophyllite (260) 487 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[15	-5	-13]	(2	6	0)	(5	2	5)	2.839	1.009	2.81	79.0	76.8
[15	-5	11]	(2	6	0)	(-2	5	5)	2.839	1.007	2.82	76.5	78.7
[15	-5	-1]	(2	6	0)	(2	5	5)	2.839	1.007	2.82	72.5	89.0
[15	-5	16]	(2	6	0)	(-4	4	5)	2.839	1.003	2.83	81.6	73.8
[15	-5	-8]	(2	6	0)	(4	4	5)	2.839	1.003	2.83	73.7	81.8
[15	-5	18]	(2	6	0)	(-5	3	5)	2.839	1.001	2.84	85.6	71.9
[15	-5	-12]	(2	6	0)	(5	3	5)	2.839	1.001	2.84	76.0	77.7

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Anthophyllite (450) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[5	-4	-5]	(4	5	0)	(1	0	1)	2.831	5.077	0.56	80.3	77.3
[5	-4	4]	(4	5	0)	(0	1	1)	2.831	5.064	0.56	77.1	79.8
[5	-4	9]	(4	5	0)	(-1	1	1)	2.831	4.885	0.58	86.9	67.9
[5	-4	-1]	(4	5	0)	(1	1	1)	2.831	4.885	0.58	67.8	87.4
[5	-4	-10]	(4	5	0)	(2	0	1)	2.831	4.586	0.62	72.3	65.7
[5	-4	-14]	(4	5	0)	(2	-1	1)	2.831	4.442	0.64	84.4	57.7
[5	-4	6]	(4	5	0)	(2	1	-1)	2.831	4.442	0.64	60.6	74.8
[5	-4	-13]	(4	5	0)	(1	-2	1)	2.831	4.416	0.64	75.9	59.6
[5	-4	3]	(4	5	0)	(1	2	1)	2.831	4.416	0.64	57.6	82.3
[5	-4	18]	(4	5	0)	(-2	2	1)	2.831	4.081	0.69	84.8	50.9
[5	-4	2]	(4	5	0)	(2	2	-1)	2.831	4.081	0.69	50.9	84.8
[5	-4	-15]	(4	5	0)	(3	0	1)	2.831	4.011	0.71	66.5	55.9
[5	-4	12]	(4	5	0)	(0	3	1)	2.831	3.954	0.72	58.4	61.6
[5	-4	-19]	(4	5	0)	(3	-1	1)	2.831	3.914	0.72	77.6	49.4
[5	-4	-11]	(4	5	0)	(3	1	1)	2.831	3.914	0.72	55.8	63.6
[5	-4	17]	(4	5	0)	(-1	3	1)	2.831	3.867	0.73	67.4	52.5
[5	-4	7]	(4	5	0)	(1	3	1)	2.831	3.867	0.73	50.2	72.5
[5	-4	-7]	(4	5	0)	(3	2	1)	2.831	3.660	0.77	46.6	72.5
[5	-4	22]	(4	5	0)	(-2	3	1)	2.831	3.636	0.78	76.0	45.2
[5	-4	2]	(4	5	0)	(2	3	1)	2.831	3.636	0.78	43.7	84.8
[5	-4	-20]	(4	5	0)	(4	0	1)	2.831	3.479	0.81	62.6	47.9
[5	-4	-16]	(4	5	0)	(4	1	1)	2.831	3.415	0.83	52.9	54.2
[5	-4	21]	(4	5	0)	(-1	4	1)	2.831	3.357	0.84	61.2	46.5
[5	-4	11]	(4	5	0)	(1	4	1)	2.831	3.357	0.84	45.2	63.6
[5	-4	3]	(4	5	0)	(3	3	-1)	2.831	3.329	0.85	39.5	82.3
[5	-4	12]	(4	5	0)	(-4	-2	1)	2.831	3.243	0.87	44.3	61.6
[5	-4	6]	(4	5	0)	(2	4	1)	2.831	3.203	0.88	38.9	74.8
[5	-4	-8]	(4	5	0)	(4	3	1)	2.831	3.005	0.94	37.2	70.1
[5	-4	-21]	(4	5	0)	(5	1	1)	2.831	2.988	0.95	51.2	46.5
[5	-4	1]	(4	5	0)	(3	4	1)	2.831	2.987	0.95	34.5	87.4
[5	-4	20]	(4	5	0)	(0	5	1)	2.831	2.963	0.96	49.1	47.9
[5	-4	15]	(4	5	0)	(1	5	1)	2.831	2.926	0.97	42.0	55.9
[5	-4	17]	(4	5	0)	(5	2	-1)	2.831	2.870	0.99	43.2	52.5
[5	-4	10]	(4	5	0)	(2	5	1)	2.831	2.822	1.00	35.9	65.7
[5	-4	4]	(4	5	0)	(4	4	-1)	2.831	2.747	1.03	31.9	79.8
[5	-4	13]	(4	5	0)	(-5	-3	1)	2.831	2.702	1.05	36.4	59.6
[5	-4	5]	(4	5	0)	(3	5	1)	2.831	2.671	1.06	31.2	77.3
[5	-4	0]	(4	5	0)	(0	0	2)	2.831	2.640	1.07	90.0	90.0
[10	-8	5]	(4	5	0)	(1	0	-2)	2.831	2.614	1.08	85.0	83.6
[10	-8	9]	(4	5	0)	(-1	1	2)	2.831	2.586	1.09	88.4	78.5
[10	-8	-1]	(4	5	0)	(1	1	2)	2.831	2.586	1.09	78.5	88.7
[5	-4	19]	(4	5	0)	(1	6	1)	2.831	2.572	1.10	39.9	49.4
[5	-4	-22]	(4	5	0)	(6	2	1)	2.831	2.552	1.11	42.9	45.2
[5	-4	-7]	(4	5	0)	(2	-1	2)	2.831	2.513	1.13	86.8	72.5
[5	-4	3]	(4	5	0)	(2	1	-2)	2.831	2.513	1.13	73.9	82.3
[5	-4	9]	(4	5	0)	(-5	-4	1)	2.831	2.509	1.13	30.9	67.9
[10	-8	13]	(4	5	0)	(-1	2	2)	2.831	2.509	1.13	82.0	73.6
[10	-8	3]	(4	5	0)	(1	2	2)	2.831	2.509	1.13	72.3	86.1

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Anthophyllite (450) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[5	-4	14]	(4	5	0)	(2	6	1)	2.831	2.501	1.13	34.1	57.7
[5	-4	0]	(4	5	0)	(4	5	-1)	2.831	2.495	1.13	28.2	90.0
[5	-4	18]	(4	5	0)	(6	3	-1)	2.831	2.431	1.16	36.4	50.9
[10	-8	15]	(4	5	0)	(-3	0	2)	2.831	2.427	1.17	76.1	71.3
[10	-8	-19]	(4	5	0)	(3	-1	2)	2.831	2.405	1.18	82.4	66.8
[10	-8	-11]	(4	5	0)	(3	1	2)	2.831	2.405	1.18	69.8	76.1
[10	-8	17]	(4	5	0)	(-1	3	2)	2.831	2.394	1.18	76.2	69.0
[10	-8	7]	(4	5	0)	(1	3	2)	2.831	2.394	1.18	66.6	81.0
[5	-4	-9]	(4	5	0)	(3	6	-1)	2.831	2.394	1.18	29.3	67.9
[10	-8	23]	(4	5	0)	(3	-2	-2)	2.831	2.342	1.21	88.5	62.6
[10	-8	-7]	(4	5	0)	(3	2	2)	2.831	2.342	1.21	63.9	81.0
[5	-4	11]	(4	5	0)	(-2	3	2)	2.831	2.336	1.21	81.1	63.6
[5	-4	1]	(4	5	0)	(2	3	2)	2.831	2.336	1.21	62.3	87.4
[5	-4	-5]	(4	5	0)	(5	5	1)	2.831	2.313	1.22	26.7	77.3
[5	-4	-12]	(4	5	0)	(4	-1	2)	2.831	2.274	1.24	78.4	61.6
[5	-4	-8]	(4	5	0)	(4	1	2)	2.831	2.274	1.24	66.3	70.1
[5	-4	4]	(4	5	0)	(4	6	1)	2.831	2.265	1.25	25.8	79.8
[10	-8	21]	(4	5	0)	(-1	4	2)	2.831	2.257	1.25	71.1	64.6
[10	-8	11]	(4	5	0)	(1	4	2)	2.831	2.257	1.25	61.7	76.1
[10	-8	27]	(4	5	0)	(-3	3	2)	2.831	2.248	1.26	85.7	58.6
[10	-8	3]	(4	5	0)	(3	3	-2)	2.831	2.248	1.26	58.6	86.1
[5	-4	18]	(4	5	0)	(2	7	1)	2.831	2.233	1.27	33.0	50.9
[10	-8	-25]	(4	5	0)	(5	0	2)	2.831	2.149	1.32	69.2	60.6
[5	-4	16]	(4	5	0)	(-4	3	2)	2.831	2.140	1.32	90.0	54.2
[5	-4	-4]	(4	5	0)	(4	3	2)	2.831	2.140	1.32	55.5	79.8
[5	-4	-10]	(4	5	0)	(6	5	1)	2.831	2.136	1.33	26.4	65.7
[10	-8	-29]	(4	5	0)	(5	-1	2)	2.831	2.134	1.33	75.0	56.8
[10	-8	-21]	(4	5	0)	(5	1	2)	2.831	2.134	1.33	63.4	64.6
[10	-8	31]	(4	5	0)	(-3	4	2)	2.831	2.133	1.33	80.5	55.0
[10	-8	1]	(4	5	0)	(3	4	2)	2.831	2.133	1.33	53.9	88.7
[5	-4	-1]	(4	5	0)	(5	6	1)	2.831	2.126	1.33	23.8	87.4
[10	-8	25]	(4	5	0)	(-1	5	2)	2.831	2.111	1.34	66.6	60.6
[10	-8	15]	(4	5	0)	(1	5	2)	2.831	2.111	1.34	57.6	71.3
[5	-4	19]	(4	5	0)	(7	4	-1)	2.831	2.090	1.35	31.4	49.4
[10	-8	-33]	(4	5	0)	(5	-2	2)	2.831	2.090	1.35	80.7	53.3
[10	-8	-17]	(4	5	0)	(5	2	2)	2.831	2.090	1.35	58.0	69.0
[5	-4	15]	(4	5	0)	(-2	5	2)	2.831	2.071	1.37	71.3	55.9
[5	-4	5]	(4	5	0)	(2	5	2)	2.831	2.071	1.37	53.5	77.3
[5	-4	8]	(4	5	0)	(4	7	1)	2.831	2.060	1.37	24.5	70.1
[10	-8	-37]	(4	5	0)	(5	-3	2)	2.831	2.022	1.40	86.2	50.1
[10	-8	-13]	(4	5	0)	(5	3	2)	2.831	2.022	1.40	53.0	73.6
[5	-4	22]	(4	5	0)	(2	8	1)	2.831	2.011	1.41	32.5	45.2
[10	-8	35]	(4	5	0)	(-3	5	2)	2.831	2.009	1.41	75.9	51.7
[10	-8	5]	(4	5	0)	(3	5	2)	2.831	2.009	1.41	50.0	83.6
[5	-4	-17]	(4	5	0)	(6	-1	2)	2.831	1.993	1.42	72.1	52.5
[5	-4	-13]	(4	5	0)	(6	1	2)	2.831	1.993	1.42	61.1	59.6
[5	-4	6]	(4	5	0)	(6	6	-1)	2.831	1.986	1.43	22.9	74.8
[5	-4	15]	(4	5	0)	(7	5	-1)	2.831	1.972	1.44	26.8	55.9

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Anthophyllite (450) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[10	-8	-29]	(4	5	0)	(1	-6	2)	2.831	1.966	1.44	62.9	56.8
[10	-8	19]	(4	5	0)	(1	6	2)	2.831	1.966	1.44	54.1	66.8
[5	-4	17]	(4	5	0)	(3	8	1)	2.831	1.954	1.45	27.8	52.5
[10	-8	41]	(4	5	0)	(-5	4	2)	2.831	1.937	1.46	88.7	47.2
[10	-8	9]	(4	5	0)	(5	4	-2)	2.831	1.937	1.46	48.5	78.5
[5	-4	20]	(4	5	0)	(-4	5	2)	2.831	1.931	1.47	80.2	47.9
[5	-4	0]	(4	5	0)	(4	5	-2)	2.831	1.931	1.47	47.0	90.0
[5	-4	21]	(4	5	0)	(-6	3	2)	2.831	1.901	1.49	82.8	46.5
[5	-4	9]	(4	5	0)	(6	3	-2)	2.831	1.901	1.49	51.0	67.9
[10	-8	-39]	(4	5	0)	(3	-6	2)	2.831	1.883	1.50	71.8	48.6
[10	-8	-9]	(4	5	0)	(3	6	-2)	2.831	1.883	1.50	46.7	78.5
[5	-4	-12]	(4	5	0)	(-4	-8	1)	2.831	1.882	1.50	23.9	61.6
[10	-8	-35]	(4	5	0)	(7	0	2)	2.831	1.868	1.52	64.4	51.7
[10	-8	-39]	(4	5	0)	(7	-1	2)	2.831	1.858	1.52	69.6	48.6
[10	-8	31]	(4	5	0)	(7	1	-2)	2.831	1.858	1.52	59.2	55.0
[5	-4	-11]	(4	5	0)	(7	6	1)	2.831	1.852	1.53	23.1	63.6
[5	-4	2]	(4	5	0)	(6	7	-1)	2.831	1.844	1.53	20.5	84.8
[10	-8	-5]	(4	5	0)	(5	5	2)	2.831	1.843	1.54	44.6	83.6
[10	-8	-43]	(4	5	0)	(7	-2	2)	2.831	1.828	1.55	74.8	45.9
[10	-8	-27]	(4	5	0)	(7	2	2)	2.831	1.828	1.55	54.2	58.6
[10	-8	33]	(4	5	0)	(-1	7	2)	2.831	1.828	1.55	59.7	53.3
[10	-8	23]	(4	5	0)	(1	7	2)	2.831	1.828	1.55	51.3	62.6
[5	-4	20]	(4	5	0)	(8	5	-1)	2.831	1.823	1.55	27.7	47.9
[5	-4	19]	(4	5	0)	(-2	7	2)	2.831	1.802	1.57	64.0	49.4
[5	-4	9]	(4	5	0)	(2	7	2)	2.831	1.802	1.57	47.4	67.9
[5	-4	7]	(4	5	0)	(5	8	1)	2.831	1.800	1.57	20.9	72.5
[10	-8	-23]	(4	5	0)	(7	3	2)	2.831	1.782	1.59	49.5	62.6
[5	-4	21]	(4	5	0)	(3	9	1)	2.831	1.782	1.59	27.7	46.5
[10	-8	43]	(4	5	0)	(-3	7	2)	2.831	1.760	1.61	68.3	45.9
[10	-8	-13]	(4	5	0)	(3	7	-2)	2.831	1.760	1.61	44.0	73.6
[15	-12	-5]	(4	5	0)	(1	0	3)	2.831	1.752	1.62	86.7	85.7
[15	-12	4]	(4	5	0)	(0	1	3)	2.831	1.752	1.62	85.6	86.6
[5	-4	-5]	(4	5	0)	(6	5	2)	2.831	1.750	1.62	42.8	77.3
[5	-4	3]	(4	5	0)	(-1	1	3)	2.831	1.744	1.62	88.9	82.3
[15	-12	-1]	(4	5	0)	(1	1	3)	2.831	1.744	1.62	82.3	89.1
[10	-8	-1]	(4	5	0)	(5	6	2)	2.831	1.744	1.62	41.4	88.7
[5	-4	-7]	(4	5	0)	(7	7	1)	2.831	1.736	1.63	20.2	72.5
[5	-4	-22]	(4	5	0)	(8	-1	2)	2.831	1.731	1.64	67.6	45.2
[5	-4	18]	(4	5	0)	(8	1	-2)	2.831	1.731	1.64	57.7	50.9
[15	-12	10]	(4	5	0)	(-2	0	3)	2.831	1.729	1.64	83.4	81.4
[5	-4	-16]	(4	5	0)	(8	6	1)	2.831	1.727	1.64	23.8	54.2
[5	-4	16]	(4	5	0)	(4	9	1)	2.831	1.727	1.64	23.8	54.2
[10	-8	19]	(4	5	0)	(7	4	-2)	2.831	1.724	1.64	45.3	66.8
[15	-12	14]	(4	5	0)	(-2	1	3)	2.831	1.721	1.64	87.8	78.1
[5	-4	-2]	(4	5	0)	(2	1	3)	2.831	1.721	1.64	79.1	84.8
[15	-12	13]	(4	5	0)	(-1	2	3)	2.831	1.719	1.65	84.5	78.9
[5	-4	1]	(4	5	0)	(1	2	3)	2.831	1.719	1.65	77.9	87.4
[5	-4	2]	(4	5	0)	(6	8	1)	2.831	1.713	1.65	19.0	84.8

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Anthophyllite (450) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U V W]	(h k 0)	(h k l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[5 -4 4]	(4 5 0)	(4 7 2)	2.831	1.707	1.66	41.1	79.8
[5 -4 16]	(4 5 0)	(0 8 2)	2.831	1.707	1.66	52.9	54.2
[10 -8 37]	(4 5 0)	(-1 8 2)	2.831	1.700	1.67	57.0	50.1
[10 -8 27]	(4 5 0)	(1 8 2)	2.831	1.700	1.67	48.9	58.6
[5 -4 6]	(4 5 0)	(-2 2 3)	2.831	1.698	1.67	87.8	74.8
[15 -12 -2]	(4 5 0)	(2 2 3)	2.831	1.698	1.67	74.8	88.3
[15 -12 -11]	(4 5 0)	(3 1 3)	2.831	1.685	1.68	76.0	80.6
[15 -12 17]	(4 5 0)	(-1 3 3)	2.831	1.681	1.68	80.4	75.7
[15 -12 7]	(4 5 0)	(1 3 3)	2.831	1.681	1.68	73.8	84.0
[5 -4 -14]	(4 5 0)	(8 3 2)	2.831	1.670	1.70	48.4	57.7
[15 -12 7]	(4 5 0)	(-3 -2 3)	2.831	1.663	1.70	71.8	84.0
[5 -4 11]	(4 5 0)	(5 9 1)	2.831	1.663	1.70	20.6	63.6
[15 -12 22]	(4 5 0)	(-2 3 3)	2.831	1.661	1.70	83.7	71.7
[15 -12 2]	(4 5 0)	(2 3 3)	2.831	1.661	1.70	70.7	88.3
[10 -8 15]	(4 5 0)	(7 5 -2)	2.831	1.656	1.71	41.5	71.3
[10 -8 3]	(4 5 0)	(5 7 2)	2.831	1.645	1.72	38.7	86.1
[10 -8 17]	(4 5 0)	(3 8 2)	2.831	1.645	1.72	41.9	69.0
[15 -12 -20]	(4 5 0)	(4 0 3)	2.831	1.645	1.72	77.4	73.3
[5 -4 -8]	(4 5 0)	(4 -1 3)	2.831	1.638	1.73	81.7	70.1
[15 -12 -16]	(4 5 0)	(4 1 3)	2.831	1.638	1.73	73.2	76.5
[5 -4 7]	(4 5 0)	(-1 4 3)	2.831	1.631	1.74	76.4	72.5
[15 -12 11]	(4 5 0)	(1 4 3)	2.831	1.631	1.74	70.0	80.6
[5 -4 -12]	(4 5 0)	(8 7 1)	2.831	1.631	1.74	20.6	61.6
[15 -12 -28]	(4 5 0)	(4 -2 3)	2.831	1.618	1.75	85.9	67.2
[5 -4 -4]	(4 5 0)	(4 2 3)	2.831	1.618	1.75	69.1	79.8
[10 -8 41]	(4 5 0)	(9 1 -2)	2.831	1.615	1.75	56.5	47.2
[15 -12 -26]	(4 5 0)	(-2 4 -3)	2.831	1.613	1.76	79.7	68.6
[5 -4 2]	(4 5 0)	(2 4 3)	2.831	1.613	1.76	66.9	84.8
[5 -4 21]	(4 5 0)	(9 6 -1)	2.831	1.612	1.76	24.9	46.5
[10 -8 37]	(4 5 0)	(9 2 -2)	2.831	1.596	1.77	52.0	50.1
[5 -4 -6]	(4 5 0)	(-6 -9 1)	2.831	1.593	1.78	18.2	74.8
[15 -12 -25]	(4 5 0)	(5 0 3)	2.831	1.589	1.78	74.8	69.4
[15 -12 32]	(4 5 0)	(-4 3 3)	2.831	1.586	1.79	90.0	64.3
[15 -12 -8]	(4 5 0)	(4 3 3)	2.831	1.586	1.79	65.2	83.1
[15 -12 -29]	(4 5 0)	(5 -1 3)	2.831	1.583	1.79	78.9	66.4
[5 -4 -7]	(4 5 0)	(5 1 3)	2.831	1.583	1.79	70.6	72.5
[10 -8 -11]	(4 5 0)	(7 6 2)	2.831	1.583	1.79	38.2	76.1
[15 -12 31]	(4 5 0)	(-3 4 3)	2.831	1.583	1.79	83.0	65.0
[15 -12 1]	(4 5 0)	(3 4 3)	2.831	1.583	1.79	64.1	89.1
[10 -8 41]	(4 5 0)	(-1 9 2)	2.831	1.583	1.79	54.8	47.2
[10 -8 31]	(4 5 0)	(1 9 2)	2.831	1.583	1.79	47.0	55.0
[15 -12 20]	(4 5 0)	(0 5 3)	2.831	1.579	1.79	69.6	73.3
[5 -4 1]	(4 5 0)	(6 7 -2)	2.831	1.578	1.79	36.8	87.4
[15 -12 25]	(4 5 0)	(-1 5 3)	2.831	1.574	1.80	72.8	69.4
[5 -4 5]	(4 5 0)	(1 5 3)	2.831	1.574	1.80	66.4	77.3
[5 -4 13]	(4 5 0)	(2 9 2)	2.831	1.566	1.81	43.4	59.6
[10 -8 -33]	(4 5 0)	(9 3 2)	2.831	1.565	1.81	47.7	53.3
[5 -4 -11]	(4 5 0)	(5 -2 3)	2.831	1.565	1.81	83.1	63.6

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Anthophyllite (450) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U V W]	(h k 0)	(h k l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[15 -12 -17]	(4 5 0)	(5 2 3)	2.831	1.565	1.81	66.6	75.7
[5 -4 10]	(4 5 0)	(8 5 -2)	2.831	1.565	1.81	40.6	65.7
[5 -4 -10]	(4 5 0)	(2 -5 3)	2.831	1.557	1.82	76.1	65.7
[15 -12 10]	(4 5 0)	(2 5 3)	2.831	1.557	1.82	63.5	81.4
[10 -8 7]	(4 5 0)	(5 8 2)	2.831	1.550	1.83	36.5	81.0
[5 -4 12]	(4 5 0)	(-4 4 3)	2.831	1.544	1.83	86.1	61.6
[15 -12 -4]	(4 5 0)	(4 4 3)	2.831	1.544	1.83	61.5	86.6
[10 -8 21]	(4 5 0)	(3 9 2)	2.831	1.538	1.84	40.2	64.6
[5 -4 8]	(4 5 0)	(8 8 -1)	2.831	1.538	1.84	18.0	70.1
[15 -12 37]	(4 5 0)	(-5 3 3)	2.831	1.536	1.84	87.1	60.9
[15 -12 -13]	(4 5 0)	(5 3 3)	2.831	1.536	1.84	62.8	78.9
[5 -4 17]	(4 5 0)	(9 7 -1)	2.831	1.533	1.85	21.5	52.5
[15 -12 35]	(4 5 0)	(-3 5 3)	2.831	1.530	1.85	79.3	62.2
[15 -12 5]	(4 5 0)	(3 5 3)	2.831	1.530	1.85	60.7	85.7
[10 -8 -29]	(4 5 0)	(9 4 2)	2.831	1.525	1.86	43.7	56.8
[15 -12 -34]	(4 5 0)	(6 -1 3)	2.831	1.523	1.86	76.4	62.9
[15 -12 26]	(4 5 0)	(6 1 -3)	2.831	1.523	1.86	68.3	68.6
[5 -4 -1]	(4 5 0)	(7 9 -1)	2.831	1.522	1.86	16.8	87.4
[15 -12 29]	(4 5 0)	(-1 6 3)	2.831	1.511	1.87	69.5	66.4
[15 -12 19]	(4 5 0)	(1 6 3)	2.831	1.511	1.87	63.2	74.0
[10 -8 -7]	(4 5 0)	(7 7 2)	2.831	1.508	1.88	35.3	81.0
[15 -12 -38]	(4 5 0)	(6 -2 3)	2.831	1.507	1.88	80.4	60.2
[15 -12 -22]	(4 5 0)	(6 2 3)	2.831	1.507	1.88	64.4	71.7
[5 -4 8]	(4 5 0)	(4 9 2)	2.831	1.502	1.88	37.2	70.1
[15 -12 41]	(4 5 0)	(-5 4 3)	2.831	1.498	1.89	89.0	58.3
[5 -4 3]	(4 5 0)	(5 4 -3)	2.831	1.498	1.89	59.2	82.3
[15 -12 -34]	(4 5 0)	(2 -6 3)	2.831	1.496	1.89	72.7	62.9
[15 -12 14]	(4 5 0)	(2 6 3)	2.831	1.496	1.89	60.3	78.1
[15 -12 40]	(4 5 0)	(-4 5 3)	2.831	1.495	1.89	82.4	59.0
[5 -4 0]	(4 5 0)	(4 5 3)	2.831	1.495	1.89	58.1	90.0
[10 -8 25]	(4 5 0)	(-9 -5 2)	2.831	1.477	1.92	40.0	60.6
[5 -4 -13]	(4 5 0)	(7 -1 3)	2.831	1.460	1.94	74.1	59.6
[15 -12 -31]	(4 5 0)	(7 1 3)	2.831	1.460	1.94	66.3	65.0
[10 -8 11]	(4 5 0)	(5 9 2)	2.831	1.460	1.94	34.7	76.1
[5 -4 -13]	(4 5 0)	(9 8 1)	2.831	1.455	1.95	18.6	59.6
[5 -4 15]	(4 5 0)	(-5 5 3)	2.831	1.453	1.95	85.4	55.9
[15 -12 -5]	(4 5 0)	(5 5 3)	2.831	1.453	1.95	55.9	85.7
[5 -4 4]	(4 5 0)	(8 9 -1)	2.831	1.450	1.95	16.2	79.8
[15 -12 -28]	(4 5 0)	(0 -7 3)	2.831	1.450	1.95	63.4	67.2
[15 -12 -46]	(4 5 0)	(6 -4 3)	2.831	1.446	1.96	88.2	55.3
[15 -12 -14]	(4 5 0)	(6 4 3)	2.831	1.446	1.96	57.1	78.1
[15 -12 -43]	(4 5 0)	(7 -2 3)	2.831	1.446	1.96	78.0	57.1
[5 -4 -9]	(4 5 0)	(7 2 3)	2.831	1.446	1.96	62.4	67.9
[5 -4 11]	(4 5 0)	(-1 7 3)	2.831	1.445	1.96	66.5	63.6
[15 -12 23]	(4 5 0)	(1 7 3)	2.831	1.445	1.96	60.3	70.9
[15 -12 44]	(4 5 0)	(-4 6 3)	2.831	1.440	1.97	79.0	56.5
[15 -12 4]	(4 5 0)	(4 6 3)	2.831	1.440	1.97	55.1	86.6
[5 -4 -6]	(4 5 0)	(8 7 2)	2.831	1.438	1.97	34.4	74.8

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Anthophyllite (450) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[10	-8	3]	(4	5	0)	(7	8	-2)	2.831	1.434	1.97	33.0	86.1
[15	-12	38]	(4	5	0)	(-2	7	3)	2.831	1.432	1.98	69.6	60.2
[5	-4	6]	(4	5	0)	(2	7	3)	2.831	1.432	1.98	57.5	74.8
[10	-8	21]	(4	5	0)	(9	6	-2)	2.831	1.425	1.99	36.7	64.6
[15	-12	47]	(4	5	0)	(-7	3	3)	2.831	1.423	1.99	81.9	54.7
[15	-12	-23]	(4	5	0)	(7	3	3)	2.831	1.423	1.99	58.8	70.9
[5	-4	3]	(4	5	0)	(6	9	2)	2.831	1.412	2.00	32.7	82.3
[15	-12	43]	(4	5	0)	(-3	7	3)	2.831	1.411	2.01	72.8	57.1
[15	-12	-13]	(4	5	0)	(3	7	-3)	2.831	1.411	2.01	54.8	78.9
[15	-12	50]	(4	5	0)	(-6	5	3)	2.831	1.406	2.01	88.2	53.0
[15	-12	-10]	(4	5	0)	(6	5	3)	2.831	1.406	2.01	53.9	81.4
[15	-12	49]	(4	5	0)	(-5	6	3)	2.831	1.403	2.02	82.0	53.6
[15	-12	-1]	(4	5	0)	(5	6	3)	2.831	1.403	2.02	52.9	89.1
[15	-12	-40]	(4	5	0)	(8	0	3)	2.831	1.401	2.02	68.2	59.0
[15	-12	-44]	(4	5	0)	(8	-1	3)	2.831	1.396	2.03	72.1	56.5
[5	-4	-12]	(4	5	0)	(8	1	3)	2.831	1.396	2.03	64.5	61.6
[5	-4	-17]	(4	5	0)	(7	-4	3)	2.831	1.392	2.03	85.6	52.5
[15	-12	19]	(4	5	0)	(7	4	-3)	2.831	1.392	2.03	55.4	74.0
[5	-4	16]	(4	5	0)	(-8	2	3)	2.831	1.384	2.05	75.9	54.2
[15	-12	-32]	(4	5	0)	(8	2	3)	2.831	1.384	2.05	60.8	64.3
[15	-12	8]	(4	5	0)	(4	7	3)	2.831	1.383	2.05	52.3	83.1
[5	-4	-9]	(4	5	0)	(9	9	1)	2.831	1.380	2.05	16.4	67.9
[15	-12	37]	(4	5	0)	(-1	8	3)	2.831	1.379	2.05	63.8	60.9
[10	-8	17]	(4	5	0)	(-9	-7	2)	2.831	1.370	2.07	33.8	69.0
[5	-4	14]	(4	5	0)	(-2	8	3)	2.831	1.368	2.07	66.9	57.7
[15	-12	22]	(4	5	0)	(2	8	3)	2.831	1.368	2.07	55.0	71.7
[15	-12	-52]	(4	5	0)	(8	-3	3)	2.831	1.363	2.08	79.6	52.0
[15	-12	-28]	(4	5	0)	(8	3	3)	2.831	1.363	2.08	57.2	67.2
[10	-8	-1]	(4	5	0)	(7	9	-2)	2.831	1.362	2.08	31.1	88.7
[15	-12	-53]	(4	5	0)	(-5	7	-3)	2.831	1.350	2.10	78.8	51.4
[5	-4	1]	(4	5	0)	(5	7	3)	2.831	1.350	2.10	50.2	87.4
[15	-12	47]	(4	5	0)	(-3	8	3)	2.831	1.350	2.10	69.9	54.7
[15	-12	17]	(4	5	0)	(3	8	3)	2.831	1.350	2.10	52.3	75.7
[15	-12	-56]	(4	5	0)	(8	-4	3)	2.831	1.337	2.12	83.2	49.9
[5	-4	8]	(4	5	0)	(8	4	-3)	2.831	1.337	2.12	53.8	70.1
[15	-12	49]	(4	5	0)	(-9	1	3)	2.831	1.333	2.12	70.2	53.6
[15	-12	41]	(4	5	0)	(9	1	-3)	2.831	1.333	2.12	62.9	58.3
[15	-12	52]	(4	5	0)	(-4	8	3)	2.831	1.325	2.14	73.0	52.0
[5	-4	4]	(4	5	0)	(4	8	3)	2.831	1.325	2.14	49.9	79.8
[15	-12	-53]	(4	5	0)	(9	-2	3)	2.831	1.322	2.14	73.9	51.4
[15	-12	37]	(4	5	0)	(9	2	-3)	2.831	1.322	2.14	59.3	60.9
[20	-16	-5]	(4	5	0)	(1	0	4)	2.831	1.317	2.15	87.5	86.8
[15	-12	59]	(4	5	0)	(-7	6	3)	2.831	1.315	2.15	87.5	48.4
[15	-12	-11]	(4	5	0)	(7	6	3)	2.831	1.315	2.15	49.2	80.6
[15	-12	41]	(4	5	0)	(-1	9	3)	2.831	1.315	2.15	61.4	58.3
[15	-12	31]	(4	5	0)	(1	9	3)	2.831	1.315	2.15	55.5	65.0
[10	-8	-13]	(4	5	0)	(9	8	2)	2.831	1.313	2.16	31.2	73.6
[20	-16	9]	(4	5	0)	(-1	1	4)	2.831	1.313	2.16	89.2	84.2

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Anthophyllite (450) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U V W]	(h k 0)	(h k l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[20 -16 -1]	(4 5 0)	(1 1 4)	2.831	1.313	2.16	84.2	89.4
[15 -12 58]	(4 5 0)	(-6 7 3)	2.831	1.312	2.16	81.6	48.9
[15 -12 2]	(4 5 0)	(6 7 -3)	2.831	1.312	2.16	48.2	88.3
[5 -4 -2]	(4 5 0)	(8 9 2)	2.831	1.309	2.16	29.9	84.8
[5 -4 -2]	(4 5 0)	(0 2 -4)	2.831	1.306	2.17	83.4	84.8
[15 -12 46]	(4 5 0)	(-2 9 3)	2.831	1.305	2.17	64.4	55.3
[15 -12 26]	(4 5 0)	(2 9 3)	2.831	1.305	2.17	52.8	68.6
[5 -4 -20]	(4 5 0)	(8 -5 3)	2.831	1.304	2.17	86.7	47.9
[15 -12 20]	(4 5 0)	(8 5 -3)	2.831	1.304	2.17	50.7	73.3
[10 -8 7]	(4 5 0)	(-2 1 4)	2.831	1.303	2.17	88.4	81.0
[10 -8 -3]	(4 5 0)	(2 1 4)	2.831	1.303	2.17	81.7	86.1
[20 -16 13]	(4 5 0)	(-1 2 4)	2.831	1.303	2.17	85.9	81.7
[20 -16 3]	(4 5 0)	(1 2 4)	2.831	1.303	2.17	80.9	88.1
[5 -4 19]	(4 5 0)	(-5 8 3)	2.831	1.296	2.18	75.9	49.4
[15 -12 7]	(4 5 0)	(5 8 3)	2.831	1.296	2.18	47.8	84.0
[20 -16 -15]	(4 5 0)	(3 0 4)	2.831	1.291	2.19	82.6	80.4
[20 -16 -19]	(4 5 0)	(3 -1 4)	2.831	1.287	2.20	85.9	77.9
[20 -16 -11]	(4 5 0)	(3 1 4)	2.831	1.287	2.20	79.4	82.9
[20 -16 17]	(4 5 0)	(-1 3 4)	2.831	1.286	2.20	82.7	79.1
[20 -16 7]	(4 5 0)	(1 3 4)	2.831	1.286	2.20	77.7	85.5
[15 -12 -61]	(4 5 0)	(9 -4 3)	2.831	1.281	2.21	81.1	47.5
[15 -12 -29]	(4 5 0)	(9 4 3)	2.831	1.281	2.21	52.6	66.4
[20 -16 -23]	(4 5 0)	(3 -2 4)	2.831	1.278	2.22	89.2	75.5
[20 -16 -7]	(4 5 0)	(3 2 4)	2.831	1.278	2.22	76.1	85.5
[10 -8 11]	(4 5 0)	(-2 3 4)	2.831	1.277	2.22	85.1	76.1
[10 -8 1]	(4 5 0)	(2 3 4)	2.831	1.277	2.22	75.3	88.7
[5 -4 21]	(4 5 0)	(-7 7 3)	2.831	1.271	2.23	84.3	46.5
[15 -12 -7]	(4 5 0)	(7 7 3)	2.831	1.271	2.23	46.6	84.0
[15 -12 56]	(4 5 0)	(-4 9 3)	2.831	1.268	2.23	70.4	49.9
[15 -12 16]	(4 5 0)	(4 9 3)	2.831	1.268	2.23	47.8	76.5
[5 -4 -6]	(4 5 0)	(4 -1 4)	2.831	1.266	2.24	83.6	74.8
[5 -4 -4]	(4 5 0)	(4 1 4)	2.831	1.266	2.24	77.1	79.8
[15 -12 62]	(4 5 0)	(-6 8 3)	2.831	1.262	2.24	78.7	47.0
[15 -12 2]	(4 5 0)	(6 8 3)	2.831	1.262	2.24	45.8	88.3
[20 -16 27]	(4 5 0)	(-3 3 4)	2.831	1.262	2.24	87.6	73.1
[20 -16 -3]	(4 5 0)	(3 3 4)	2.831	1.262	2.24	73.0	88.1
[10 -8 -9]	(4 5 0)	(9 9 2)	2.831	1.257	2.25	29.1	78.5
[15 -12 -25]	(4 5 0)	(9 5 3)	2.831	1.252	2.26	49.5	69.4
[20 -16 -25]	(4 5 0)	(5 0 4)	2.831	1.243	2.28	78.1	74.2
[15 -12 61]	(4 5 0)	(-5 9 3)	2.831	1.242	2.28	73.2	47.5
[15 -12 11]	(4 5 0)	(5 9 3)	2.831	1.242	2.28	45.6	80.6
[5 -4 8]	(4 5 0)	(-4 3 4)	2.831	1.242	2.28	90.0	70.1
[5 -4 -2]	(4 5 0)	(4 3 4)	2.831	1.242	2.28	70.8	84.8
[20 -16 -29]	(4 5 0)	(5 -1 4)	2.831	1.240	2.28	81.4	71.9
[20 -16 -21]	(4 5 0)	(5 1 4)	2.831	1.240	2.28	74.9	76.7
[20 -16 31]	(4 5 0)	(-3 4 4)	2.831	1.240	2.28	84.5	70.7
[20 -16 1]	(4 5 0)	(3 4 4)	2.831	1.240	2.28	70.0	89.4
[20 -16 25]	(4 5 0)	(-1 5 4)	2.831	1.236	2.29	76.6	74.2

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Anthophyllite (450) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U V W]	(h k 0)	(h k l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[20 -16 15]	(4 5 0)	(1 5 4)	2.831	1.236	2.29	71.7	80.4
[20 -16 -33]	(4 5 0)	(5 -2 4)	2.831	1.231	2.30	84.6	69.6
[20 -16 -17]	(4 5 0)	(5 2 4)	2.831	1.231	2.30	71.8	79.1
[5 -4 -4]	(4 5 0)	(8 7 3)	2.831	1.228	2.30	45.2	79.8
[10 -8 15]	(4 5 0)	(-2 5 4)	2.831	1.228	2.31	79.1	71.3
[10 -8 5]	(4 5 0)	(2 5 4)	2.831	1.228	2.31	69.4	83.6
[5 -4 -1]	(4 5 0)	(7 8 3)	2.831	1.226	2.31	44.2	87.4
[20 -16 13]	(4 5 0)	(-5 -3 4)	2.831	1.217	2.33	68.7	81.7
[20 -16 35]	(4 5 0)	(-3 5 4)	2.831	1.214	2.33	81.5	68.4
[20 -16 5]	(4 5 0)	(3 5 4)	2.831	1.214	2.33	67.1	86.8
[10 -8 -17]	(4 5 0)	(6 -1 4)	2.831	1.211	2.34	79.2	69.0
[10 -8 -13]	(4 5 0)	(6 1 4)	2.831	1.211	2.34	72.9	73.6
[20 -16 29]	(4 5 0)	(-1 6 4)	2.831	1.205	2.35	73.8	71.9
[20 -16 19]	(4 5 0)	(1 6 4)	2.831	1.205	2.35	69.0	77.9
[20 -16 41]	(4 5 0)	(-5 4 4)	2.831	1.198	2.36	89.2	65.2
[20 -16 -9]	(4 5 0)	(5 4 4)	2.831	1.198	2.36	65.8	84.2
[5 -4 10]	(4 5 0)	(-4 5 4)	2.831	1.196	2.37	83.9	65.7
[5 -4 0]	(4 5 0)	(4 5 4)	2.831	1.196	2.37	65.0	90.0
[10 -8 -21]	(4 5 0)	(6 -3 4)	2.831	1.189	2.38	85.5	64.6
[10 -8 -9]	(4 5 0)	(6 3 4)	2.831	1.189	2.38	66.8	78.5
[15 -12 -8]	(4 5 0)	(8 8 3)	2.831	1.187	2.38	42.8	83.1
[15 -12 17]	(4 5 0)	(9 7 -3)	2.831	1.185	2.39	44.0	75.7
[20 -16 -39]	(4 5 0)	(3 -6 4)	2.831	1.185	2.39	78.7	66.2
[20 -16 9]	(4 5 0)	(3 6 4)	2.831	1.185	2.39	64.4	84.2
[20 -16 -35]	(4 5 0)	(7 0 4)	2.831	1.181	2.40	74.1	68.4
[15 -12 -1]	(4 5 0)	(7 9 -3)	2.831	1.179	2.40	42.1	89.1
[20 -16 39]	(4 5 0)	(-7 1 4)	2.831	1.178	2.40	77.2	66.2
[20 -16 31]	(4 5 0)	(7 1 -4)	2.831	1.178	2.40	71.0	70.7
[20 -16 -45]	(4 5 0)	(5 -5 4)	2.831	1.174	2.41	86.3	63.1
[20 -16 -5]	(4 5 0)	(5 5 4)	2.831	1.174	2.41	63.0	86.8
[20 -16 -43]	(4 5 0)	(7 -2 4)	2.831	1.171	2.42	80.3	64.1
[20 -16 -27]	(4 5 0)	(7 2 4)	2.831	1.171	2.42	68.0	73.1
[20 -16 33]	(4 5 0)	(-1 7 4)	2.831	1.171	2.42	71.1	69.6
[20 -16 23]	(4 5 0)	(1 7 4)	2.831	1.171	2.42	66.4	75.5
[20 -16 -47]	(4 5 0)	(7 -3 4)	2.831	1.158	2.44	83.4	62.1
[20 -16 -23]	(4 5 0)	(7 3 4)	2.831	1.158	2.44	65.0	75.5
[20 -16 43]	(4 5 0)	(-3 7 4)	2.831	1.152	2.46	76.0	64.1
[20 -16 -13]	(4 5 0)	(3 7 -4)	2.831	1.152	2.46	61.9	81.7
[10 -8 25]	(4 5 0)	(-6 5 4)	2.831	1.149	2.46	88.5	60.6
[10 -8 -5]	(4 5 0)	(6 5 4)	2.831	1.149	2.46	61.2	83.6
[15 -12 -13]	(4 5 0)	(9 8 3)	2.831	1.148	2.47	41.6	78.9
[20 -16 49]	(4 5 0)	(-5 6 4)	2.831	1.148	2.47	83.4	61.1
[20 -16 -1]	(4 5 0)	(5 6 4)	2.831	1.148	2.47	60.4	89.4
[15 -12 4]	(4 5 0)	(8 9 -3)	2.831	1.145	2.47	40.7	86.6
[5 -4 -11]	(4 5 0)	(8 -1 4)	2.831	1.144	2.47	75.4	63.6
[5 -4 -9]	(4 5 0)	(8 1 4)	2.831	1.144	2.47	69.3	67.9
[20 -16 -51]	(4 5 0)	(7 -4 4)	2.831	1.142	2.48	86.4	60.1
[20 -16 -19]	(4 5 0)	(7 4 4)	2.831	1.142	2.48	62.2	77.9

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[5	-4	12]	(4	5	0)	(-4	7	4)	2.831	1.137	2.49	78.4	61.6
[5	-4	2]	(4	5	0)	(4	7	4)	2.831	1.137	2.49	59.9	84.8
[20	-16	-37]	(4	5	0)	(1	-8	4)	2.831	1.135	2.49	68.7	67.3
[20	-16	27]	(4	5	0)	(1	8	4)	2.831	1.135	2.49	64.0	73.1
[5	-4	-13]	(4	5	0)	(8	-3	4)	2.831	1.126	2.51	81.4	59.6
[5	-4	-7]	(4	5	0)	(8	3	4)	2.831	1.126	2.51	63.4	72.5
[20	-16	-15]	(4	5	0)	(7	5	4)	2.831	1.121	2.52	59.5	80.4
[20	-16	53]	(4	5	0)	(-5	7	4)	2.831	1.118	2.53	80.7	59.1
[20	-16	3]	(4	5	0)	(5	7	4)	2.831	1.118	2.53	57.9	88.1
[20	-16	47]	(4	5	0)	(-3	8	4)	2.831	1.118	2.53	73.5	62.1
[20	-16	17]	(4	5	0)	(3	8	4)	2.831	1.118	2.53	59.6	79.1
[20	-16	-45]	(4	5	0)	(9	0	4)	2.831	1.111	2.55	70.7	63.1
[20	-16	-41]	(4	5	0)	(9	1	4)	2.831	1.109	2.55	67.7	65.2
[20	-16	-53]	(4	5	0)	(9	-2	4)	2.831	1.102	2.57	76.7	59.1
[20	-16	37]	(4	5	0)	(9	2	-4)	2.831	1.102	2.57	64.8	67.3
[20	-16	-59]	(4	5	0)	(7	-6	4)	2.831	1.098	2.58	87.9	56.3
[20	-16	-11]	(4	5	0)	(7	6	4)	2.831	1.098	2.58	57.0	82.9
[20	-16	41]	(4	5	0)	(-1	9	4)	2.831	1.098	2.58	66.4	65.2
[20	-16	31]	(4	5	0)	(1	9	4)	2.831	1.098	2.58	61.8	70.7
[10	-8	29]	(4	5	0)	(-6	7	4)	2.831	1.096	2.58	83.0	56.8
[10	-8	1]	(4	5	0)	(6	7	-4)	2.831	1.096	2.58	56.2	88.7
[10	-8	-23]	(4	5	0)	(-2	9	-4)	2.831	1.092	2.59	68.8	62.6
[10	-8	13]	(4	5	0)	(2	9	4)	2.831	1.092	2.59	59.6	73.6
[20	-16	-57]	(4	5	0)	(9	-3	4)	2.831	1.092	2.59	79.6	57.2
[20	-16	-33]	(4	5	0)	(9	3	4)	2.831	1.092	2.59	62.0	69.6
[5	-4	-15]	(4	5	0)	(8	-5	4)	2.831	1.092	2.59	87.3	55.9
[5	-4	-5]	(4	5	0)	(8	5	4)	2.831	1.092	2.59	58.0	77.3
[20	-16	57]	(4	5	0)	(-5	8	4)	2.831	1.087	2.60	78.2	57.3
[20	-16	7]	(4	5	0)	(5	8	4)	2.831	1.087	2.60	55.7	85.5
[20	-16	51]	(4	5	0)	(-3	9	4)	2.831	1.083	2.61	71.2	60.1
[20	-16	21]	(4	5	0)	(3	9	4)	2.831	1.083	2.61	57.5	76.7
[20	-16	-61]	(4	5	0)	(9	-4	4)	2.831	1.078	2.63	82.5	55.5
[20	-16	-29]	(4	5	0)	(9	4	4)	2.831	1.078	2.63	59.2	71.9
[20	-16	63]	(4	5	0)	(-7	7	4)	2.831	1.072	2.64	85.2	54.6
[20	-16	-7]	(4	5	0)	(7	7	4)	2.831	1.072	2.64	54.6	85.5
[5	-4	14]	(4	5	0)	(-4	9	4)	2.831	1.070	2.65	73.5	57.7
[5	-4	4]	(4	5	0)	(4	9	4)	2.831	1.070	2.65	55.5	79.8
[20	-16	-65]	(4	5	0)	(9	-5	4)	2.831	1.061	2.67	85.3	53.7
[20	-16	-25]	(4	5	0)	(9	5	4)	2.831	1.061	2.67	56.6	74.2
[5	-4	-1]	(4	5	0)	(1	0	5)	2.831	1.054	2.69	88.0	87.4
[20	-16	61]	(4	5	0)	(-5	9	4)	2.831	1.054	2.69	75.8	55.5
[20	-16	11]	(4	5	0)	(5	9	4)	2.831	1.054	2.69	53.6	82.9
[25	-20	4]	(4	5	0)	(0	1	5)	2.831	1.054	2.69	87.3	87.9
[25	-20	9]	(4	5	0)	(-1	1	5)	2.831	1.052	2.69	89.3	85.4
[25	-20	-1]	(4	5	0)	(1	1	5)	2.831	1.052	2.69	85.3	89.5
[5	-4	-2]	(4	5	0)	(2	0	5)	2.831	1.049	2.70	86.0	84.8
[25	-20	-14]	(4	5	0)	(2	-1	5)	2.831	1.047	2.70	88.7	82.8
[25	-20	-6]	(4	5	0)	(2	1	5)	2.831	1.047	2.70	83.4	86.9

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Anthophyllite (450) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[25	-20	13]	(4	5	0)	(-1	2	5)	2.831	1.047	2.70	86.7	83.3
[25	-20	3]	(4	5	0)	(1	2	5)	2.831	1.047	2.70	82.7	88.4
[5	-4	17]	(4	5	0)	(-8	7	4)	2.831	1.046	2.71	87.3	52.5
[5	-4	-3]	(4	5	0)	(8	7	4)	2.831	1.046	2.71	53.1	82.3
[20	-16	67]	(4	5	0)	(-7	8	4)	2.831	1.044	2.71	82.7	52.9
[20	-16	3]	(4	5	0)	(7	8	-4)	2.831	1.044	2.71	52.3	88.1
[25	-20	-18]	(4	5	0)	(2	-2	5)	2.831	1.042	2.72	88.7	80.8
[25	-20	-2]	(4	5	0)	(2	2	5)	2.831	1.042	2.72	80.7	89.0
[20	-16	-69]	(4	5	0)	(9	-6	4)	2.831	1.041	2.72	88.0	52.1
[20	-16	-21]	(4	5	0)	(9	6	4)	2.831	1.041	2.72	54.1	76.7
[5	-4	-3]	(4	5	0)	(3	0	5)	2.831	1.041	2.72	84.1	82.3
[25	-20	12]	(4	5	0)	(0	3	5)	2.831	1.040	2.72	82.1	83.8
[25	-20	-19]	(4	5	0)	(3	-1	5)	2.831	1.039	2.72	86.7	80.3
[25	-20	-11]	(4	5	0)	(3	1	5)	2.831	1.039	2.72	81.4	84.3
[25	-20	17]	(4	5	0)	(-1	3	5)	2.831	1.038	2.73	84.1	81.3
[25	-20	7]	(4	5	0)	(1	3	5)	2.831	1.038	2.73	80.1	86.4
[10	-8	33]	(4	5	0)	(-6	9	4)	2.831	1.036	2.73	78.1	53.3
[10	-8	3]	(4	5	0)	(6	9	4)	2.831	1.036	2.73	51.9	86.1
[25	-20	-23]	(4	5	0)	(3	-2	5)	2.831	1.034	2.74	89.4	78.3
[25	-20	-7]	(4	5	0)	(3	2	5)	2.831	1.034	2.74	78.8	86.4
[25	-20	22]	(4	5	0)	(-2	3	5)	2.831	1.033	2.74	86.1	78.8
[25	-20	2]	(4	5	0)	(2	3	5)	2.831	1.033	2.74	78.2	89.0
[5	-4	-4]	(4	5	0)	(4	0	5)	2.831	1.030	2.75	82.2	79.8
[25	-20	-24]	(4	5	0)	(4	-1	5)	2.831	1.028	2.75	84.8	77.8
[25	-20	-16]	(4	5	0)	(4	1	5)	2.831	1.028	2.75	79.5	81.8
[25	-20	21]	(4	5	0)	(-1	4	5)	2.831	1.026	2.76	81.5	79.3
[25	-20	11]	(4	5	0)	(1	4	5)	2.831	1.026	2.76	77.6	84.3
[25	-20	27]	(4	5	0)	(-3	3	5)	2.831	1.025	2.76	88.0	76.3
[25	-20	-3]	(4	5	0)	(3	3	5)	2.831	1.025	2.76	76.3	88.4
[25	-20	-28]	(4	5	0)	(4	-2	5)	2.831	1.023	2.77	87.4	75.8
[25	-20	-12]	(4	5	0)	(4	2	5)	2.831	1.023	2.77	77.0	83.8
[25	-20	26]	(4	5	0)	(-2	4	5)	2.831	1.021	2.77	83.5	76.8
[25	-20	6]	(4	5	0)	(2	4	5)	2.831	1.021	2.77	75.6	86.9
[20	-16	17]	(4	5	0)	(9	7	-4)	2.831	1.019	2.78	51.8	79.1
[20	-16	-71]	(4	5	0)	(7	-9	4)	2.831	1.015	2.79	80.3	51.3
[20	-16	-1]	(4	5	0)	(7	9	-4)	2.831	1.015	2.79	50.3	89.4
[25	-20	32]	(4	5	0)	(-4	3	5)	2.831	1.015	2.79	90.0	73.9
[25	-20	-8]	(4	5	0)	(4	3	5)	2.831	1.015	2.79	74.4	85.9
[25	-20	-29]	(4	5	0)	(5	-1	5)	2.831	1.014	2.79	82.9	75.3
[25	-20	-21]	(4	5	0)	(5	1	5)	2.831	1.014	2.79	77.7	79.3
[25	-20	31]	(4	5	0)	(-3	4	5)	2.831	1.014	2.79	85.5	74.4
[25	-20	1]	(4	5	0)	(3	4	5)	2.831	1.014	2.79	73.8	89.5
[5	-4	5]	(4	5	0)	(-1	5	5)	2.831	1.011	2.80	79.1	77.3
[5	-4	3]	(4	5	0)	(1	5	5)	2.831	1.011	2.80	75.1	82.3
[25	-20	-33]	(4	5	0)	(5	-2	5)	2.831	1.009	2.81	85.5	73.4
[25	-20	-17]	(4	5	0)	(5	2	5)	2.831	1.009	2.81	75.2	81.3
[5	-4	6]	(4	5	0)	(-2	5	5)	2.831	1.007	2.81	81.0	74.8
[5	-4	2]	(4	5	0)	(2	5	5)	2.831	1.007	2.81	73.2	84.8

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Anthophyllite (450) 484 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[25	-20	36]	(4	5	0)	(-4	4	5)	2.831	1.003	2.82	87.4	72.0
[25	-20	4]	(4	5	0)	(4	4	-5)	2.831	1.003	2.82	71.9	87.9
[25	-20	37]	(4	5	0)	(-5	3	5)	2.831	1.001	2.83	88.1	71.5
[25	-20	-13]	(4	5	0)	(5	3	5)	2.831	1.001	2.83	72.6	83.3

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Anthophyllite (640) 485 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[2	-3	-2]	(6	4	0)	(1	0	1)	2.539	5.077	0.50	76.9	80.8
[2	-3	3]	(6	4	0)	(0	1	1)	2.539	5.064	0.50	80.8	76.3
[2	-3	-5]	(6	4	0)	(1	-1	1)	2.539	4.885	0.52	86.4	68.0
[2	-3	1]	(6	4	0)	(1	1	1)	2.539	4.885	0.52	68.1	85.4
[2	-3	-7]	(6	4	0)	(2	-1	1)	2.539	4.442	0.57	75.2	60.5
[2	-3	1]	(6	4	0)	(2	1	-1)	2.539	4.442	0.57	57.6	85.4
[2	-3	-8]	(6	4	0)	(1	-2	1)	2.539	4.416	0.57	85.2	57.1
[2	-3	4]	(6	4	0)	(1	2	1)	2.539	4.416	0.57	61.5	72.1
[2	-3	-10]	(6	4	0)	(2	-2	1)	2.539	4.081	0.62	84.0	51.0
[2	-3	2]	(6	4	0)	(2	2	1)	2.539	4.081	0.62	51.5	80.8
[2	-3	-6]	(6	4	0)	(3	0	1)	2.539	4.011	0.63	57.6	64.1
[2	-3	9]	(6	4	0)	(0	3	1)	2.539	3.954	0.64	67.9	53.9
[2	-3	9]	(6	4	0)	(3	-1	-1)	2.539	3.914	0.65	66.5	53.9
[2	-3	3]	(6	4	0)	(-3	-1	1)	2.539	3.914	0.65	49.7	76.3
[2	-3	11]	(6	4	0)	(-1	3	1)	2.539	3.867	0.66	78.7	48.3
[2	-3	7]	(6	4	0)	(1	3	1)	2.539	3.867	0.66	57.3	60.5
[2	-3	-12]	(6	4	0)	(3	-2	1)	2.539	3.660	0.69	75.1	45.8
[2	-3	0]	(6	4	0)	(3	2	-1)	2.539	3.660	0.69	43.9	90.0
[2	-3	-5]	(6	4	0)	(2	3	-1)	2.539	3.636	0.70	48.0	68.0
[2	-3	-8]	(6	4	0)	(4	0	1)	2.539	3.479	0.73	51.7	57.1
[2	-3	-11]	(6	4	0)	(4	-1	1)	2.539	3.415	0.74	60.0	48.3
[2	-3	-5]	(6	4	0)	(4	1	1)	2.539	3.415	0.74	44.3	68.0
[2	-3	10]	(6	4	0)	(1	4	1)	2.539	3.357	0.76	54.9	51.0
[2	-3	-3]	(6	4	0)	(3	3	-1)	2.539	3.329	0.76	40.4	76.3
[2	-3	2]	(6	4	0)	(-4	-2	1)	2.539	3.243	0.78	38.5	80.8
[2	-3	8]	(6	4	0)	(2	4	1)	2.539	3.203	0.79	46.3	57.1
[2	-3	-10]	(6	4	0)	(5	0	1)	2.539	3.030	0.84	47.6	51.0
[2	-3	-1]	(6	4	0)	(4	3	-1)	2.539	3.005	0.84	34.8	85.4
[2	-3	7]	(6	4	0)	(-5	-1	1)	2.539	2.988	0.85	40.6	60.5
[2	-3	6]	(6	4	0)	(3	4	1)	2.539	2.987	0.85	39.0	64.1
[2	-3	-4]	(6	4	0)	(5	2	1)	2.539	2.870	0.88	34.8	72.1
[2	-3	11]	(6	4	0)	(2	5	1)	2.539	2.822	0.90	45.7	48.3
[2	-3	4]	(6	4	0)	(4	4	1)	2.539	2.747	0.92	33.1	72.1
[2	-3	-1]	(6	4	0)	(5	3	1)	2.539	2.702	0.94	30.9	85.4
[2	-3	9]	(6	4	0)	(3	5	1)	2.539	2.671	0.95	38.7	53.9
[2	-3	-12]	(6	4	0)	(6	0	1)	2.539	2.663	0.95	44.7	45.8
[2	-3	0]	(6	4	0)	(0	0	2)	2.539	2.640	0.96	90.0	90.0
[2	-3	9]	(6	4	0)	(6	1	-1)	2.539	2.634	0.96	38.1	53.9
[2	-3	-1]	(6	4	0)	(1	0	2)	2.539	2.614	0.97	83.3	85.4
[4	-6	-5]	(6	4	0)	(1	-1	2)	2.539	2.586	0.98	88.1	78.6
[4	-6	1]	(6	4	0)	(1	1	2)	2.539	2.586	0.98	78.6	87.7
[2	-3	-6]	(6	4	0)	(6	2	1)	2.539	2.552	0.99	32.5	64.1
[4	-6	-7]	(6	4	0)	(2	-1	2)	2.539	2.513	1.01	81.7	74.2
[4	-6	-1]	(6	4	0)	(2	1	2)	2.539	2.513	1.01	72.3	87.7
[2	-3	2]	(6	4	0)	(5	4	1)	2.539	2.509	1.01	28.8	80.8
[2	-3	4]	(6	4	0)	(-1	2	2)	2.539	2.509	1.01	87.3	72.1
[2	-3	7]	(6	4	0)	(4	5	1)	2.539	2.495	1.02	32.9	60.5
[2	-3	-3]	(6	4	0)	(6	3	1)	2.539	2.431	1.04	28.3	76.3

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[2	-3	-3]	(6	4	0)	(3	0	2)	2.539	2.427	1.05	71.1	76.3
[4	-6	-9]	(6	4	0)	(3	-1	2)	2.539	2.405	1.06	75.8	70.0
[4	-6	-3]	(6	4	0)	(3	1	2)	2.539	2.405	1.06	66.6	83.1
[4	-6	11]	(6	4	0)	(-1	3	2)	2.539	2.394	1.06	83.0	66.0
[4	-6	7]	(6	4	0)	(1	3	2)	2.539	2.394	1.06	70.5	74.2
[2	-3	12]	(6	4	0)	(3	6	1)	2.539	2.394	1.06	39.2	45.8
[2	-3	-11]	(6	4	0)	(7	1	1)	2.539	2.343	1.08	36.5	48.3
[2	-3	-6]	(6	4	0)	(3	-2	2)	2.539	2.342	1.08	80.5	64.1
[2	-3	0]	(6	4	0)	(3	2	-2)	2.539	2.342	1.08	62.5	90.0
[4	-6	13]	(6	4	0)	(-2	3	2)	2.539	2.336	1.09	89.2	62.2
[4	-6	5]	(6	4	0)	(2	3	2)	2.539	2.336	1.09	64.5	78.6
[2	-3	-5]	(6	4	0)	(5	5	-1)	2.539	2.313	1.10	28.2	68.0
[2	-3	0]	(6	4	0)	(6	4	1)	2.539	2.288	1.11	25.7	90.0
[2	-3	-8]	(6	4	0)	(7	2	1)	2.539	2.285	1.11	31.0	57.1
[4	-6	-11]	(6	4	0)	(4	-1	2)	2.539	2.274	1.12	70.6	66.0
[4	-6	-5]	(6	4	0)	(4	1	2)	2.539	2.274	1.12	61.5	78.6
[2	-3	6]	(6	4	0)	(0	4	2)	2.539	2.274	1.12	73.2	64.1
[2	-3	-10]	(6	4	0)	(4	6	-1)	2.539	2.265	1.12	33.5	51.0
[2	-3	-7]	(6	4	0)	(1	-4	2)	2.539	2.257	1.13	79.3	60.5
[2	-3	5]	(6	4	0)	(1	4	2)	2.539	2.257	1.13	67.3	68.0
[4	-6	-15]	(6	4	0)	(3	-3	2)	2.539	2.248	1.13	85.0	58.7
[4	-6	-3]	(6	4	0)	(3	3	-2)	2.539	2.248	1.13	59.1	83.1
[2	-3	-5]	(6	4	0)	(7	3	1)	2.539	2.197	1.16	26.7	68.0
[2	-3	-5]	(6	4	0)	(5	0	2)	2.539	2.149	1.18	61.4	68.0
[4	-6	-17]	(6	4	0)	(4	-3	2)	2.539	2.140	1.19	79.8	55.5
[4	-6	-1]	(6	4	0)	(4	3	-2)	2.539	2.140	1.19	54.2	87.7
[2	-3	-3]	(6	4	0)	(-6	-5	1)	2.539	2.136	1.19	24.6	76.3
[4	-6	-13]	(6	4	0)	(5	-1	2)	2.539	2.134	1.19	66.0	62.2
[4	-6	-7]	(6	4	0)	(5	1	2)	2.539	2.134	1.19	57.1	74.2
[2	-3	-9]	(6	4	0)	(3	-4	2)	2.539	2.133	1.19	89.2	53.9
[2	-3	3]	(6	4	0)	(3	4	2)	2.539	2.133	1.19	56.3	76.3
[2	-3	8]	(6	4	0)	(5	6	1)	2.539	2.126	1.19	28.7	57.1
[4	-6	17]	(6	4	0)	(-1	5	2)	2.539	2.111	1.20	76.1	55.5
[4	-6	13]	(6	4	0)	(1	5	2)	2.539	2.111	1.20	64.6	62.2
[2	-3	-2]	(6	4	0)	(7	4	1)	2.539	2.090	1.21	23.6	80.8
[2	-3	-8]	(6	4	0)	(5	-2	2)	2.539	2.090	1.22	70.6	57.1
[4	-6	-19]	(6	4	0)	(2	-5	2)	2.539	2.071	1.23	81.7	52.4
[4	-6	11]	(6	4	0)	(2	5	2)	2.539	2.071	1.23	59.2	66.0
[2	-3	-10]	(6	4	0)	(8	2	1)	2.539	2.061	1.23	30.2	51.0
[4	-6	-19]	(6	4	0)	(5	-3	2)	2.539	2.022	1.26	75.1	52.4
[4	-6	-1]	(6	4	0)	(5	3	2)	2.539	2.022	1.26	50.0	87.7
[4	-6	21]	(6	4	0)	(-3	5	2)	2.539	2.009	1.26	87.1	49.6
[4	-6	9]	(6	4	0)	(3	5	2)	2.539	2.009	1.26	54.1	70.0
[2	-3	-7]	(6	4	0)	(8	3	1)	2.539	1.996	1.27	25.8	60.5
[4	-6	-15]	(6	4	0)	(6	-1	2)	2.539	1.993	1.27	62.0	58.7
[4	-6	-9]	(6	4	0)	(6	1	2)	2.539	1.993	1.27	53.5	70.0
[2	-3	-6]	(6	4	0)	(6	6	-1)	2.539	1.986	1.28	24.7	64.1
[2	-3	-1]	(6	4	0)	(7	5	-1)	2.539	1.972	1.29	22.0	85.4

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[2	-3	-10]	(6	4	0)	(1	-6	2)	2.539	1.966	1.29	73.4	51.0
[2	-3	8]	(6	4	0)	(1	6	2)	2.539	1.966	1.29	62.5	57.1
[2	-3	11]	(6	4	0)	(5	7	1)	2.539	1.954	1.30	29.7	48.3
[2	-3	-11]	(6	4	0)	(5	-4	2)	2.539	1.937	1.31	79.3	48.3
[2	-3	1]	(6	4	0)	(5	4	2)	2.539	1.937	1.31	47.4	85.4
[4	-6	-23]	(6	4	0)	(4	-5	2)	2.539	1.931	1.32	87.8	47.0
[4	-6	7]	(6	4	0)	(4	5	2)	2.539	1.931	1.32	49.5	74.2
[2	-3	4]	(6	4	0)	(8	4	-1)	2.539	1.915	1.33	22.4	72.1
[4	-6	21]	(6	4	0)	(-6	3	2)	2.539	1.901	1.34	70.9	49.6
[4	-6	-3]	(6	4	0)	(6	3	2)	2.539	1.901	1.34	46.5	83.1
[2	-3	12]	(6	4	0)	(-3	6	2)	2.539	1.883	1.35	83.9	45.8
[2	-3	6]	(6	4	0)	(3	6	2)	2.539	1.883	1.35	52.5	64.1
[2	-3	-12]	(6	4	0)	(9	2	1)	2.539	1.873	1.36	29.6	45.8
[2	-3	-7]	(6	4	0)	(7	0	2)	2.539	1.868	1.36	54.4	60.5
[4	-6	-17]	(6	4	0)	(7	-1	2)	2.539	1.858	1.37	58.7	55.5
[4	-6	-11]	(6	4	0)	(7	1	2)	2.539	1.858	1.37	50.4	66.0
[2	-3	4]	(6	4	0)	(7	6	1)	2.539	1.852	1.37	21.6	72.1
[2	-3	-9]	(6	4	0)	(6	7	-1)	2.539	1.844	1.38	25.6	53.9
[4	-6	-5]	(6	4	0)	(5	5	-2)	2.539	1.843	1.38	45.4	78.6
[2	-3	10]	(6	4	0)	(-7	2	2)	2.539	1.828	1.39	63.0	51.0
[2	-3	-4]	(6	4	0)	(7	2	2)	2.539	1.828	1.39	46.7	72.1
[4	-6	23]	(6	4	0)	(-1	7	2)	2.539	1.828	1.39	71.1	47.0
[4	-6	19]	(6	4	0)	(1	7	2)	2.539	1.828	1.39	60.9	52.4
[2	-3	-9]	(6	4	0)	(9	3	1)	2.539	1.824	1.39	25.3	53.9
[2	-3	-1]	(6	4	0)	(8	5	1)	2.539	1.823	1.39	20.3	85.4
[4	-6	17]	(6	4	0)	(2	7	2)	2.539	1.802	1.41	55.9	55.5
[4	-6	-23]	(6	4	0)	(7	-3	2)	2.539	1.782	1.42	67.3	47.0
[4	-6	-5]	(6	4	0)	(7	3	2)	2.539	1.782	1.42	43.5	78.6
[2	-3	6]	(6	4	0)	(9	4	-1)	2.539	1.761	1.44	21.8	64.1
[4	-6	-15]	(6	4	0)	(-3	-7	2)	2.539	1.760	1.44	51.3	58.7
[6	-9	-2]	(6	4	0)	(1	0	3)	2.539	1.752	1.45	85.5	86.9
[2	-3	1]	(6	4	0)	(0	1	3)	2.539	1.752	1.45	86.8	85.4
[4	-6	3]	(6	4	0)	(6	5	2)	2.539	1.750	1.45	41.9	83.1
[6	-9	-5]	(6	4	0)	(1	-1	3)	2.539	1.744	1.46	88.7	82.3
[6	-9	1]	(6	4	0)	(1	1	3)	2.539	1.744	1.46	82.4	88.5
[2	-3	4]	(6	4	0)	(5	6	2)	2.539	1.744	1.46	44.0	72.1
[2	-3	7]	(6	4	0)	(7	7	1)	2.539	1.736	1.46	22.2	60.5
[4	-6	-19]	(6	4	0)	(8	-1	2)	2.539	1.731	1.47	55.8	52.4
[4	-6	-13]	(6	4	0)	(8	1	2)	2.539	1.731	1.47	47.8	62.2
[6	-9	-4]	(6	4	0)	(2	0	3)	2.539	1.729	1.47	81.1	83.8
[2	-3	-2]	(6	4	0)	(8	6	-1)	2.539	1.727	1.47	19.4	80.8
[2	-3	1]	(6	4	0)	(-7	-4	2)	2.539	1.724	1.47	40.9	85.4
[6	-9	-7]	(6	4	0)	(2	-1	3)	2.539	1.721	1.48	84.3	79.3
[6	-9	-1]	(6	4	0)	(2	1	3)	2.539	1.721	1.48	78.0	88.5
[6	-9	8]	(6	4	0)	(-1	2	3)	2.539	1.719	1.48	88.1	77.8
[6	-9	4]	(6	4	0)	(1	2	3)	2.539	1.719	1.48	79.3	83.8
[2	-3	12]	(6	4	0)	(6	8	1)	2.539	1.713	1.48	26.9	45.8
[2	-3	-12]	(6	4	0)	(0	8	-2)	2.539	1.707	1.49	64.4	45.8

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[2	-3	11]	(6	4	0)	(1	8	2)	2.539	1.700	1.49	59.6	48.3
[6	-9	-10]	(6	4	0)	(2	-2	3)	2.539	1.698	1.50	87.5	74.9
[6	-9	2]	(6	4	0)	(2	2	3)	2.539	1.698	1.50	75.0	86.9
[2	-3	-3]	(6	4	0)	(9	5	1)	2.539	1.689	1.50	19.2	76.3
[2	-3	-1]	(6	4	0)	(3	1	3)	2.539	1.685	1.51	73.8	85.4
[6	-9	11]	(6	4	0)	(-1	3	3)	2.539	1.681	1.51	85.1	73.5
[6	-9	7]	(6	4	0)	(1	3	3)	2.539	1.681	1.51	76.4	79.3
[4	-6	-7]	(6	4	0)	(8	3	2)	2.539	1.670	1.52	41.1	74.2
[6	-9	13]	(6	4	0)	(-2	3	3)	2.539	1.661	1.53	89.4	70.7
[6	-9	-5]	(6	4	0)	(2	3	-3)	2.539	1.661	1.53	72.2	82.3
[4	-6	-1]	(6	4	0)	(-7	-5	2)	2.539	1.656	1.53	38.9	87.7
[4	-6	11]	(6	4	0)	(5	7	2)	2.539	1.645	1.54	43.0	66.0
[2	-3	-9]	(6	4	0)	(3	8	-2)	2.539	1.645	1.54	50.4	53.9
[6	-9	8]	(6	4	0)	(-4	0	3)	2.539	1.645	1.54	73.0	77.8
[6	-9	-11]	(6	4	0)	(4	-1	3)	2.539	1.638	1.55	76.1	73.5
[6	-9	-5]	(6	4	0)	(4	1	3)	2.539	1.638	1.55	69.9	82.3
[6	-9	14]	(6	4	0)	(-1	4	3)	2.539	1.631	1.56	82.3	69.3
[6	-9	10]	(6	4	0)	(1	4	3)	2.539	1.631	1.56	73.8	74.9
[2	-3	-5]	(6	4	0)	(8	7	-1)	2.539	1.631	1.56	19.5	68.0
[2	-3	-9]	(6	4	0)	(9	0	2)	2.539	1.622	1.57	49.5	53.9
[6	-9	14]	(6	4	0)	(-4	2	3)	2.539	1.618	1.57	79.3	69.3
[6	-9	-2]	(6	4	0)	(4	2	3)	2.539	1.618	1.57	67.0	86.9
[4	-6	-21]	(6	4	0)	(9	-1	2)	2.539	1.615	1.57	53.4	49.6
[4	-6	-15]	(6	4	0)	(9	1	2)	2.539	1.615	1.57	45.7	58.7
[6	-9	16]	(6	4	0)	(-2	4	3)	2.539	1.613	1.57	86.5	66.6
[6	-9	8]	(6	4	0)	(2	4	3)	2.539	1.613	1.57	69.6	77.8
[2	-3	0]	(6	4	0)	(9	6	-1)	2.539	1.612	1.58	17.8	90.0
[2	-3	12]	(6	4	0)	(9	-2	-2)	2.539	1.596	1.59	57.4	45.8
[2	-3	-6]	(6	4	0)	(9	2	2)	2.539	1.596	1.59	42.2	64.1
[6	-9	-10]	(6	4	0)	(5	0	3)	2.539	1.589	1.60	69.3	74.9
[6	-9	-17]	(6	4	0)	(4	-3	3)	2.539	1.586	1.60	82.4	65.4
[6	-9	-1]	(6	4	0)	(4	3	-3)	2.539	1.586	1.60	64.3	88.5
[6	-9	13]	(6	4	0)	(5	-1	-3)	2.539	1.583	1.60	72.4	70.7
[6	-9	-7]	(6	4	0)	(5	1	3)	2.539	1.583	1.60	66.3	79.3
[2	-3	2]	(6	4	0)	(7	6	2)	2.539	1.583	1.60	37.4	80.8
[2	-3	-6]	(6	4	0)	(3	-4	3)	2.539	1.583	1.60	89.4	64.1
[2	-3	5]	(6	4	0)	(0	5	3)	2.539	1.579	1.61	75.5	68.0
[4	-6	-9]	(6	4	0)	(6	7	-2)	2.539	1.578	1.61	39.5	70.0
[6	-9	-17]	(6	4	0)	(1	-5	3)	2.539	1.574	1.61	79.7	65.4
[6	-9	13]	(6	4	0)	(1	5	3)	2.539	1.574	1.61	71.4	70.7
[4	-6	-23]	(6	4	0)	(2	9	-2)	2.539	1.566	1.62	54.1	47.0
[4	-6	9]	(6	4	0)	(-9	-3	2)	2.539	1.565	1.62	39.1	70.0
[6	-9	-16]	(6	4	0)	(5	-2	3)	2.539	1.565	1.62	75.6	66.6
[6	-9	4]	(6	4	0)	(5	2	-3)	2.539	1.565	1.62	63.4	83.8
[4	-6	-1]	(6	4	0)	(8	5	2)	2.539	1.565	1.62	36.4	87.7
[6	-9	19]	(6	4	0)	(-2	5	3)	2.539	1.557	1.63	83.8	62.9
[6	-9	11]	(6	4	0)	(2	5	3)	2.539	1.557	1.63	67.3	73.5
[2	-3	-7]	(6	4	0)	(5	8	-2)	2.539	1.550	1.64	42.4	60.5

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Anthophyllite (640) 485 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[6	-9	20]	(6	4	0)	(-4	4	3)	2.539	1.544	1.64	85.5	61.6
[6	-9	4]	(6	4	0)	(4	4	3)	2.539	1.544	1.64	61.9	83.8
[4	-6	21]	(6	4	0)	(3	9	2)	2.539	1.538	1.65	49.9	49.6
[2	-3	8]	(6	4	0)	(8	8	1)	2.539	1.538	1.65	20.3	57.1
[6	-9	-19]	(6	4	0)	(5	-3	3)	2.539	1.536	1.65	78.7	62.9
[6	-9	-1]	(6	4	0)	(5	3	3)	2.539	1.536	1.65	60.8	88.5
[2	-3	-3]	(6	4	0)	(9	7	-1)	2.539	1.533	1.66	17.4	76.3
[2	-3	7]	(6	4	0)	(-3	5	3)	2.539	1.530	1.66	87.8	60.5
[2	-3	3]	(6	4	0)	(3	5	3)	2.539	1.530	1.66	63.5	76.3
[2	-3	3]	(6	4	0)	(9	4	-2)	2.539	1.525	1.67	36.5	76.3
[2	-3	5]	(6	4	0)	(6	-1	-3)	2.539	1.523	1.67	69.0	68.0
[2	-3	-3]	(6	4	0)	(6	1	3)	2.539	1.523	1.67	62.9	76.3
[6	-9	20]	(6	4	0)	(-1	6	3)	2.539	1.511	1.68	77.3	61.6
[6	-9	16]	(6	4	0)	(1	6	3)	2.539	1.511	1.68	69.2	66.6
[4	-6	7]	(6	4	0)	(7	7	2)	2.539	1.508	1.68	36.4	74.2
[2	-3	-6]	(6	4	0)	(6	-2	3)	2.539	1.507	1.69	72.1	64.1
[2	-3	-2]	(6	4	0)	(6	2	3)	2.539	1.507	1.69	60.1	80.8
[6	-9	-22]	(6	4	0)	(5	-4	3)	2.539	1.498	1.70	81.8	59.3
[6	-9	2]	(6	4	0)	(5	4	3)	2.539	1.498	1.70	58.5	86.9
[6	-9	22]	(6	4	0)	(-2	6	3)	2.539	1.496	1.70	81.3	59.3
[6	-9	14]	(6	4	0)	(2	6	3)	2.539	1.496	1.70	65.3	69.3
[6	-9	-23]	(6	4	0)	(4	-5	3)	2.539	1.495	1.70	88.3	58.2
[6	-9	7]	(6	4	0)	(4	5	3)	2.539	1.495	1.70	59.8	79.3
[4	-6	-3]	(6	4	0)	(9	5	2)	2.539	1.477	1.72	34.3	83.1
[6	-9	-17]	(6	4	0)	(7	-1	3)	2.539	1.460	1.74	65.9	65.4
[6	-9	-11]	(6	4	0)	(7	1	3)	2.539	1.460	1.74	59.9	73.5
[4	-6	17]	(6	4	0)	(5	9	2)	2.539	1.460	1.74	42.2	55.5
[2	-3	-6]	(6	4	0)	(9	8	-1)	2.539	1.455	1.74	17.8	64.1
[6	-9	25]	(6	4	0)	(-5	5	3)	2.539	1.453	1.75	84.7	56.0
[6	-9	-5]	(6	4	0)	(5	5	-3)	2.539	1.453	1.75	56.4	82.3
[2	-3	-11]	(6	4	0)	(-8	-9	1)	2.539	1.450	1.75	21.6	48.3
[2	-3	7]	(6	4	0)	(0	7	3)	2.539	1.450	1.75	71.2	60.5
[2	-3	-8]	(6	4	0)	(6	-4	3)	2.539	1.446	1.76	78.3	57.1
[2	-3	0]	(6	4	0)	(6	4	-3)	2.539	1.446	1.76	55.3	90.0
[6	-9	20]	(6	4	0)	(-7	2	3)	2.539	1.446	1.76	69.0	61.6
[6	-9	-8]	(6	4	0)	(7	2	3)	2.539	1.446	1.76	57.2	77.8
[6	-9	23]	(6	4	0)	(-1	7	3)	2.539	1.445	1.76	75.1	58.2
[6	-9	19]	(6	4	0)	(1	7	3)	2.539	1.445	1.76	67.4	62.9
[6	-9	26]	(6	4	0)	(-4	6	3)	2.539	1.440	1.76	89.0	54.9
[6	-9	-10]	(6	4	0)	(4	6	-3)	2.539	1.440	1.76	58.0	74.9
[4	-6	-5]	(6	4	0)	(8	7	-2)	2.539	1.438	1.77	33.8	78.6
[2	-3	5]	(6	4	0)	(7	8	2)	2.539	1.434	1.77	35.9	68.0
[6	-9	25]	(6	4	0)	(-2	7	3)	2.539	1.432	1.77	79.0	56.0
[6	-9	17]	(6	4	0)	(2	7	3)	2.539	1.432	1.77	63.6	65.4
[2	-3	0]	(6	4	0)	(9	6	-2)	2.539	1.425	1.78	32.7	90.0
[6	-9	23]	(6	4	0)	(7	-3	-3)	2.539	1.423	1.78	72.1	58.2
[6	-9	-5]	(6	4	0)	(7	3	3)	2.539	1.423	1.78	54.7	82.3
[4	-6	-15]	(6	4	0)	(6	9	-2)	2.539	1.412	1.80	38.7	58.7

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Anthophyllite (640) 485 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[2	-3	-9]	(6	4	0)	(3	-7	3)	2.539	1.411	1.80	82.8	53.9
[2	-3	5]	(6	4	0)	(3	7	3)	2.539	1.411	1.80	59.9	68.0
[2	-3	-9]	(6	4	0)	(6	-5	3)	2.539	1.406	1.81	81.2	53.9
[2	-3	1]	(6	4	0)	(6	5	3)	2.539	1.406	1.81	53.3	85.4
[6	-9	-28]	(6	4	0)	(5	-6	3)	2.539	1.403	1.81	87.4	52.9
[6	-9	8]	(6	4	0)	(5	6	3)	2.539	1.403	1.81	54.6	77.8
[6	-9	-16]	(6	4	0)	(8	0	3)	2.539	1.401	1.81	60.1	66.6
[6	-9	-19]	(6	4	0)	(8	-1	3)	2.539	1.396	1.82	63.1	62.9
[6	-9	-13]	(6	4	0)	(8	1	3)	2.539	1.396	1.82	57.2	70.7
[6	-9	-26]	(6	4	0)	(7	-4	3)	2.539	1.392	1.82	75.1	54.9
[6	-9	-2]	(6	4	0)	(7	4	3)	2.539	1.392	1.82	52.4	86.9
[6	-9	-22]	(6	4	0)	(8	-2	3)	2.539	1.384	1.83	66.1	59.3
[6	-9	-10]	(6	4	0)	(8	2	3)	2.539	1.384	1.83	54.5	74.9
[6	-9	29]	(6	4	0)	(-4	7	3)	2.539	1.383	1.84	86.5	52.0
[6	-9	-13]	(6	4	0)	(4	7	-3)	2.539	1.383	1.84	56.4	70.7
[2	-3	9]	(6	4	0)	(9	9	1)	2.539	1.380	1.84	18.9	53.9
[6	-9	26]	(6	4	0)	(-1	8	3)	2.539	1.379	1.84	73.2	54.9
[6	-9	22]	(6	4	0)	(1	8	3)	2.539	1.379	1.84	65.7	59.3
[4	-6	-3]	(6	4	0)	(9	7	-2)	2.539	1.370	1.85	31.5	83.1
[6	-9	-28]	(6	4	0)	(2	-8	3)	2.539	1.368	1.86	77.0	52.9
[6	-9	20]	(6	4	0)	(2	8	3)	2.539	1.368	1.86	62.0	61.6
[6	-9	-25]	(6	4	0)	(8	-3	3)	2.539	1.363	1.86	69.2	56.0
[6	-9	-7]	(6	4	0)	(8	3	3)	2.539	1.363	1.86	52.0	79.3
[4	-6	13]	(6	4	0)	(7	9	2)	2.539	1.362	1.86	35.6	62.2
[6	-9	31]	(6	4	0)	(5	-7	-3)	2.539	1.350	1.88	89.9	50.1
[6	-9	11]	(6	4	0)	(5	7	3)	2.539	1.350	1.88	53.1	73.5
[2	-3	10]	(6	4	0)	(-3	8	3)	2.539	1.350	1.88	80.7	51.0
[2	-3	-6]	(6	4	0)	(3	8	-3)	2.539	1.350	1.88	58.5	64.1
[6	-9	-28]	(6	4	0)	(8	-4	3)	2.539	1.337	1.90	72.2	52.9
[6	-9	4]	(6	4	0)	(8	4	-3)	2.539	1.337	1.90	49.8	83.8
[2	-3	-7]	(6	4	0)	(9	-1	3)	2.539	1.333	1.90	60.5	60.5
[2	-3	-5]	(6	4	0)	(9	1	3)	2.539	1.333	1.90	54.8	68.0
[6	-9	32]	(6	4	0)	(-4	8	3)	2.539	1.325	1.92	84.3	49.2
[6	-9	16]	(6	4	0)	(4	8	3)	2.539	1.325	1.92	55.1	66.6
[2	-3	-8]	(6	4	0)	(9	-2	3)	2.539	1.322	1.92	63.5	57.1
[2	-3	-4]	(6	4	0)	(9	2	3)	2.539	1.322	1.92	52.2	72.1
[4	-6	-1]	(6	4	0)	(1	0	4)	2.539	1.317	1.93	86.6	87.7
[6	-9	-32]	(6	4	0)	(7	-6	3)	2.539	1.315	1.93	80.8	49.2
[6	-9	4]	(6	4	0)	(7	6	3)	2.539	1.315	1.93	48.7	83.8
[6	-9	29]	(6	4	0)	(-1	9	3)	2.539	1.315	1.93	71.5	52.0
[6	-9	25]	(6	4	0)	(1	9	3)	2.539	1.315	1.93	64.3	56.0
[2	-3	-3]	(6	4	0)	(9	8	-2)	2.539	1.313	1.93	30.8	76.3
[8	-12	5]	(6	4	0)	(-1	1	4)	2.539	1.313	1.93	89.0	84.2
[8	-12	1]	(6	4	0)	(1	1	4)	2.539	1.313	1.93	84.3	88.8
[2	-3	-11]	(6	4	0)	(6	-7	3)	2.539	1.312	1.94	86.6	48.3
[2	-3	-3]	(6	4	0)	(6	7	-3)	2.539	1.312	1.94	50.1	76.3
[4	-6	11]	(6	4	0)	(8	9	2)	2.539	1.309	1.94	32.9	66.0
[4	-6	3]	(6	4	0)	(0	2	4)	2.539	1.306	1.94	85.3	83.1

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Anthophyllite (640) 485 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[6	-9	31]	(6	4	0)	(-2	9	3)	2.539	1.305	1.95	75.2	50.1
[6	-9	23]	(6	4	0)	(2	9	3)	2.539	1.305	1.95	60.8	58.2
[6	-9	-31]	(6	4	0)	(8	-5	3)	2.539	1.304	1.95	75.1	50.1
[6	-9	-1]	(6	4	0)	(8	5	3)	2.539	1.304	1.95	47.8	88.5
[8	-12	-7]	(6	4	0)	(2	-1	4)	2.539	1.303	1.95	85.7	81.9
[8	-12	-1]	(6	4	0)	(2	1	4)	2.539	1.303	1.95	80.9	88.8
[2	-3	2]	(6	4	0)	(-1	2	4)	2.539	1.303	1.95	88.6	80.8
[2	-3	1]	(6	4	0)	(1	2	4)	2.539	1.303	1.95	81.9	85.4
[6	-9	34]	(6	4	0)	(-5	8	3)	2.539	1.296	1.96	87.7	47.5
[6	-9	-14]	(6	4	0)	(5	8	-3)	2.539	1.296	1.96	51.9	69.3
[4	-6	-3]	(6	4	0)	(3	0	4)	2.539	1.291	1.97	80.1	83.1
[8	-12	-9]	(6	4	0)	(3	-1	4)	2.539	1.287	1.97	82.5	79.7
[8	-12	-3]	(6	4	0)	(3	1	4)	2.539	1.287	1.97	77.7	86.5
[8	-12	11]	(6	4	0)	(-1	3	4)	2.539	1.286	1.97	86.3	77.4
[8	-12	7]	(6	4	0)	(1	3	4)	2.539	1.286	1.97	79.7	81.9
[2	-3	-10]	(6	4	0)	(9	-4	3)	2.539	1.281	1.98	69.5	51.0
[2	-3	2]	(6	4	0)	(9	4	-3)	2.539	1.281	1.98	47.5	80.8
[2	-3	3]	(6	4	0)	(-3	2	4)	2.539	1.278	1.99	84.9	76.3
[2	-3	0]	(6	4	0)	(3	2	4)	2.539	1.278	1.99	75.4	90.0
[8	-12	13]	(6	4	0)	(-2	3	4)	2.539	1.277	1.99	89.6	75.3
[8	-12	5]	(6	4	0)	(2	3	4)	2.539	1.277	1.99	76.4	84.2
[6	-9	-35]	(6	4	0)	(7	-7	3)	2.539	1.271	2.00	83.5	46.6
[6	-9	7]	(6	4	0)	(7	7	3)	2.539	1.271	2.00	47.3	79.3
[6	-9	-2]	(6	4	0)	(8	6	-3)	2.539	1.268	2.00	46.2	86.9
[6	-9	-35]	(6	4	0)	(4	-9	3)	2.539	1.268	2.00	82.2	46.6
[6	-9	-19]	(6	4	0)	(4	9	-3)	2.539	1.268	2.00	54.0	62.9
[8	-12	11]	(6	4	0)	(4	-1	-4)	2.539	1.266	2.01	79.3	77.4
[8	-12	-5]	(6	4	0)	(4	1	4)	2.539	1.266	2.01	74.6	84.2
[2	-3	-12]	(6	4	0)	(6	-8	3)	2.539	1.262	2.01	89.0	45.8
[2	-3	4]	(6	4	0)	(6	8	3)	2.539	1.262	2.01	48.9	72.1
[8	-12	-15]	(6	4	0)	(3	-3	4)	2.539	1.262	2.01	87.2	73.1
[8	-12	3]	(6	4	0)	(3	3	4)	2.539	1.262	2.01	73.2	86.5
[4	-6	9]	(6	4	0)	(9	9	2)	2.539	1.257	2.02	30.4	70.0
[2	-3	-11]	(6	4	0)	(9	-5	3)	2.539	1.252	2.03	72.3	48.3
[2	-3	-1]	(6	4	0)	(9	5	3)	2.539	1.252	2.03	45.6	85.4
[4	-6	-5]	(6	4	0)	(5	0	4)	2.539	1.243	2.04	73.9	78.6
[6	-9	37]	(6	4	0)	(-5	9	3)	2.539	1.242	2.04	85.5	45.0
[6	-9	17]	(6	4	0)	(5	9	3)	2.539	1.242	2.04	50.9	65.4
[8	-12	-17]	(6	4	0)	(4	-3	4)	2.539	1.242	2.05	84.1	71.0
[8	-12	-1]	(6	4	0)	(4	3	-4)	2.539	1.242	2.05	70.2	88.8
[8	-12	-13]	(6	4	0)	(5	-1	4)	2.539	1.240	2.05	76.3	75.3
[8	-12	-7]	(6	4	0)	(5	1	4)	2.539	1.240	2.05	71.6	81.9
[4	-6	-9]	(6	4	0)	(3	-4	4)	2.539	1.240	2.05	89.5	70.0
[4	-6	3]	(6	4	0)	(3	4	4)	2.539	1.240	2.05	71.2	83.1
[8	-12	17]	(6	4	0)	(-1	5	4)	2.539	1.236	2.05	81.9	71.0
[8	-12	13]	(6	4	0)	(1	5	4)	2.539	1.236	2.05	75.5	75.3
[2	-3	-4]	(6	4	0)	(5	-2	4)	2.539	1.231	2.06	78.7	72.1
[2	-3	-1]	(6	4	0)	(5	2	4)	2.539	1.231	2.06	69.4	85.4

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Anthophyllite (640) 485 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[6	-9	-37]	(6	4	0)	(8	-7	3)	2.539	1.228	2.07	80.5	45.0
[6	-9	-5]	(6	4	0)	(8	7	-3)	2.539	1.228	2.07	44.8	82.3
[8	-12	-19]	(6	4	0)	(2	-5	4)	2.539	1.228	2.07	85.1	69.0
[8	-12	11]	(6	4	0)	(2	5	4)	2.539	1.228	2.07	72.3	77.4
[6	-9	-10]	(6	4	0)	(7	8	-3)	2.539	1.226	2.07	46.2	74.9
[8	-12	19]	(6	4	0)	(-5	3	4)	2.539	1.217	2.09	81.1	69.0
[8	-12	-1]	(6	4	0)	(5	3	4)	2.539	1.217	2.09	67.3	88.8
[8	-12	21]	(6	4	0)	(-3	5	4)	2.539	1.214	2.09	88.3	67.0
[8	-12	9]	(6	4	0)	(3	5	4)	2.539	1.214	2.09	69.2	79.7
[8	-12	-15]	(6	4	0)	(6	-1	4)	2.539	1.211	2.10	73.4	73.1
[8	-12	-9]	(6	4	0)	(6	1	4)	2.539	1.211	2.10	68.8	79.7
[2	-3	5]	(6	4	0)	(-1	6	4)	2.539	1.205	2.11	79.9	68.0
[2	-3	4]	(6	4	0)	(1	6	4)	2.539	1.205	2.11	73.6	72.1
[4	-6	-11]	(6	4	0)	(5	-4	4)	2.539	1.198	2.12	83.4	66.0
[4	-6	1]	(6	4	0)	(5	4	4)	2.539	1.198	2.12	65.3	87.7
[8	-12	-23]	(6	4	0)	(4	-5	4)	2.539	1.196	2.12	88.7	65.0
[8	-12	7]	(6	4	0)	(4	5	4)	2.539	1.196	2.12	66.3	81.9
[8	-12	21]	(6	4	0)	(6	-3	-4)	2.539	1.189	2.14	78.2	67.0
[8	-12	-3]	(6	4	0)	(6	3	4)	2.539	1.189	2.14	64.5	86.5
[6	-9	8]	(6	4	0)	(8	8	3)	2.539	1.187	2.14	43.6	77.8
[2	-3	-1]	(6	4	0)	(9	7	-3)	2.539	1.185	2.14	42.5	85.4
[2	-3	-6]	(6	4	0)	(3	-6	4)	2.539	1.185	2.14	86.2	64.1
[2	-3	3]	(6	4	0)	(3	6	4)	2.539	1.185	2.14	67.5	76.3
[4	-6	-7]	(6	4	0)	(7	0	4)	2.539	1.181	2.15	68.4	74.2
[6	-9	13]	(6	4	0)	(7	9	3)	2.539	1.179	2.15	45.3	70.7
[8	-12	-17]	(6	4	0)	(7	-1	4)	2.539	1.178	2.15	70.7	71.0
[8	-12	-11]	(6	4	0)	(7	1	4)	2.539	1.178	2.15	66.1	77.4
[8	-12	-25]	(6	4	0)	(5	-5	4)	2.539	1.174	2.16	85.7	63.2
[8	-12	-5]	(6	4	0)	(5	5	-4)	2.539	1.174	2.16	63.4	84.2
[2	-3	5]	(6	4	0)	(7	-2	-4)	2.539	1.171	2.17	73.1	68.0
[2	-3	-2]	(6	4	0)	(7	2	4)	2.539	1.171	2.17	64.0	80.8
[8	-12	23]	(6	4	0)	(-1	7	4)	2.539	1.171	2.17	78.0	65.0
[8	-12	19]	(6	4	0)	(1	7	4)	2.539	1.171	2.17	71.8	69.0
[8	-12	25]	(6	4	0)	(-2	7	4)	2.539	1.164	2.18	81.1	63.2
[8	-12	17]	(6	4	0)	(2	7	4)	2.539	1.164	2.18	68.8	71.0
[8	-12	-23]	(6	4	0)	(7	-3	4)	2.539	1.158	2.19	75.5	65.0
[8	-12	-5]	(6	4	0)	(7	3	4)	2.539	1.158	2.19	61.9	84.2
[8	-12	27]	(6	4	0)	(-3	7	4)	2.539	1.152	2.20	84.2	61.3
[8	-12	15]	(6	4	0)	(3	7	4)	2.539	1.152	2.20	65.8	73.1
[8	-12	-27]	(6	4	0)	(6	-5	4)	2.539	1.149	2.21	82.8	61.3
[8	-12	3]	(6	4	0)	(6	5	4)	2.539	1.149	2.21	60.7	86.5
[2	-3	-2]	(6	4	0)	(9	8	-3)	2.539	1.148	2.21	41.3	80.8
[2	-3	7]	(6	4	0)	(-5	6	4)	2.539	1.148	2.21	87.9	60.5
[6	-9	11]	(6	4	0)	(8	9	3)	2.539	1.145	2.22	42.7	73.5
[8	-12	-19]	(6	4	0)	(8	-1	4)	2.539	1.144	2.22	68.2	69.0
[8	-12	-13]	(6	4	0)	(8	1	4)	2.539	1.144	2.22	63.7	75.3
[4	-6	-13]	(6	4	0)	(7	-4	4)	2.539	1.142	2.22	77.8	62.2
[4	-6	-1]	(6	4	0)	(7	4	4)	2.539	1.142	2.22	60.0	87.7

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[8	-12	29]	(6	4	0)	(-4	7	4)	2.539	1.137	2.23	87.1	59.6
[8	-12	-13]	(6	4	0)	(4	7	-4)	2.539	1.137	2.23	63.0	75.3
[4	-6	11]	(6	4	0)	(1	8	4)	2.539	1.135	2.24	70.2	66.0
[8	-12	-25]	(6	4	0)	(8	-3	4)	2.539	1.126	2.26	72.9	63.2
[8	-12	-7]	(6	4	0)	(8	3	4)	2.539	1.126	2.26	59.5	81.9
[8	-12	29]	(6	4	0)	(-7	5	4)	2.539	1.121	2.26	80.1	59.6
[8	-12	-1]	(6	4	0)	(7	5	-4)	2.539	1.121	2.26	58.2	88.8
[8	-12	31]	(6	4	0)	(-5	7	4)	2.539	1.118	2.27	90.0	57.9
[8	-12	11]	(6	4	0)	(5	7	4)	2.539	1.118	2.27	60.2	77.4
[4	-6	15]	(6	4	0)	(-3	8	4)	2.539	1.118	2.27	82.3	58.7
[4	-6	9]	(6	4	0)	(3	8	4)	2.539	1.118	2.27	64.4	70.0
[4	-6	-9]	(6	4	0)	(9	0	4)	2.539	1.111	2.29	63.6	70.0
[8	-12	21]	(6	4	0)	(-9	1	4)	2.539	1.109	2.29	65.9	67.0
[8	-12	-15]	(6	4	0)	(9	1	4)	2.539	1.109	2.29	61.4	73.1
[2	-3	-6]	(6	4	0)	(9	-2	4)	2.539	1.102	2.30	68.2	64.1
[2	-3	-3]	(6	4	0)	(9	2	4)	2.539	1.102	2.30	59.2	76.3
[2	-3	-8]	(6	4	0)	(7	-6	4)	2.539	1.098	2.31	82.3	57.1
[2	-3	1]	(6	4	0)	(7	6	4)	2.539	1.098	2.31	56.6	85.4
[8	-12	29]	(6	4	0)	(-1	9	4)	2.539	1.098	2.31	74.7	59.6
[8	-12	25]	(6	4	0)	(1	9	4)	2.539	1.098	2.31	68.8	63.2
[8	-12	-33]	(6	4	0)	(6	-7	4)	2.539	1.096	2.32	87.2	56.3
[8	-12	-9]	(6	4	0)	(6	7	-4)	2.539	1.096	2.32	57.6	79.7
[8	-12	31]	(6	4	0)	(-2	9	4)	2.539	1.092	2.32	77.6	57.9
[8	-12	23]	(6	4	0)	(2	9	4)	2.539	1.092	2.32	65.9	65.0
[8	-12	-27]	(6	4	0)	(9	-3	4)	2.539	1.092	2.33	70.5	61.3
[8	-12	-9]	(6	4	0)	(9	3	4)	2.539	1.092	2.33	57.2	79.7
[8	-12	-31]	(6	4	0)	(8	-5	4)	2.539	1.092	2.33	77.5	57.9
[8	-12	-1]	(6	4	0)	(8	5	4)	2.539	1.092	2.33	55.8	88.8
[4	-6	17]	(6	4	0)	(-5	8	4)	2.539	1.087	2.34	88.1	55.5
[4	-6	-7]	(6	4	0)	(5	8	-4)	2.539	1.087	2.34	58.8	74.2
[8	-12	-33]	(6	4	0)	(3	-9	4)	2.539	1.083	2.34	80.5	56.3
[8	-12	21]	(6	4	0)	(3	9	4)	2.539	1.083	2.34	63.0	67.0
[4	-6	-15]	(6	4	0)	(9	-4	4)	2.539	1.078	2.36	72.8	58.7
[4	-6	-3]	(6	4	0)	(9	4	4)	2.539	1.078	2.36	55.4	83.1
[8	-12	-35]	(6	4	0)	(7	-7	4)	2.539	1.072	2.37	84.5	54.7
[8	-12	7]	(6	4	0)	(7	7	4)	2.539	1.072	2.37	55.1	81.9
[8	-12	-19]	(6	4	0)	(4	9	-4)	2.539	1.070	2.37	60.3	69.0
[8	-12	-33]	(6	4	0)	(9	-5	4)	2.539	1.061	2.39	75.1	56.3
[8	-12	-3]	(6	4	0)	(9	5	4)	2.539	1.061	2.39	53.6	86.5
[10	-15	-2]	(6	4	0)	(1	0	5)	2.539	1.054	2.41	87.3	88.1
[8	-12	37]	(6	4	0)	(-5	9	4)	2.539	1.054	2.41	86.2	53.2
[8	-12	17]	(6	4	0)	(5	9	4)	2.539	1.054	2.41	57.6	71.0
[10	-15	3]	(6	4	0)	(0	1	5)	2.539	1.054	2.41	88.1	87.2
[2	-3	-1]	(6	4	0)	(1	-1	5)	2.539	1.052	2.41	89.2	85.4
[10	-15	1]	(6	4	0)	(1	1	5)	2.539	1.052	2.41	85.4	89.1
[10	-15	-4]	(6	4	0)	(2	0	5)	2.539	1.049	2.42	84.6	86.3
[10	-15	-7]	(6	4	0)	(2	-1	5)	2.539	1.047	2.42	86.6	83.5
[10	-15	-1]	(6	4	0)	(2	1	5)	2.539	1.047	2.42	82.7	89.1

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Anthophyllite (640) 485 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[10	-15	8]	(6	4	0)	(-1	2	5)	2.539	1.047	2.42	88.9	82.6
[10	-15	4]	(6	4	0)	(1	2	5)	2.539	1.047	2.42	83.5	86.3
[8	-12	-37]	(6	4	0)	(8	-7	4)	2.539	1.046	2.43	81.9	53.2
[8	-12	-5]	(6	4	0)	(8	7	-4)	2.539	1.046	2.43	52.8	84.2
[4	-6	19]	(6	4	0)	(-7	8	4)	2.539	1.044	2.43	86.5	52.4
[4	-6	-5]	(6	4	0)	(7	8	-4)	2.539	1.044	2.43	53.8	78.6
[2	-3	2]	(6	4	0)	(-2	2	5)	2.539	1.042	2.44	88.5	80.8
[10	-15	2]	(6	4	0)	(2	2	5)	2.539	1.042	2.44	80.9	88.1
[2	-3	-9]	(6	4	0)	(9	-6	4)	2.539	1.041	2.44	77.3	53.9
[2	-3	0]	(6	4	0)	(9	6	4)	2.539	1.041	2.44	52.1	90.0
[10	-15	-6]	(6	4	0)	(3	0	5)	2.539	1.041	2.44	82.0	84.5
[10	-15	9]	(6	4	0)	(0	3	5)	2.539	1.040	2.44	84.3	81.7
[10	-15	-9]	(6	4	0)	(3	-1	5)	2.539	1.039	2.44	83.9	81.7
[10	-15	-3]	(6	4	0)	(3	1	5)	2.539	1.039	2.44	80.1	87.2
[10	-15	11]	(6	4	0)	(-1	3	5)	2.539	1.038	2.45	87.0	79.9
[10	-15	7]	(6	4	0)	(1	3	5)	2.539	1.038	2.45	81.7	83.5
[8	-12	39]	(6	4	0)	(-6	9	4)	2.539	1.036	2.45	88.9	51.7
[8	-12	-15]	(6	4	0)	(6	9	-4)	2.539	1.036	2.45	55.1	73.1
[10	-15	-12]	(6	4	0)	(3	-2	5)	2.539	1.034	2.46	85.8	79.0
[2	-3	0]	(6	4	0)	(3	2	5)	2.539	1.034	2.46	78.3	90.0
[10	-15	13]	(6	4	0)	(-2	3	5)	2.539	1.033	2.46	89.6	78.1
[2	-3	1]	(6	4	0)	(2	3	5)	2.539	1.033	2.46	79.0	85.4
[10	-15	-8]	(6	4	0)	(4	0	5)	2.539	1.030	2.47	79.4	82.6
[10	-15	-11]	(6	4	0)	(4	-1	5)	2.539	1.028	2.47	81.3	79.9
[2	-3	-1]	(6	4	0)	(4	1	5)	2.539	1.028	2.47	77.6	85.4
[10	-15	14]	(6	4	0)	(-1	4	5)	2.539	1.026	2.47	85.2	77.2
[2	-3	2]	(6	4	0)	(1	4	5)	2.539	1.026	2.47	79.9	80.8
[2	-3	-3]	(6	4	0)	(3	-3	5)	2.539	1.025	2.48	87.7	76.3
[10	-15	-3]	(6	4	0)	(3	3	-5)	2.539	1.025	2.48	76.4	87.2
[10	-15	14]	(6	4	0)	(-4	2	5)	2.539	1.023	2.48	83.3	77.2
[10	-15	-2]	(6	4	0)	(4	2	5)	2.539	1.023	2.48	75.7	88.1
[10	-15	16]	(6	4	0)	(-2	4	5)	2.539	1.021	2.49	87.8	75.5
[10	-15	8]	(6	4	0)	(2	4	5)	2.539	1.021	2.49	77.3	82.6
[8	-12	-39]	(6	4	0)	(9	-7	4)	2.539	1.019	2.49	79.5	51.7
[8	-12	-3]	(6	4	0)	(9	7	-4)	2.539	1.019	2.49	50.6	86.5
[8	-12	41]	(6	4	0)	(-7	9	4)	2.539	1.015	2.50	88.5	50.3
[8	-12	13]	(6	4	0)	(7	9	4)	2.539	1.015	2.50	52.7	75.3
[10	-15	-17]	(6	4	0)	(4	-3	5)	2.539	1.015	2.50	85.2	74.6
[10	-15	1]	(6	4	0)	(4	3	5)	2.539	1.015	2.50	73.9	89.1
[10	-15	-13]	(6	4	0)	(5	-1	5)	2.539	1.014	2.50	78.8	78.1
[10	-15	-7]	(6	4	0)	(5	1	5)	2.539	1.014	2.50	75.1	83.5
[10	-15	-18]	(6	4	0)	(3	-4	5)	2.539	1.014	2.50	89.6	73.7
[10	-15	6]	(6	4	0)	(3	4	5)	2.539	1.014	2.50	74.7	84.5
[10	-15	17]	(6	4	0)	(-1	5	5)	2.539	1.011	2.51	83.4	74.6
[10	-15	13]	(6	4	0)	(1	5	5)	2.539	1.011	2.51	78.2	78.1
[10	-15	-16]	(6	4	0)	(5	-2	5)	2.539	1.009	2.52	80.8	75.5
[10	-15	-4]	(6	4	0)	(5	2	5)	2.539	1.009	2.52	73.2	86.3
[10	-15	19]	(6	4	0)	(-2	5	5)	2.539	1.007	2.52	86.0	72.9

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Anthophyllite (640) 485 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[10	-15	11]	(6	4	0)	(2	5	5)	2.539	1.007	2.52	75.6	79.9
[2	-3	-4]	(6	4	0)	(4	-4	5)	2.539	1.003	2.53	87.1	72.1
[10	-15	4]	(6	4	0)	(4	4	5)	2.539	1.003	2.53	72.2	86.3
[10	-15	-19]	(6	4	0)	(5	-3	5)	2.539	1.001	2.54	82.7	72.9
[10	-15	-1]	(6	4	0)	(5	3	5)	2.539	1.001	2.54	71.5	89.1

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Anthophyllite (270) 481 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[7	-2	-7]	(2	7	0)	(1	0	1)	2.465	5.077	0.49	85.8	74.6
[7	-2	2]	(2	7	0)	(0	1	1)	2.465	5.064	0.49	74.2	85.5
[7	-2	9]	(2	7	0)	(-1	1	1)	2.465	4.885	0.50	78.9	70.5
[7	-2	5]	(2	7	0)	(1	1	-1)	2.465	4.885	0.50	70.5	78.9
[7	-2	-14]	(2	7	0)	(2	0	1)	2.465	4.586	0.54	82.4	61.2
[7	-2	16]	(2	7	0)	(-2	1	1)	2.465	4.442	0.55	83.6	57.8
[7	-2	-12]	(2	7	0)	(2	1	1)	2.465	4.442	0.55	68.5	64.8
[7	-2	11]	(2	7	0)	(-1	2	1)	2.465	4.416	0.56	65.7	66.6
[7	-2	-3]	(2	7	0)	(1	2	1)	2.465	4.416	0.56	57.4	83.3
[7	-2	18]	(2	7	0)	(-2	2	1)	2.465	4.081	0.60	71.2	54.7
[7	-2	-10]	(2	7	0)	(2	2	1)	2.465	4.081	0.60	56.1	68.5
[7	-2	-21]	(2	7	0)	(3	0	1)	2.465	4.011	0.61	80.0	50.5
[7	-2	6]	(2	7	0)	(0	3	1)	2.465	3.954	0.62	50.3	76.7
[7	-2	23]	(2	7	0)	(-3	1	1)	2.465	3.914	0.63	87.6	47.9
[7	-2	-19]	(2	7	0)	(3	1	1)	2.465	3.914	0.63	67.7	53.3
[7	-2	13]	(2	7	0)	(-1	3	1)	2.465	3.867	0.64	55.3	62.9
[7	-2	-1]	(2	7	0)	(1	3	1)	2.465	3.867	0.64	47.1	87.7
[7	-2	25]	(2	7	0)	(-3	2	1)	2.465	3.660	0.67	76.3	45.5
[7	-2	-17]	(2	7	0)	(3	2	1)	2.465	3.660	0.67	56.5	56.3
[7	-2	20]	(2	7	0)	(-2	3	1)	2.465	3.636	0.68	61.1	51.8
[7	-2	-8]	(2	7	0)	(2	3	1)	2.465	3.636	0.68	46.2	72.5
[7	-2	15]	(2	7	0)	(-1	4	1)	2.465	3.357	0.73	47.6	59.5
[7	-2	1]	(2	7	0)	(1	4	1)	2.465	3.357	0.73	39.5	87.7
[7	-2	-15]	(2	7	0)	(3	3	1)	2.465	3.329	0.74	47.0	59.5
[7	-2	-24]	(2	7	0)	(4	2	1)	2.465	3.243	0.76	57.6	46.7
[7	-2	22]	(2	7	0)	(-2	4	1)	2.465	3.203	0.77	53.3	49.2
[7	-2	-6]	(2	7	0)	(2	4	1)	2.465	3.203	0.77	38.6	76.7
[7	-2	-22]	(2	7	0)	(4	3	1)	2.465	3.005	0.82	48.8	49.2
[7	-2	-13]	(2	7	0)	(3	4	1)	2.465	2.987	0.83	39.4	62.9
[7	-2	10]	(2	7	0)	(0	5	1)	2.465	2.963	0.83	37.1	68.5
[7	-2	17]	(2	7	0)	(-1	5	1)	2.465	2.926	0.84	41.8	56.3
[7	-2	3]	(2	7	0)	(1	5	1)	2.465	2.926	0.84	33.9	83.3
[7	-2	24]	(2	7	0)	(-2	5	1)	2.465	2.822	0.87	47.3	46.7
[7	-2	-4]	(2	7	0)	(2	5	1)	2.465	2.822	0.87	32.8	81.1
[7	-2	-20]	(2	7	0)	(4	4	1)	2.465	2.747	0.90	41.4	51.8
[7	-2	-11]	(2	7	0)	(3	5	1)	2.465	2.671	0.92	33.4	66.6
[7	-2	0]	(2	7	0)	(0	0	2)	2.465	2.640	0.93	90.0	90.0
[14	-4	7]	(2	7	0)	(1	0	-2)	2.465	2.614	0.94	87.8	82.2
[14	-4	9]	(2	7	0)	(-1	1	2)	2.465	2.586	0.95	84.1	80.0
[14	-4	-5]	(2	7	0)	(1	1	2)	2.465	2.586	0.95	79.8	84.4
[7	-2	19]	(2	7	0)	(-1	6	1)	2.465	2.572	0.96	37.4	53.3
[7	-2	5]	(2	7	0)	(1	6	1)	2.465	2.572	0.96	29.8	78.9
[7	-2	8]	(2	7	0)	(-2	1	2)	2.465	2.513	0.98	86.4	72.5
[7	-2	-6]	(2	7	0)	(2	1	2)	2.465	2.513	0.98	78.0	76.7
[14	-4	11]	(2	7	0)	(-1	2	2)	2.465	2.509	0.98	76.5	77.8
[14	-4	-3]	(2	7	0)	(1	2	2)	2.465	2.509	0.98	72.2	86.6
[7	-2	-2]	(2	7	0)	(2	6	1)	2.465	2.501	0.99	28.4	85.5
[7	-2	-18]	(2	7	0)	(4	5	1)	2.465	2.495	0.99	35.4	54.7

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Anthophyllite (270) 481 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[14	-4	-21]	(2	7	0)	(3	0	2)	2.465	2.427	1.02	84.0	67.6
[14	-4	23]	(2	7	0)	(-3	1	2)	2.465	2.405	1.02	88.5	65.7
[14	-4	-19]	(2	7	0)	(3	1	2)	2.465	2.405	1.02	76.5	69.5
[14	-4	13]	(2	7	0)	(-1	3	2)	2.465	2.394	1.03	69.4	75.7
[14	-4	-1]	(2	7	0)	(1	3	2)	2.465	2.394	1.03	65.1	88.9
[7	-2	9]	(2	7	0)	(3	6	-1)	2.465	2.394	1.03	28.7	70.5
[14	-4	-25]	(2	7	0)	(-3	2	-2)	2.465	2.342	1.05	81.3	63.8
[14	-4	-17]	(2	7	0)	(3	2	2)	2.465	2.342	1.05	69.3	71.5
[7	-2	10]	(2	7	0)	(-2	3	2)	2.465	2.336	1.06	71.9	68.5
[7	-2	-4]	(2	7	0)	(2	3	2)	2.465	2.336	1.06	63.6	81.1
[7	-2	-25]	(2	7	0)	(5	5	1)	2.465	2.313	1.07	37.9	45.5
[7	-2	14]	(2	7	0)	(0	7	1)	2.465	2.301	1.07	29.8	61.2
[7	-2	21]	(2	7	0)	(-1	7	1)	2.465	2.284	1.08	34.1	50.5
[7	-2	7]	(2	7	0)	(1	7	1)	2.465	2.284	1.08	26.7	74.6
[7	-2	-15]	(2	7	0)	(4	-1	2)	2.465	2.274	1.08	89.5	59.5
[7	-2	-13]	(2	7	0)	(4	1	2)	2.465	2.274	1.08	75.3	62.9
[7	-2	4]	(2	7	0)	(0	4	2)	2.465	2.274	1.08	60.7	81.1
[7	-2	-16]	(2	7	0)	(4	6	1)	2.465	2.265	1.09	30.4	57.8
[14	-4	15]	(2	7	0)	(-1	4	2)	2.465	2.257	1.09	63.0	73.6
[14	-4	1]	(2	7	0)	(1	4	2)	2.465	2.257	1.09	58.8	88.9
[14	-4	27]	(2	7	0)	(-3	3	2)	2.465	2.248	1.10	74.6	62.1
[14	-4	-15]	(2	7	0)	(3	3	2)	2.465	2.248	1.10	62.6	73.6
[7	-2	0]	(2	7	0)	(2	7	1)	2.465	2.233	1.10	25.0	90.0
[7	-2	7]	(2	7	0)	(3	7	-1)	2.465	2.156	1.14	25.1	74.6
[14	-4	35]	(2	7	0)	(-5	0	2)	2.465	2.149	1.15	81.1	55.5
[7	-2	17]	(2	7	0)	(-4	3	2)	2.465	2.140	1.15	77.1	56.3
[7	-2	-11]	(2	7	0)	(4	3	2)	2.465	2.140	1.15	62.0	66.6
[14	-4	-37]	(2	7	0)	(5	-1	2)	2.465	2.134	1.16	87.8	54.0
[14	-4	-33]	(2	7	0)	(5	1	2)	2.465	2.134	1.16	74.4	57.0
[14	-4	29]	(2	7	0)	(-3	4	2)	2.465	2.133	1.16	68.4	60.3
[14	-4	-13]	(2	7	0)	(3	4	2)	2.465	2.133	1.16	56.5	75.7
[7	-2	-23]	(2	7	0)	(5	6	1)	2.465	2.126	1.16	32.9	47.9
[14	-4	17]	(2	7	0)	(-1	5	2)	2.465	2.111	1.17	57.5	71.5
[14	-4	3]	(2	7	0)	(1	5	2)	2.465	2.111	1.17	53.2	86.6
[14	-4	39]	(2	7	0)	(-5	2	2)	2.465	2.090	1.18	85.7	52.5
[14	-4	-31]	(2	7	0)	(5	2	2)	2.465	2.090	1.18	67.9	58.7
[7	-2	12]	(2	7	0)	(-2	5	2)	2.465	2.071	1.19	60.1	64.8
[7	-2	-2]	(2	7	0)	(2	5	2)	2.465	2.071	1.19	51.9	85.5
[7	-2	-14]	(2	7	0)	(4	7	1)	2.465	2.060	1.20	26.4	61.2
[7	-2	23]	(2	7	0)	(-1	8	1)	2.465	2.047	1.20	31.5	47.9
[7	-2	9]	(2	7	0)	(1	8	1)	2.465	2.047	1.20	24.3	70.5
[14	-4	41]	(2	7	0)	(-5	3	2)	2.465	2.022	1.22	79.6	51.1
[14	-4	-29]	(2	7	0)	(5	3	2)	2.465	2.022	1.22	61.8	60.3
[7	-2	2]	(2	7	0)	(2	8	1)	2.465	2.011	1.23	22.5	85.5
[14	-4	31]	(2	7	0)	(-3	5	2)	2.465	2.009	1.23	63.0	58.7
[14	-4	-11]	(2	7	0)	(3	5	2)	2.465	2.009	1.23	51.1	77.8
[7	-2	-22]	(2	7	0)	(6	-1	2)	2.465	1.993	1.24	86.3	49.2
[7	-2	20]	(2	7	0)	(6	1	-2)	2.465	1.993	1.24	73.8	51.8

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Anthophyllite (270) 481 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[14	-4	19]	(2	7	0)	(-1	6	2)	2.465	1.966	1.25	52.6	69.5
[14	-4	5]	(2	7	0)	(1	6	2)	2.465	1.966	1.25	48.4	84.4
[7	-2	5]	(2	7	0)	(3	8	-1)	2.465	1.954	1.26	22.2	78.9
[14	-4	43]	(2	7	0)	(-5	4	2)	2.465	1.937	1.27	73.9	49.8
[14	-4	-27]	(2	7	0)	(5	4	2)	2.465	1.937	1.27	56.2	62.1
[7	-2	19]	(2	7	0)	(-4	5	2)	2.465	1.931	1.28	65.9	53.3
[7	-2	-9]	(2	7	0)	(4	5	2)	2.465	1.931	1.28	50.9	70.5
[7	-2	24]	(2	7	0)	(-6	3	2)	2.465	1.901	1.30	81.8	46.7
[7	-2	-18]	(2	7	0)	(6	3	2)	2.465	1.901	1.30	61.9	54.7
[14	-4	33]	(2	7	0)	(-3	6	2)	2.465	1.883	1.31	58.2	57.0
[14	-4	9]	(2	7	0)	(3	6	-2)	2.465	1.883	1.31	46.4	80.0
[7	-2	12]	(2	7	0)	(4	8	-1)	2.465	1.882	1.31	23.2	64.8
[14	-4	-49]	(2	7	0)	(7	0	2)	2.465	1.868	1.32	79.1	46.1
[7	-2	18]	(2	7	0)	(0	9	1)	2.465	1.861	1.32	25.6	54.7
[14	-4	-47]	(2	7	0)	(7	1	2)	2.465	1.858	1.33	73.3	47.3
[7	-2	25]	(2	7	0)	(-1	9	1)	2.465	1.852	1.33	29.5	45.5
[7	-2	11]	(2	7	0)	(1	9	1)	2.465	1.852	1.33	22.5	66.6
[14	-4	45]	(2	7	0)	(-5	5	2)	2.465	1.843	1.34	68.7	48.5
[14	-4	-25]	(2	7	0)	(5	5	2)	2.465	1.843	1.34	51.0	63.8
[14	-4	-45]	(2	7	0)	(7	2	2)	2.465	1.828	1.35	67.6	48.5
[14	-4	21]	(2	7	0)	(-1	7	2)	2.465	1.828	1.35	48.5	67.6
[14	-4	7]	(2	7	0)	(1	7	2)	2.465	1.828	1.35	44.3	82.2
[7	-2	4]	(2	7	0)	(2	9	1)	2.465	1.825	1.35	20.5	81.1
[7	-2	14]	(2	7	0)	(-2	7	2)	2.465	1.802	1.37	51.2	61.2
[7	-2	0]	(2	7	0)	(2	7	2)	2.465	1.802	1.37	43.0	90.0
[7	-2	-19]	(2	7	0)	(5	8	1)	2.465	1.800	1.37	25.2	53.3
[14	-4	-43]	(2	7	0)	(7	3	2)	2.465	1.782	1.38	62.1	49.8
[7	-2	3]	(2	7	0)	(3	9	-1)	2.465	1.782	1.38	19.9	83.3
[14	-4	-35]	(2	7	0)	(3	-7	2)	2.465	1.760	1.40	54.0	55.5
[14	-4	7]	(2	7	0)	(3	7	-2)	2.465	1.760	1.40	42.3	82.2
[21	-6	-7]	(2	7	0)	(1	0	3)	2.465	1.752	1.41	88.6	84.8
[21	-6	2]	(2	7	0)	(0	1	3)	2.465	1.752	1.41	84.6	88.5
[7	-2	16]	(2	7	0)	(6	5	-2)	2.465	1.750	1.41	51.5	57.8
[7	-2	3]	(2	7	0)	(-1	1	3)	2.465	1.744	1.41	86.1	83.3
[21	-6	-5]	(2	7	0)	(1	1	3)	2.465	1.744	1.41	83.2	86.3
[14	-4	47]	(2	7	0)	(-5	6	2)	2.465	1.744	1.41	64.0	47.3
[14	-4	-23]	(2	7	0)	(5	6	2)	2.465	1.744	1.41	46.5	65.7
[21	-6	-14]	(2	7	0)	(2	0	3)	2.465	1.729	1.43	87.1	79.6
[7	-2	-10]	(2	7	0)	(4	9	1)	2.465	1.727	1.43	20.6	68.5
[14	-4	-41]	(2	7	0)	(7	4	2)	2.465	1.724	1.43	57.0	51.1
[21	-6	16]	(2	7	0)	(-2	1	3)	2.465	1.721	1.43	87.5	78.2
[7	-2	-4]	(2	7	0)	(2	1	3)	2.465	1.721	1.43	81.8	81.1
[21	-6	11]	(2	7	0)	(-1	2	3)	2.465	1.719	1.43	80.8	81.8
[7	-2	-1]	(2	7	0)	(1	2	3)	2.465	1.719	1.43	77.9	87.7
[7	-2	21]	(2	7	0)	(-4	7	2)	2.465	1.707	1.44	57.0	50.5
[7	-2	-7]	(2	7	0)	(4	7	2)	2.465	1.707	1.44	42.1	74.6
[7	-2	8]	(2	7	0)	(0	8	2)	2.465	1.707	1.44	42.7	72.5
[14	-4	23]	(2	7	0)	(-1	8	2)	2.465	1.700	1.45	45.0	65.7

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Anthophyllite (270) 481 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[14	-4	9]	(2	7	0)	(1	8	2)	2.465	1.700	1.45	40.8	80.0
[7	-2	6]	(2	7	0)	(-2	2	3)	2.465	1.698	1.45	82.3	76.7
[21	-6	-10]	(2	7	0)	(2	2	3)	2.465	1.698	1.45	76.6	82.5
[21	-6	13]	(2	7	0)	(-1	3	3)	2.465	1.681	1.47	75.7	80.3
[21	-6	-1]	(2	7	0)	(1	3	3)	2.465	1.681	1.47	72.8	89.2
[7	-2	25]	(2	7	0)	(8	3	-2)	2.465	1.670	1.48	62.5	45.5
[7	-2	-17]	(2	7	0)	(5	9	1)	2.465	1.663	1.48	22.3	56.3
[21	-6	20]	(2	7	0)	(-2	3	3)	2.465	1.661	1.48	77.3	75.3
[21	-6	-8]	(2	7	0)	(2	3	3)	2.465	1.661	1.48	71.6	84.0
[14	-4	-39]	(2	7	0)	(7	5	2)	2.465	1.656	1.49	52.2	52.5
[14	-4	49]	(2	7	0)	(-5	7	2)	2.465	1.645	1.50	59.9	46.1
[14	-4	-21]	(2	7	0)	(5	7	2)	2.465	1.645	1.50	42.4	67.6
[14	-4	-37]	(2	7	0)	(-3	8	-2)	2.465	1.645	1.50	50.4	54.0
[14	-4	5]	(2	7	0)	(-3	-8	2)	2.465	1.645	1.50	38.8	84.4
[21	-6	-28]	(2	7	0)	(4	0	3)	2.465	1.645	1.50	84.6	69.9
[7	-2	-10]	(2	7	0)	(4	-1	3)	2.465	1.638	1.50	89.6	68.5
[21	-6	-26]	(2	7	0)	(4	1	3)	2.465	1.638	1.50	79.5	71.2
[7	-2	5]	(2	7	0)	(-1	4	3)	2.465	1.631	1.51	70.9	78.9
[21	-6	1]	(2	7	0)	(1	4	3)	2.465	1.631	1.51	68.0	89.2
[21	-6	32]	(2	7	0)	(-4	2	3)	2.465	1.618	1.52	85.4	67.3
[7	-2	-8]	(2	7	0)	(4	2	3)	2.465	1.618	1.52	74.5	72.5
[21	-6	22]	(2	7	0)	(-2	4	3)	2.465	1.613	1.53	72.5	73.9
[7	-2	-2]	(2	7	0)	(2	4	3)	2.465	1.613	1.53	66.8	85.5
[7	-2	24]	(2	7	0)	(6	9	-1)	2.465	1.593	1.55	24.5	46.7
[21	-6	-35]	(2	7	0)	(5	0	3)	2.465	1.589	1.55	83.4	65.4
[21	-6	34]	(2	7	0)	(-4	3	3)	2.465	1.586	1.55	80.5	66.0
[21	-6	-22]	(2	7	0)	(4	3	3)	2.465	1.586	1.55	69.7	73.9
[21	-6	-37]	(2	7	0)	(5	-1	3)	2.465	1.583	1.56	88.4	64.1
[7	-2	-11]	(2	7	0)	(5	1	3)	2.465	1.583	1.56	78.5	66.6
[14	-4	-37]	(2	7	0)	(7	6	2)	2.465	1.583	1.56	47.8	54.0
[21	-6	29]	(2	7	0)	(-3	4	3)	2.465	1.583	1.56	74.2	69.2
[21	-6	-13]	(2	7	0)	(3	4	3)	2.465	1.583	1.56	65.8	80.3
[14	-4	25]	(2	7	0)	(-1	9	2)	2.465	1.583	1.56	41.9	63.8
[14	-4	11]	(2	7	0)	(1	9	2)	2.465	1.583	1.56	37.8	77.8
[21	-6	10]	(2	7	0)	(0	5	3)	2.465	1.579	1.56	64.8	82.5
[7	-2	-14]	(2	7	0)	(6	7	2)	2.465	1.578	1.56	43.0	61.2
[21	-6	17]	(2	7	0)	(-1	5	3)	2.465	1.574	1.57	66.4	77.4
[7	-2	1]	(2	7	0)	(1	5	3)	2.465	1.574	1.57	63.5	87.7
[7	-2	16]	(2	7	0)	(-2	9	2)	2.465	1.566	1.57	44.5	57.8
[7	-2	2]	(2	7	0)	(2	9	2)	2.465	1.566	1.57	36.5	85.5
[7	-2	13]	(2	7	0)	(-5	2	3)	2.465	1.565	1.58	86.8	62.9
[21	-6	-31]	(2	7	0)	(5	2	3)	2.465	1.565	1.58	73.7	67.9
[7	-2	-23]	(2	7	0)	(8	5	2)	2.465	1.565	1.58	53.0	47.9
[7	-2	8]	(2	7	0)	(-2	5	3)	2.465	1.557	1.58	68.0	72.5
[21	-6	-4]	(2	7	0)	(2	5	3)	2.465	1.557	1.58	62.4	87.0
[14	-4	-19]	(2	7	0)	(5	8	2)	2.465	1.550	1.59	38.8	69.5
[7	-2	12]	(2	7	0)	(-4	4	3)	2.465	1.544	1.60	75.9	64.8
[21	-6	-20]	(2	7	0)	(4	4	3)	2.465	1.544	1.60	65.1	75.3

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[14	-4	-39]	(2	7	0)	(-3	9	-2)	2.465	1.538	1.60	47.2	52.5
[14	-4	3]	(2	7	0)	(3	9	-2)	2.465	1.538	1.60	35.7	86.6
[21	-6	41]	(2	7	0)	(-5	3	3)	2.465	1.536	1.60	82.1	61.8
[21	-6	-29]	(2	7	0)	(5	3	3)	2.465	1.536	1.60	69.0	69.2
[21	-6	31]	(2	7	0)	(-3	5	3)	2.465	1.530	1.61	69.8	67.9
[21	-6	-11]	(2	7	0)	(3	5	3)	2.465	1.530	1.61	61.4	81.8
[21	-6	-44]	(2	7	0)	(6	-1	3)	2.465	1.523	1.62	87.2	60.0
[21	-6	-40]	(2	7	0)	(6	1	3)	2.465	1.523	1.62	77.7	62.3
[21	-6	19]	(2	7	0)	(-1	6	3)	2.465	1.511	1.63	62.2	76.0
[21	-6	5]	(2	7	0)	(1	6	3)	2.465	1.511	1.63	59.3	86.3
[14	-4	-35]	(2	7	0)	(7	7	2)	2.465	1.508	1.63	43.9	55.5
[21	-6	46]	(2	7	0)	(-6	2	3)	2.465	1.507	1.64	88.2	58.9
[21	-6	-38]	(2	7	0)	(6	2	3)	2.465	1.507	1.64	73.0	63.5
[7	-2	23]	(2	7	0)	(-4	9	2)	2.465	1.502	1.64	50.1	47.9
[7	-2	-5]	(2	7	0)	(4	9	2)	2.465	1.502	1.64	35.4	78.9
[21	-6	43]	(2	7	0)	(-5	4	3)	2.465	1.498	1.65	77.6	60.6
[7	-2	-9]	(2	7	0)	(5	4	3)	2.465	1.498	1.65	64.5	70.5
[21	-6	26]	(2	7	0)	(-2	6	3)	2.465	1.496	1.65	63.9	71.2
[21	-6	-2]	(2	7	0)	(2	6	3)	2.465	1.496	1.65	58.2	88.5
[21	-6	38]	(2	7	0)	(-4	5	3)	2.465	1.495	1.65	71.6	63.5
[7	-2	-6]	(2	7	0)	(4	5	3)	2.465	1.495	1.65	60.8	76.7
[7	-2	-17]	(2	7	0)	(7	-1	3)	2.465	1.460	1.69	86.1	56.3
[21	-6	-47]	(2	7	0)	(7	1	3)	2.465	1.460	1.69	76.9	58.4
[14	-4	-17]	(2	7	0)	(5	9	2)	2.465	1.460	1.69	35.7	71.5
[7	-2	15]	(2	7	0)	(-5	5	3)	2.465	1.453	1.70	73.4	59.5
[21	-6	-25]	(2	7	0)	(5	5	3)	2.465	1.453	1.70	60.3	71.9
[21	-6	14]	(2	7	0)	(0	7	3)	2.465	1.450	1.70	56.9	79.6
[21	-6	50]	(2	7	0)	(-6	4	3)	2.465	1.446	1.70	79.2	56.8
[21	-6	-34]	(2	7	0)	(6	4	3)	2.465	1.446	1.70	64.1	66.0
[21	-6	53]	(2	7	0)	(-7	2	3)	2.465	1.446	1.70	89.4	55.2
[7	-2	-15]	(2	7	0)	(7	2	3)	2.465	1.446	1.70	72.5	59.5
[7	-2	7]	(2	7	0)	(-1	7	3)	2.465	1.445	1.71	58.4	74.6
[21	-6	7]	(2	7	0)	(1	7	3)	2.465	1.445	1.71	55.6	84.8
[21	-6	40]	(2	7	0)	(-4	6	3)	2.465	1.440	1.71	67.5	62.3
[21	-6	-16]	(2	7	0)	(4	6	3)	2.465	1.440	1.71	56.7	78.2
[7	-2	-21]	(2	7	0)	(8	7	2)	2.465	1.438	1.71	44.9	50.5
[14	-4	-33]	(2	7	0)	(7	8	2)	2.465	1.434	1.72	40.3	57.0
[21	-6	28]	(2	7	0)	(-2	7	3)	2.465	1.432	1.72	60.1	69.9
[7	-2	0]	(2	7	0)	(2	7	3)	2.465	1.432	1.72	54.5	90.0
[21	-6	55]	(2	7	0)	(-7	3	3)	2.465	1.423	1.73	85.0	54.2
[21	-6	43]	(2	7	0)	(7	3	-3)	2.465	1.423	1.73	68.1	60.6
[7	-2	-12]	(2	7	0)	(6	9	2)	2.465	1.412	1.75	36.3	64.8
[21	-6	-35]	(2	7	0)	(-3	7	-3)	2.465	1.411	1.75	61.9	65.4
[21	-6	7]	(2	7	0)	(3	7	-3)	2.465	1.411	1.75	53.6	84.8
[21	-6	-52]	(2	7	0)	(-6	5	-3)	2.465	1.406	1.75	75.1	55.7
[21	-6	-32]	(2	7	0)	(6	5	3)	2.465	1.406	1.75	60.0	67.3
[21	-6	47]	(2	7	0)	(-5	6	3)	2.465	1.403	1.76	69.4	58.4
[21	-6	-23]	(2	7	0)	(5	6	3)	2.465	1.403	1.76	56.3	73.2

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[21	-6	-56]	(2	7	0)	(8	0	3)	2.465	1.401	1.76	80.7	53.7
[21	-6	-58]	(2	7	0)	(8	-1	3)	2.465	1.396	1.77	85.1	52.8
[7	-2	-18]	(2	7	0)	(8	1	3)	2.465	1.396	1.77	76.3	54.7
[7	-2	19]	(2	7	0)	(-7	4	3)	2.465	1.392	1.77	80.8	53.3
[21	-6	-41]	(2	7	0)	(7	4	3)	2.465	1.392	1.77	63.9	61.8
[7	-2	-20]	(2	7	0)	(8	-2	3)	2.465	1.384	1.78	89.4	51.8
[21	-6	-52]	(2	7	0)	(8	2	3)	2.465	1.384	1.78	72.0	55.7
[7	-2	14]	(2	7	0)	(-4	7	3)	2.465	1.383	1.78	63.8	61.2
[21	-6	-14]	(2	7	0)	(4	7	3)	2.465	1.383	1.78	53.0	79.6
[21	-6	23]	(2	7	0)	(-1	8	3)	2.465	1.379	1.79	54.9	73.2
[7	-2	3]	(2	7	0)	(1	8	3)	2.465	1.379	1.79	52.1	83.3
[14	-4	49]	(2	7	0)	(9	7	-2)	2.465	1.370	1.80	46.1	46.1
[7	-2	10]	(2	7	0)	(-2	8	3)	2.465	1.368	1.80	56.6	68.5
[21	-6	2]	(2	7	0)	(2	8	3)	2.465	1.368	1.80	51.0	88.5
[21	-6	62]	(2	7	0)	(-8	3	3)	2.465	1.363	1.81	86.4	50.9
[21	-6	-50]	(2	7	0)	(8	3	3)	2.465	1.363	1.81	67.8	56.8
[14	-4	-31]	(2	7	0)	(7	9	2)	2.465	1.362	1.81	37.1	58.7
[7	-2	-13]	(2	7	0)	(7	5	3)	2.465	1.356	1.82	59.9	62.9
[21	-6	49]	(2	7	0)	(-5	7	3)	2.465	1.350	1.83	65.7	57.3
[7	-2	-7]	(2	7	0)	(5	7	3)	2.465	1.350	1.83	52.7	74.6
[21	-6	-37]	(2	7	0)	(-3	8	-3)	2.465	1.350	1.83	58.5	64.1
[21	-6	5]	(2	7	0)	(3	8	-3)	2.465	1.350	1.83	50.2	86.3
[21	-6	64]	(2	7	0)	(-8	4	3)	2.465	1.337	1.84	82.3	50.0
[7	-2	-16]	(2	7	0)	(8	4	3)	2.465	1.337	1.84	63.8	57.8
[21	-6	-65]	(2	7	0)	(9	-1	3)	2.465	1.333	1.85	84.2	49.6
[21	-6	-61]	(2	7	0)	(9	1	3)	2.465	1.333	1.85	75.8	51.4
[21	-6	44]	(2	7	0)	(-4	8	3)	2.465	1.325	1.86	60.4	60.0
[7	-2	-4]	(2	7	0)	(4	8	3)	2.465	1.325	1.86	49.7	81.1
[21	-6	-67]	(2	7	0)	(9	-2	3)	2.465	1.322	1.86	88.3	48.7
[21	-6	59]	(2	7	0)	(9	2	-3)	2.465	1.322	1.86	71.7	52.3
[28	-8	-7]	(2	7	0)	(1	0	4)	2.465	1.317	1.87	88.9	86.1
[21	-6	61]	(2	7	0)	(-7	6	3)	2.465	1.315	1.87	73.0	51.4
[21	-6	-37]	(2	7	0)	(7	6	3)	2.465	1.315	1.87	56.1	64.1
[21	-6	25]	(2	7	0)	(-1	9	3)	2.465	1.315	1.87	51.8	71.9
[21	-6	11]	(2	7	0)	(1	9	3)	2.465	1.315	1.87	49.0	81.8
[14	-4	47]	(2	7	0)	(9	8	-2)	2.465	1.313	1.88	42.6	47.3
[28	-8	-9]	(2	7	0)	(1	-1	4)	2.465	1.313	1.88	87.0	84.9
[28	-8	-5]	(2	7	0)	(1	1	4)	2.465	1.313	1.88	84.9	87.2
[21	-6	56]	(2	7	0)	(-6	7	3)	2.465	1.312	1.88	67.6	53.7
[21	-6	-28]	(2	7	0)	(6	7	3)	2.465	1.312	1.88	52.6	69.9
[7	-2	-19]	(2	7	0)	(8	9	2)	2.465	1.309	1.88	38.2	53.3
[7	-2	1]	(2	7	0)	(0	2	4)	2.465	1.306	1.89	81.9	87.7
[21	-6	32]	(2	7	0)	(-2	9	3)	2.465	1.305	1.89	53.5	67.3
[21	-6	4]	(2	7	0)	(2	9	3)	2.465	1.305	1.89	47.9	87.0
[7	-2	22]	(2	7	0)	(-8	5	3)	2.465	1.304	1.89	78.4	49.2
[21	-6	-46]	(2	7	0)	(8	5	3)	2.465	1.304	1.89	59.9	58.9
[7	-2	4]	(2	7	0)	(-2	1	4)	2.465	1.303	1.89	88.1	81.1
[7	-2	-3]	(2	7	0)	(2	1	4)	2.465	1.303	1.89	83.8	83.3

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Anthophyllite (270) 481 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[28	-8	11]	(2	7	0)	(-1	2	4)	2.465	1.303	1.89	83.0	83.8
[28	-8	-3]	(2	7	0)	(1	2	4)	2.465	1.303	1.89	80.8	88.3
[7	-2	17]	(2	7	0)	(-5	8	3)	2.465	1.296	1.90	62.3	56.3
[21	-6	-19]	(2	7	0)	(5	8	3)	2.465	1.296	1.90	49.3	76.0
[28	-8	-21]	(2	7	0)	(3	0	4)	2.465	1.291	1.91	86.8	78.3
[28	-8	23]	(2	7	0)	(-3	1	4)	2.465	1.287	1.91	89.2	77.3
[28	-8	-19]	(2	7	0)	(3	1	4)	2.465	1.287	1.91	82.8	79.4
[28	-8	13]	(2	7	0)	(-1	3	4)	2.465	1.286	1.92	79.1	82.7
[28	-8	-1]	(2	7	0)	(1	3	4)	2.465	1.286	1.92	76.9	89.4
[21	-6	71]	(2	7	0)	(-9	4	3)	2.465	1.281	1.92	83.7	47.1
[21	-6	-55]	(2	7	0)	(9	4	3)	2.465	1.281	1.92	63.8	54.2
[28	-8	25]	(2	7	0)	(-3	2	4)	2.465	1.278	1.93	85.3	76.2
[28	-8	-17]	(2	7	0)	(3	2	4)	2.465	1.278	1.93	78.9	80.5
[7	-2	5]	(2	7	0)	(-2	3	4)	2.465	1.277	1.93	80.2	78.9
[7	-2	-2]	(2	7	0)	(2	3	4)	2.465	1.277	1.93	75.9	85.5
[7	-2	21]	(2	7	0)	(-7	7	3)	2.465	1.271	1.94	69.5	50.5
[21	-6	-35]	(2	7	0)	(7	7	3)	2.465	1.271	1.94	52.6	65.4
[21	-6	-44]	(2	7	0)	(8	6	3)	2.465	1.268	1.94	56.2	60.0
[21	-6	46]	(2	7	0)	(-4	9	3)	2.465	1.268	1.94	57.2	58.9
[21	-6	-10]	(2	7	0)	(4	9	3)	2.465	1.268	1.94	46.6	82.5
[14	-4	-15]	(2	7	0)	(4	-1	4)	2.465	1.266	1.95	89.7	73.6
[14	-4	-13]	(2	7	0)	(4	1	4)	2.465	1.266	1.95	81.9	75.7
[28	-8	1]	(2	7	0)	(1	4	4)	2.465	1.263	1.95	73.1	89.4
[21	-6	58]	(2	7	0)	(-6	8	3)	2.465	1.262	1.95	64.2	52.8
[21	-6	-26]	(2	7	0)	(6	8	3)	2.465	1.262	1.95	49.3	71.2
[28	-8	27]	(2	7	0)	(-3	3	4)	2.465	1.262	1.95	81.4	75.1
[28	-8	-15]	(2	7	0)	(3	3	4)	2.465	1.262	1.95	75.0	81.6
[14	-4	45]	(2	7	0)	(9	9	-2)	2.465	1.257	1.96	39.5	48.5
[21	-6	73]	(2	7	0)	(-9	5	3)	2.465	1.252	1.97	79.9	46.3
[21	-6	-53]	(2	7	0)	(9	5	3)	2.465	1.252	1.97	60.0	55.2
[28	-8	-35]	(2	7	0)	(5	0	4)	2.465	1.243	1.98	84.9	71.0
[21	-6	53]	(2	7	0)	(-5	9	3)	2.465	1.242	1.99	59.2	55.2
[21	-6	-17]	(2	7	0)	(5	9	3)	2.465	1.242	1.99	46.3	77.4
[14	-4	17]	(2	7	0)	(-4	3	4)	2.465	1.242	1.99	82.6	71.5
[14	-4	-11]	(2	7	0)	(4	3	4)	2.465	1.242	1.99	74.2	77.8
[28	-8	-37]	(2	7	0)	(5	-1	4)	2.465	1.240	1.99	88.7	70.0
[28	-8	-33]	(2	7	0)	(5	1	4)	2.465	1.240	1.99	81.0	72.0
[28	-8	29]	(2	7	0)	(-3	4	4)	2.465	1.240	1.99	77.7	74.1
[28	-8	-13]	(2	7	0)	(3	4	4)	2.465	1.240	1.99	71.3	82.7
[28	-8	17]	(2	7	0)	(-1	5	4)	2.465	1.236	1.99	71.6	80.5
[28	-8	3]	(2	7	0)	(1	5	4)	2.465	1.236	1.99	69.5	88.3
[28	-8	39]	(2	7	0)	(-5	2	4)	2.465	1.231	2.00	87.5	69.0
[28	-8	-31]	(2	7	0)	(5	2	4)	2.465	1.231	2.00	77.2	73.1
[21	-6	70]	(2	7	0)	(-8	7	3)	2.465	1.228	2.01	71.2	47.5
[7	-2	-14]	(2	7	0)	(8	7	3)	2.465	1.228	2.01	52.8	61.2
[7	-2	6]	(2	7	0)	(-2	5	4)	2.465	1.228	2.01	72.8	76.7
[7	-2	-1]	(2	7	0)	(2	5	4)	2.465	1.228	2.01	68.5	87.7
[21	-6	65]	(2	7	0)	(-7	8	3)	2.465	1.226	2.01	66.1	49.6

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Anthophyllite (270) 481 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[7	-2	-11]	(2	7	0)	(7	8	3)	2.465	1.226	2.01	49.3	66.6
[28	-8	-41]	(2	7	0)	(5	-3	4)	2.465	1.217	2.03	83.7	68.1
[28	-8	-29]	(2	7	0)	(5	3	4)	2.465	1.217	2.03	73.5	74.1
[28	-8	31]	(2	7	0)	(-3	5	4)	2.465	1.214	2.03	74.1	73.1
[28	-8	-11]	(2	7	0)	(3	5	4)	2.465	1.214	2.03	67.7	83.8
[7	-2	-11]	(2	7	0)	(6	-1	4)	2.465	1.211	2.04	87.7	66.6
[7	-2	-10]	(2	7	0)	(6	1	4)	2.465	1.211	2.04	80.2	68.5
[28	-8	19]	(2	7	0)	(-1	6	4)	2.465	1.205	2.05	68.2	79.4
[28	-8	5]	(2	7	0)	(1	6	4)	2.465	1.205	2.05	66.0	87.2
[28	-8	43]	(2	7	0)	(-5	4	4)	2.465	1.198	2.06	80.1	67.1
[28	-8	-27]	(2	7	0)	(5	4	4)	2.465	1.198	2.06	69.9	75.1
[14	-4	19]	(2	7	0)	(-4	5	4)	2.465	1.196	2.06	75.3	69.5
[14	-4	-9]	(2	7	0)	(4	5	4)	2.465	1.196	2.06	67.0	80.0
[7	-2	12]	(2	7	0)	(-6	3	4)	2.465	1.189	2.07	84.9	64.8
[7	-2	-9]	(2	7	0)	(6	3	4)	2.465	1.189	2.07	72.9	70.5
[7	-2	24]	(2	7	0)	(-8	8	3)	2.465	1.187	2.08	68.0	46.7
[21	-6	-40]	(2	7	0)	(8	8	3)	2.465	1.187	2.08	49.6	62.3
[21	-6	49]	(2	7	0)	(9	7	-3)	2.465	1.185	2.08	53.1	57.3
[28	-8	-33]	(2	7	0)	(3	-6	4)	2.465	1.185	2.08	70.6	72.0
[28	-8	-9]	(2	7	0)	(3	6	4)	2.465	1.185	2.08	64.3	84.9
[28	-8	-49]	(2	7	0)	(7	0	4)	2.465	1.181	2.09	83.2	64.3
[21	-6	67]	(2	7	0)	(-7	9	3)	2.465	1.179	2.09	63.1	48.7
[21	-6	-31]	(2	7	0)	(7	9	3)	2.465	1.179	2.09	46.3	67.9
[28	-8	-51]	(2	7	0)	(7	-1	4)	2.465	1.178	2.09	86.8	63.4
[28	-8	-47]	(2	7	0)	(7	1	4)	2.465	1.178	2.09	79.5	65.2
[28	-8	45]	(2	7	0)	(-5	5	4)	2.465	1.174	2.10	76.6	66.1
[28	-8	-25]	(2	7	0)	(5	5	4)	2.465	1.174	2.10	66.4	76.2
[28	-8	53]	(2	7	0)	(-7	2	4)	2.465	1.171	2.11	89.5	62.5
[28	-8	-45]	(2	7	0)	(7	2	4)	2.465	1.171	2.11	75.9	66.1
[28	-8	21]	(2	7	0)	(-1	7	4)	2.465	1.171	2.11	64.9	78.3
[28	-8	7]	(2	7	0)	(1	7	4)	2.465	1.171	2.11	62.7	86.1
[7	-2	0]	(2	7	0)	(2	7	4)	2.465	1.164	2.12	61.8	90.0
[28	-8	55]	(2	7	0)	(-7	3	4)	2.465	1.158	2.13	86.0	61.6
[28	-8	-43]	(2	7	0)	(7	3	4)	2.465	1.158	2.13	72.3	67.1
[28	-8	-35]	(2	7	0)	(-3	7	-4)	2.465	1.152	2.14	67.4	71.0
[28	-8	7]	(2	7	0)	(-3	-7	4)	2.465	1.152	2.14	61.0	86.1
[7	-2	13]	(2	7	0)	(-6	5	4)	2.465	1.149	2.14	77.9	62.9
[7	-2	-8]	(2	7	0)	(6	5	4)	2.465	1.149	2.14	65.9	72.5
[21	-6	47]	(2	7	0)	(9	8	-3)	2.465	1.148	2.15	50.0	58.4
[28	-8	47]	(2	7	0)	(-5	6	4)	2.465	1.148	2.15	73.3	65.2
[28	-8	-23]	(2	7	0)	(5	6	4)	2.465	1.148	2.15	63.0	77.3
[21	-6	74]	(2	7	0)	(-8	9	3)	2.465	1.145	2.15	65.0	45.9
[21	-6	-38]	(2	7	0)	(8	9	3)	2.465	1.145	2.15	46.6	63.5
[14	-4	-29]	(2	7	0)	(8	-1	4)	2.465	1.144	2.15	86.0	60.3
[14	-4	-27]	(2	7	0)	(8	1	4)	2.465	1.144	2.15	78.8	62.1
[28	-8	57]	(2	7	0)	(-7	4	4)	2.465	1.142	2.16	82.5	60.8
[28	-8	-41]	(2	7	0)	(7	4	4)	2.465	1.142	2.16	68.8	68.1
[14	-4	-7]	(2	7	0)	(4	7	4)	2.465	1.137	2.17	60.4	82.2

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Anthophyllite (270) 481 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[28	-8	9]	(2	7	0)	(1	8	4)	2.465	1.135	2.17	59.7	84.9
[14	-4	31]	(2	7	0)	(-8	3	4)	2.465	1.126	2.19	87.0	58.7
[14	-4	-25]	(2	7	0)	(8	3	4)	2.465	1.126	2.19	71.8	63.8
[28	-8	59]	(2	7	0)	(-7	5	4)	2.465	1.121	2.20	79.1	59.9
[28	-8	-39]	(2	7	0)	(7	5	4)	2.465	1.121	2.20	65.5	69.0
[28	-8	49]	(2	7	0)	(-5	7	4)	2.465	1.118	2.20	70.1	64.3
[28	-8	-21]	(2	7	0)	(5	7	4)	2.465	1.118	2.20	59.9	78.3
[28	-8	37]	(2	7	0)	(-3	8	4)	2.465	1.118	2.20	64.3	70.0
[28	-8	5]	(2	7	0)	(3	8	-4)	2.465	1.118	2.20	58.0	87.2
[28	-8	63]	(2	7	0)	(-9	0	4)	2.465	1.111	2.22	81.7	58.2
[28	-8	-61]	(2	7	0)	(9	1	4)	2.465	1.109	2.22	78.3	59.1
[28	-8	-67]	(2	7	0)	(9	-2	4)	2.465	1.102	2.24	88.6	56.6
[28	-8	-59]	(2	7	0)	(9	2	4)	2.465	1.102	2.24	74.8	59.9
[28	-8	61]	(2	7	0)	(-7	6	4)	2.465	1.098	2.24	75.9	59.1
[28	-8	-37]	(2	7	0)	(7	6	4)	2.465	1.098	2.24	62.3	70.0
[28	-8	25]	(2	7	0)	(-1	9	4)	2.465	1.098	2.24	58.9	76.2
[28	-8	11]	(2	7	0)	(1	9	4)	2.465	1.098	2.24	56.8	83.8
[7	-2	14]	(2	7	0)	(-6	7	4)	2.465	1.096	2.25	71.4	61.2
[7	-2	-7]	(2	7	0)	(6	7	4)	2.465	1.096	2.25	59.5	74.6
[7	-2	8]	(2	7	0)	(-2	9	4)	2.465	1.092	2.26	60.1	72.5
[7	-2	1]	(2	7	0)	(2	9	4)	2.465	1.092	2.26	55.9	87.7
[28	-8	69]	(2	7	0)	(-9	3	4)	2.465	1.092	2.26	88.0	55.9
[28	-8	-57]	(2	7	0)	(9	3	4)	2.465	1.092	2.26	71.5	60.8
[14	-4	33]	(2	7	0)	(-8	5	4)	2.465	1.092	2.26	80.3	57.0
[14	-4	-23]	(2	7	0)	(8	5	4)	2.465	1.092	2.26	65.2	65.7
[28	-8	51]	(2	7	0)	(-5	8	4)	2.465	1.087	2.27	67.1	63.4
[28	-8	-19]	(2	7	0)	(5	8	4)	2.465	1.087	2.27	56.9	79.4
[28	-8	-39]	(2	7	0)	(-3	9	-4)	2.465	1.083	2.28	61.5	69.0
[28	-8	3]	(2	7	0)	(-3	-9	4)	2.465	1.083	2.28	55.1	88.3
[28	-8	71]	(2	7	0)	(-9	4	4)	2.465	1.078	2.29	84.7	55.1
[28	-8	-55]	(2	7	0)	(9	4	4)	2.465	1.078	2.29	68.2	61.6
[28	-8	63]	(2	7	0)	(-7	7	4)	2.465	1.072	2.30	72.8	58.2
[28	-8	-35]	(2	7	0)	(7	7	4)	2.465	1.072	2.30	59.2	71.0
[14	-4	-5]	(2	7	0)	(4	9	4)	2.465	1.070	2.30	54.5	84.4
[28	-8	73]	(2	7	0)	(-9	5	4)	2.465	1.061	2.32	81.5	54.4
[28	-8	-53]	(2	7	0)	(9	5	4)	2.465	1.061	2.32	65.0	62.5
[35	-10	-7]	(2	7	0)	(1	0	5)	2.465	1.054	2.34	89.1	86.9
[28	-8	53]	(2	7	0)	(-5	9	4)	2.465	1.054	2.34	64.2	62.5
[28	-8	-17]	(2	7	0)	(5	9	4)	2.465	1.054	2.34	54.1	80.5
[35	-10	2]	(2	7	0)	(0	1	5)	2.465	1.054	2.34	86.7	89.1
[35	-10	9]	(2	7	0)	(-1	1	5)	2.465	1.052	2.34	87.6	86.0
[7	-2	-1]	(2	7	0)	(1	1	5)	2.465	1.052	2.34	85.9	87.7
[35	-10	-14]	(2	7	0)	(2	0	5)	2.465	1.049	2.35	88.3	83.7
[35	-10	16]	(2	7	0)	(-2	1	5)	2.465	1.047	2.35	88.5	82.8
[35	-10	-12]	(2	7	0)	(2	1	5)	2.465	1.047	2.35	85.0	84.6
[35	-10	11]	(2	7	0)	(-1	2	5)	2.465	1.047	2.35	84.4	85.1
[35	-10	-3]	(2	7	0)	(1	2	5)	2.465	1.047	2.35	82.7	88.6
[14	-4	35]	(2	7	0)	(-8	7	4)	2.465	1.046	2.36	74.1	55.5

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Anthophyllite (270) 481 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[14	-4	-21]	(2	7	0)	(8	7	4)	2.465	1.046	2.36	59.0	67.6
[28	-8	65]	(2	7	0)	(-7	8	4)	2.465	1.044	2.36	69.8	57.4
[28	-8	-33]	(2	7	0)	(7	8	4)	2.465	1.044	2.36	56.3	72.0
[35	-10	18]	(2	7	0)	(-2	2	5)	2.465	1.042	2.37	85.3	81.9
[7	-2	-2]	(2	7	0)	(2	2	5)	2.465	1.042	2.37	81.8	85.5
[28	-8	75]	(2	7	0)	(-9	6	4)	2.465	1.041	2.37	78.4	53.6
[28	-8	-51]	(2	7	0)	(9	6	4)	2.465	1.041	2.37	61.9	63.4
[35	-10	-21]	(2	7	0)	(3	0	5)	2.465	1.041	2.37	87.4	80.6
[35	-10	6]	(2	7	0)	(0	3	5)	2.465	1.040	2.37	80.3	87.3
[35	-10	23]	(2	7	0)	(-3	1	5)	2.465	1.039	2.37	89.4	79.8
[35	-10	-19]	(2	7	0)	(3	1	5)	2.465	1.039	2.37	84.2	81.5
[35	-10	13]	(2	7	0)	(-1	3	5)	2.465	1.038	2.37	81.2	84.2
[35	-10	-1]	(2	7	0)	(1	3	5)	2.465	1.038	2.37	79.5	89.5
[7	-2	15]	(2	7	0)	(-6	9	4)	2.465	1.036	2.38	65.6	59.5
[7	-2	-6]	(2	7	0)	(6	9	4)	2.465	1.036	2.38	53.7	76.7
[7	-2	5]	(2	7	0)	(-3	2	5)	2.465	1.034	2.38	86.2	78.9
[35	-10	-17]	(2	7	0)	(3	2	5)	2.465	1.034	2.38	81.0	82.4
[7	-2	4]	(2	7	0)	(-2	3	5)	2.465	1.033	2.39	82.1	81.1
[35	-10	-8]	(2	7	0)	(2	3	5)	2.465	1.033	2.39	78.7	86.4
[35	-10	-28]	(2	7	0)	(4	0	5)	2.465	1.030	2.39	86.6	77.6
[7	-2	-6]	(2	7	0)	(4	-1	5)	2.465	1.028	2.40	89.8	76.7
[35	-10	-26]	(2	7	0)	(4	1	5)	2.465	1.028	2.40	83.4	78.5
[7	-2	3]	(2	7	0)	(-1	4	5)	2.465	1.026	2.40	78.1	83.3
[35	-10	1]	(2	7	0)	(1	4	5)	2.465	1.026	2.40	76.4	89.5
[35	-10	27]	(2	7	0)	(-3	3	5)	2.465	1.025	2.40	83.0	78.0
[7	-2	-3]	(2	7	0)	(3	3	5)	2.465	1.025	2.40	77.9	83.3
[35	-10	32]	(2	7	0)	(-4	2	5)	2.465	1.023	2.41	87.1	75.9
[35	-10	-24]	(2	7	0)	(4	2	5)	2.465	1.023	2.41	80.3	79.3
[35	-10	22]	(2	7	0)	(-2	4	5)	2.465	1.021	2.41	79.0	80.2
[35	-10	-6]	(2	7	0)	(2	4	5)	2.465	1.021	2.41	75.6	87.3
[28	-8	49]	(2	7	0)	(9	7	-4)	2.465	1.019	2.42	58.9	64.3
[28	-8	-67]	(2	7	0)	(7	-9	4)	2.465	1.015	2.43	67.1	56.6
[28	-8	-31]	(2	7	0)	(7	9	4)	2.465	1.015	2.43	53.5	73.1
[35	-10	34]	(2	7	0)	(-4	3	5)	2.465	1.015	2.43	83.9	75.0
[35	-10	-22]	(2	7	0)	(4	3	5)	2.465	1.015	2.43	77.2	80.2
[35	-10	-37]	(2	7	0)	(5	-1	5)	2.465	1.014	2.43	88.9	73.8
[35	-10	-33]	(2	7	0)	(5	1	5)	2.465	1.014	2.43	82.7	75.5
[35	-10	29]	(2	7	0)	(-3	4	5)	2.465	1.014	2.43	79.9	77.2
[35	-10	-13]	(2	7	0)	(3	4	5)	2.465	1.014	2.43	74.8	84.2
[35	-10	17]	(2	7	0)	(-1	5	5)	2.465	1.011	2.44	75.1	82.4
[35	-10	3]	(2	7	0)	(1	5	5)	2.465	1.011	2.44	73.3	88.6
[35	-10	39]	(2	7	0)	(-5	2	5)	2.465	1.009	2.44	87.9	73.0
[35	-10	-31]	(2	7	0)	(5	2	5)	2.465	1.009	2.44	79.6	76.3
[35	-10	24]	(2	7	0)	(-2	5	5)	2.465	1.007	2.45	76.0	79.3
[35	-10	-4]	(2	7	0)	(2	5	5)	2.465	1.007	2.45	72.5	88.2
[35	-10	36]	(2	7	0)	(-4	4	5)	2.465	1.003	2.46	80.9	74.2
[7	-2	-4]	(2	7	0)	(4	4	5)	2.465	1.003	2.46	74.1	81.1
[35	-10	-41]	(2	7	0)	(-5	3	-5)	2.465	1.001	2.46	84.9	72.1

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Anthophyllite (270) 481 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[35	-10	29]	(2	7	0)	(-5	-3	5)	2.465	1.001	2.46	76.5	77.2

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Anthophyllite (650) 478 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[5	-6	-5]	(6	5	0)	(1	0	1)	2.336	5.077	0.46	78.0	79.4
[5	-6	6]	(6	5	0)	(0	1	1)	2.336	5.064	0.46	79.4	77.4
[5	-6	-11]	(6	5	0)	(1	-1	1)	2.336	4.885	0.48	88.7	67.7
[5	-6	1]	(6	5	0)	(1	1	1)	2.336	4.885	0.48	67.8	87.9
[5	-6	-10]	(6	5	0)	(2	0	1)	2.336	4.586	0.51	67.9	69.6
[5	-6	-16]	(6	5	0)	(2	-1	1)	2.336	4.442	0.53	78.4	59.2
[5	-6	-4]	(6	5	0)	(2	1	1)	2.336	4.442	0.53	58.3	81.5
[5	-6	17]	(6	5	0)	(-1	2	1)	2.336	4.416	0.53	81.9	57.7
[5	-6	7]	(6	5	0)	(1	2	1)	2.336	4.416	0.53	59.8	75.4
[5	-6	-22]	(6	5	0)	(2	-2	1)	2.336	4.081	0.57	87.9	50.7
[5	-6	2]	(6	5	0)	(2	2	1)	2.336	4.081	0.57	50.8	85.7
[5	-6	-15]	(6	5	0)	(3	0	1)	2.336	4.011	0.58	60.5	60.8
[5	-6	18]	(6	5	0)	(0	3	1)	2.336	3.954	0.59	64.4	56.2
[5	-6	-21]	(6	5	0)	(3	-1	1)	2.336	3.914	0.60	70.2	52.0
[5	-6	9]	(6	5	0)	(3	1	-1)	2.336	3.914	0.60	51.4	71.5
[5	-6	-23]	(6	5	0)	(1	-3	1)	2.336	3.867	0.60	74.7	49.4
[5	-6	-13]	(6	5	0)	(1	3	-1)	2.336	3.867	0.60	54.5	64.2
[5	-6	-3]	(6	5	0)	(3	2	1)	2.336	3.660	0.64	44.2	83.6
[5	-6	-8]	(6	5	0)	(2	3	-1)	2.336	3.636	0.64	45.9	73.4
[5	-6	-20]	(6	5	0)	(4	0	1)	2.336	3.479	0.67	55.3	53.3
[5	-6	-26]	(6	5	0)	(4	-1	1)	2.336	3.415	0.68	64.2	45.9
[5	-6	14]	(6	5	0)	(4	1	-1)	2.336	3.415	0.68	46.8	62.5
[5	-6	19]	(6	5	0)	(1	4	1)	2.336	3.357	0.70	51.2	54.7
[5	-6	-3]	(6	5	0)	(3	3	-1)	2.336	3.329	0.70	39.4	83.6
[5	-6	-8]	(6	5	0)	(4	2	1)	2.336	3.243	0.72	39.9	73.4
[5	-6	14]	(6	5	0)	(2	4	1)	2.336	3.203	0.73	43.2	62.5
[5	-6	-25]	(6	5	0)	(5	0	1)	2.336	3.030	0.77	51.6	47.0
[5	-6	2]	(6	5	0)	(4	3	-1)	2.336	3.005	0.78	34.8	85.7
[5	-6	19]	(6	5	0)	(-5	-1	1)	2.336	2.988	0.78	43.9	54.7
[5	-6	9]	(6	5	0)	(3	4	1)	2.336	2.987	0.78	36.6	71.5
[5	-6	25]	(6	5	0)	(1	5	1)	2.336	2.926	0.80	49.2	47.0
[5	-6	-13]	(6	5	0)	(5	2	1)	2.336	2.870	0.81	37.2	64.2
[5	-6	20]	(6	5	0)	(2	5	1)	2.336	2.822	0.83	41.8	53.3
[5	-6	4]	(6	5	0)	(4	4	1)	2.336	2.747	0.85	31.7	81.5
[5	-6	-7]	(6	5	0)	(5	3	1)	2.336	2.702	0.86	31.9	75.4
[5	-6	-15]	(6	5	0)	(3	5	-1)	2.336	2.671	0.87	35.4	60.8
[5	-6	-24]	(6	5	0)	(6	1	1)	2.336	2.634	0.89	42.0	48.2
[10	-12	-5]	(6	5	0)	(1	0	2)	2.336	2.614	0.89	83.9	84.7
[10	-12	-11]	(6	5	0)	(1	-1	2)	2.336	2.586	0.90	89.3	78.4
[10	-12	1]	(6	5	0)	(1	1	2)	2.336	2.586	0.90	78.5	88.9
[5	-6	18]	(6	5	0)	(6	2	-1)	2.336	2.552	0.92	35.6	56.2
[5	-6	-8]	(6	5	0)	(2	-1	2)	2.336	2.513	0.93	83.4	73.4
[5	-6	-2]	(6	5	0)	(2	1	2)	2.336	2.513	0.93	72.7	85.7
[5	-6	1]	(6	5	0)	(5	4	-1)	2.336	2.509	0.93	28.4	87.9
[10	-12	-17]	(6	5	0)	(1	-2	2)	2.336	2.509	0.93	85.4	72.4
[10	-12	7]	(6	5	0)	(1	2	2)	2.336	2.509	0.93	73.4	82.6
[5	-6	-26]	(6	5	0)	(2	6	-1)	2.336	2.501	0.93	41.2	45.9
[5	-6	-10]	(6	5	0)	(-4	-5	1)	2.336	2.495	0.94	30.3	69.6

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[5	-6	-12]	(6	5	0)	(6	3	1)	2.336	2.431	0.96	30.3	65.9
[10	-12	-15]	(6	5	0)	(3	0	2)	2.336	2.427	0.96	72.7	74.4
[10	-12	-21]	(6	5	0)	(3	-1	2)	2.336	2.405	0.97	78.0	68.6
[10	-12	9]	(6	5	0)	(3	1	-2)	2.336	2.405	0.97	67.5	80.5
[10	-12	-23]	(6	5	0)	(-1	3	-2)	2.336	2.394	0.98	80.6	66.8
[10	-12	13]	(6	5	0)	(1	3	2)	2.336	2.394	0.98	68.9	76.4
[5	-6	21]	(6	5	0)	(3	6	1)	2.336	2.394	0.98	35.1	52.0
[10	-12	-27]	(6	5	0)	(3	-2	2)	2.336	2.342	1.00	83.3	63.3
[10	-12	-3]	(6	5	0)	(3	2	2)	2.336	2.342	1.00	62.7	86.8
[5	-6	14]	(6	5	0)	(-2	3	2)	2.336	2.336	1.00	86.3	62.5
[5	-6	-4]	(6	5	0)	(2	3	-2)	2.336	2.336	1.00	63.5	81.5
[5	-6	-5]	(6	5	0)	(5	5	-1)	2.336	2.313	1.01	26.5	79.4
[5	-6	-23]	(6	5	0)	(7	2	1)	2.336	2.285	1.02	34.7	49.4
[5	-6	-13]	(6	5	0)	(4	-1	2)	2.336	2.274	1.03	73.2	64.2
[5	-6	-7]	(6	5	0)	(4	1	2)	2.336	2.274	1.03	62.9	75.4
[5	-6	12]	(6	5	0)	(0	4	2)	2.336	2.274	1.03	70.6	65.9
[5	-6	-16]	(6	5	0)	(4	6	-1)	2.336	2.265	1.03	30.0	59.2
[10	-12	-29]	(6	5	0)	(1	-4	2)	2.336	2.257	1.04	76.3	61.6
[10	-12	19]	(6	5	0)	(1	4	2)	2.336	2.257	1.04	65.1	70.5
[10	-12	-33]	(6	5	0)	(3	-3	2)	2.336	2.248	1.04	88.3	58.4
[10	-12	-3]	(6	5	0)	(3	3	-2)	2.336	2.248	1.04	58.5	86.8
[5	-6	-17]	(6	5	0)	(7	3	1)	2.336	2.197	1.06	29.5	57.7
[10	-12	-25]	(6	5	0)	(5	0	2)	2.336	2.149	1.09	63.9	65.0
[5	-6	-19]	(6	5	0)	(4	-3	2)	2.336	2.140	1.09	83.3	54.7
[5	-6	-1]	(6	5	0)	(4	3	2)	2.336	2.140	1.09	54.2	87.9
[5	-6	0]	(6	5	0)	(6	5	-1)	2.336	2.136	1.09	23.9	90.0
[10	-12	31]	(6	5	0)	(5	-1	-2)	2.336	2.134	1.09	69.0	60.0
[10	-12	19]	(6	5	0)	(5	1	-2)	2.336	2.134	1.09	59.0	70.5
[10	-12	-39]	(6	5	0)	(3	-4	2)	2.336	2.133	1.10	87.2	54.0
[10	-12	9]	(6	5	0)	(3	4	2)	2.336	2.133	1.10	55.0	80.5
[5	-6	11]	(6	5	0)	(5	6	1)	2.336	2.126	1.10	25.8	67.7
[10	-12	35]	(6	5	0)	(-1	5	2)	2.336	2.111	1.11	72.6	56.9
[10	-12	25]	(6	5	0)	(1	5	2)	2.336	2.111	1.11	61.9	65.0
[5	-6	11]	(6	5	0)	(7	4	-1)	2.336	2.090	1.12	25.3	67.7
[10	-12	37]	(6	5	0)	(-5	2	2)	2.336	2.090	1.12	74.0	55.4
[10	-12	-13]	(6	5	0)	(5	2	2)	2.336	2.090	1.12	54.5	76.4
[5	-6	20]	(6	5	0)	(-2	5	2)	2.336	2.071	1.13	78.0	53.3
[5	-6	10]	(6	5	0)	(2	5	2)	2.336	2.071	1.13	56.8	69.6
[5	-6	-22]	(6	5	0)	(4	7	-1)	2.336	2.060	1.13	30.3	50.7
[10	-12	-43]	(6	5	0)	(5	-3	2)	2.336	2.022	1.16	78.9	51.3
[10	-12	-7]	(6	5	0)	(5	3	2)	2.336	2.022	1.16	50.6	82.6
[10	-12	45]	(6	5	0)	(-3	5	2)	2.336	2.009	1.16	83.1	50.0
[10	-12	-15]	(6	5	0)	(3	5	-2)	2.336	2.009	1.16	52.2	74.4
[5	-6	-22]	(6	5	0)	(8	3	1)	2.336	1.996	1.17	29.3	50.7
[5	-6	18]	(6	5	0)	(6	-1	-2)	2.336	1.993	1.17	65.3	56.2
[5	-6	12]	(6	5	0)	(-6	-1	2)	2.336	1.993	1.17	55.8	65.9
[5	-6	-6]	(6	5	0)	(6	6	-1)	2.336	1.986	1.18	22.7	77.4
[5	-6	5]	(6	5	0)	(7	5	-1)	2.336	1.972	1.18	22.3	79.4

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[10	-12	-41]	(6	5	0)	(1	-6	2)	2.336	1.966	1.19	69.5	52.6
[10	-12	31]	(6	5	0)	(1	6	2)	2.336	1.966	1.19	59.3	60.0
[5	-6	-17]	(6	5	0)	(5	7	-1)	2.336	1.954	1.20	26.0	57.7
[10	-12	-49]	(6	5	0)	(5	-4	2)	2.336	1.937	1.21	83.4	47.6
[10	-12	1]	(6	5	0)	(5	4	-2)	2.336	1.937	1.21	47.2	88.9
[5	-6	25]	(6	5	0)	(-4	5	2)	2.336	1.931	1.21	88.0	47.0
[5	-6	5]	(6	5	0)	(4	5	2)	2.336	1.931	1.21	48.1	79.4
[5	-6	-16]	(6	5	0)	(8	4	1)	2.336	1.915	1.22	25.0	59.2
[5	-6	-24]	(6	5	0)	(6	-3	2)	2.336	1.901	1.23	75.0	48.2
[5	-6	-6]	(6	5	0)	(6	3	2)	2.336	1.901	1.23	47.5	77.4
[10	-12	51]	(6	5	0)	(-3	6	2)	2.336	1.883	1.24	79.6	46.5
[10	-12	21]	(6	5	0)	(3	6	2)	2.336	1.883	1.24	50.0	68.6
[10	-12	-35]	(6	5	0)	(7	0	2)	2.336	1.868	1.25	57.6	56.9
[10	-12	41]	(6	5	0)	(7	-1	-2)	2.336	1.858	1.26	62.3	52.6
[10	-12	29]	(6	5	0)	(-7	-1	2)	2.336	1.858	1.26	53.1	61.6
[5	-6	1]	(6	5	0)	(7	6	1)	2.336	1.852	1.26	20.6	87.9
[5	-6	-12]	(6	5	0)	(6	7	-1)	2.336	1.844	1.27	22.5	65.9
[10	-12	-5]	(6	5	0)	(-5	-5	2)	2.336	1.843	1.27	44.5	84.7
[10	-12	-47]	(6	5	0)	(7	-2	2)	2.336	1.828	1.28	67.0	48.8
[10	-12	-23]	(6	5	0)	(7	2	2)	2.336	1.828	1.28	48.9	66.8
[10	-12	47]	(6	5	0)	(-1	7	2)	2.336	1.828	1.28	66.9	48.8
[10	-12	37]	(6	5	0)	(1	7	2)	2.336	1.828	1.28	57.2	55.4
[5	-6	-10]	(6	5	0)	(8	5	1)	2.336	1.823	1.28	21.6	69.6
[5	-6	26]	(6	5	0)	(-2	7	2)	2.336	1.802	1.30	71.8	45.9
[5	-6	-16]	(6	5	0)	(2	7	-2)	2.336	1.802	1.30	52.6	59.2
[5	-6	-23]	(6	5	0)	(-5	-8	1)	2.336	1.800	1.30	26.7	49.4
[10	-12	-53]	(6	5	0)	(7	-3	2)	2.336	1.782	1.31	71.6	45.4
[10	-12	-17]	(6	5	0)	(7	3	2)	2.336	1.782	1.31	45.1	72.4
[5	-6	-21]	(6	5	0)	(9	4	1)	2.336	1.761	1.33	25.1	52.0
[10	-12	27]	(6	5	0)	(3	7	2)	2.336	1.760	1.33	48.3	63.3
[15	-18	-5]	(6	5	0)	(1	0	3)	2.336	1.752	1.33	85.9	86.4
[5	-6	2]	(6	5	0)	(0	1	3)	2.336	1.752	1.33	86.3	85.7
[5	-6	0]	(6	5	0)	(6	5	2)	2.336	1.750	1.34	41.5	90.0
[15	-18	-11]	(6	5	0)	(1	-1	3)	2.336	1.744	1.34	89.6	82.2
[15	-18	1]	(6	5	0)	(1	1	3)	2.336	1.744	1.34	82.2	89.3
[10	-12	11]	(6	5	0)	(5	6	2)	2.336	1.744	1.34	42.4	78.4
[5	-6	7]	(6	5	0)	(7	7	1)	2.336	1.736	1.35	19.9	75.4
[5	-6	-23]	(6	5	0)	(8	-1	2)	2.336	1.731	1.35	59.7	49.4
[5	-6	-17]	(6	5	0)	(8	1	2)	2.336	1.731	1.35	50.9	57.7
[15	-18	-10]	(6	5	0)	(2	0	3)	2.336	1.729	1.35	81.9	82.9
[5	-6	4]	(6	5	0)	(8	6	-1)	2.336	1.727	1.35	19.3	81.5
[10	-12	-11]	(6	5	0)	(7	4	2)	2.336	1.724	1.36	41.8	78.4
[15	-18	-16]	(6	5	0)	(2	-1	3)	2.336	1.721	1.36	85.5	78.8
[15	-18	-4]	(6	5	0)	(2	1	3)	2.336	1.721	1.36	78.2	87.2
[15	-18	17]	(6	5	0)	(-1	2	3)	2.336	1.719	1.36	86.9	78.1
[15	-18	7]	(6	5	0)	(1	2	3)	2.336	1.719	1.36	78.7	85.0
[5	-6	18]	(6	5	0)	(6	8	1)	2.336	1.713	1.36	23.0	56.2
[5	-6	24]	(6	5	0)	(0	8	2)	2.336	1.707	1.37	60.1	48.2

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U V W]	(h k 0)	(h k l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[10 -12 53]	(6 5 0)	(-1 8 2)	2.336	1.700	1.37	64.8	45.4
[10 -12 -43]	(6 5 0)	(1 8 -2)	2.336	1.700	1.37	55.6	51.3
[15 -18 -22]	(6 5 0)	(2 -2 3)	2.336	1.698	1.38	89.1	74.7
[15 -18 2]	(6 5 0)	(2 2 3)	2.336	1.698	1.38	74.8	88.6
[5 -6 -15]	(6 5 0)	(9 5 1)	2.336	1.689	1.38	21.5	60.8
[5 -6 -3]	(6 5 0)	(3 1 3)	2.336	1.685	1.39	74.4	83.6
[15 -18 23]	(6 5 0)	(-1 3 3)	2.336	1.681	1.39	83.4	74.1
[15 -18 13]	(6 5 0)	(1 3 3)	2.336	1.681	1.39	75.4	80.8
[5 -6 -11]	(6 5 0)	(8 3 2)	2.336	1.670	1.40	43.1	67.7
[15 -18 28]	(6 5 0)	(-2 3 3)	2.336	1.661	1.41	87.4	70.8
[15 -18 8]	(6 5 0)	(2 3 3)	2.336	1.661	1.41	71.5	84.3
[10 -12 5]	(6 5 0)	(7 5 -2)	2.336	1.656	1.41	39.0	84.7
[10 -12 -17]	(6 5 0)	(-5 -7 2)	2.336	1.645	1.42	40.8	72.4
[10 -12 -33]	(6 5 0)	(3 8 -2)	2.336	1.645	1.42	47.0	58.4
[15 -18 20]	(6 5 0)	(4 0 -3)	2.336	1.645	1.42	74.4	76.1
[15 -18 -26]	(6 5 0)	(4 -1 3)	2.336	1.638	1.43	78.0	72.1
[15 -18 14]	(6 5 0)	(4 1 -3)	2.336	1.638	1.43	70.8	80.1
[15 -18 29]	(6 5 0)	(-1 4 3)	2.336	1.631	1.43	80.1	70.2
[15 -18 19]	(6 5 0)	(1 4 3)	2.336	1.631	1.43	72.3	76.7
[5 -6 -2]	(6 5 0)	(8 7 -1)	2.336	1.631	1.43	18.0	85.7
[10 -12 45]	(6 5 0)	(-9 0 2)	2.336	1.622	1.44	53.3	50.0
[15 -18 -8]	(6 5 0)	(4 2 3)	2.336	1.618	1.44	67.5	84.3
[10 -12 -51]	(6 5 0)	(9 -1 2)	2.336	1.615	1.45	57.6	46.5
[10 -12 -39]	(6 5 0)	(9 1 2)	2.336	1.615	1.45	49.1	54.0
[15 -18 34]	(6 5 0)	(-2 4 3)	2.336	1.613	1.45	84.1	67.1
[15 -18 14]	(6 5 0)	(2 4 3)	2.336	1.613	1.45	68.5	80.1
[5 -6 -9]	(6 5 0)	(9 6 1)	2.336	1.612	1.45	18.8	71.5
[5 -6 24]	(6 5 0)	(6 9 1)	2.336	1.593	1.47	23.9	48.2
[15 -18 -25]	(6 5 0)	(5 0 3)	2.336	1.589	1.47	71.0	72.8
[15 -18 -38]	(6 5 0)	(4 -3 3)	2.336	1.586	1.47	85.0	64.7
[15 -18 -2]	(6 5 0)	(4 3 3)	2.336	1.586	1.47	64.3	88.6
[15 -18 -31]	(6 5 0)	(5 -1 3)	2.336	1.583	1.48	74.5	68.9
[15 -18 -19]	(6 5 0)	(5 1 3)	2.336	1.583	1.48	67.5	76.7
[10 -12 1]	(6 5 0)	(7 6 2)	2.336	1.583	1.48	36.9	88.9
[5 -6 13]	(6 5 0)	(-3 4 3)	2.336	1.583	1.48	87.9	64.2
[5 -6 3]	(6 5 0)	(3 4 3)	2.336	1.583	1.48	64.8	83.6
[10 -12 -49]	(6 5 0)	(1 9 -2)	2.336	1.583	1.48	54.3	47.6
[5 -6 10]	(6 5 0)	(0 5 3)	2.336	1.579	1.48	73.3	69.6
[5 -6 -6]	(6 5 0)	(6 7 -2)	2.336	1.578	1.48	37.8	77.4
[15 -18 35]	(6 5 0)	(-1 5 3)	2.336	1.574	1.48	77.1	66.5
[15 -18 25]	(6 5 0)	(1 5 3)	2.336	1.574	1.48	69.4	72.8
[5 -6 22]	(6 5 0)	(2 9 2)	2.336	1.566	1.49	50.1	50.7
[10 -12 -27]	(6 5 0)	(9 3 2)	2.336	1.565	1.49	41.6	63.3
[15 -18 -37]	(6 5 0)	(5 -2 3)	2.336	1.565	1.49	78.1	65.3
[15 -18 -13]	(6 5 0)	(5 2 3)	2.336	1.565	1.49	64.2	80.8
[5 -6 -5]	(6 5 0)	(8 5 2)	2.336	1.565	1.49	37.1	79.4
[15 -18 40]	(6 5 0)	(-2 5 3)	2.336	1.557	1.50	81.0	63.6
[15 -18 20]	(6 5 0)	(2 5 3)	2.336	1.557	1.50	65.7	76.1

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Anthophyllite (650) 478 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U V W]	(h k 0)	(h k l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[10 -12 -23]	(6 5 0)	(5 8 -2)	2.336	1.550	1.51	39.7	66.8
[15 -18 -44]	(6 5 0)	(4 -4 3)	2.336	1.544	1.51	88.4	61.4
[15 -18 4]	(6 5 0)	(4 4 3)	2.336	1.544	1.51	61.4	87.2
[10 -12 39]	(6 5 0)	(3 9 2)	2.336	1.538	1.52	46.1	54.0
[5 -6 8]	(6 5 0)	(8 8 1)	2.336	1.538	1.52	17.7	73.4
[15 -18 -43]	(6 5 0)	(5 -3 3)	2.336	1.536	1.52	81.6	61.9
[15 -18 -7]	(6 5 0)	(5 3 3)	2.336	1.536	1.52	61.2	85.0
[5 -6 -3]	(6 5 0)	(9 7 1)	2.336	1.533	1.52	17.0	83.6
[5 -6 15]	(6 5 0)	(-3 5 3)	2.336	1.530	1.53	84.8	60.8
[5 -6 -5]	(6 5 0)	(3 5 -3)	2.336	1.530	1.53	62.2	79.4
[10 -12 -21]	(6 5 0)	(9 4 2)	2.336	1.525	1.53	38.3	68.6
[5 -6 -12]	(6 5 0)	(6 -1 3)	2.336	1.523	1.53	71.4	65.9
[5 -6 -8]	(6 5 0)	(6 1 3)	2.336	1.523	1.53	64.5	73.4
[5 -6 19]	(6 5 0)	(7 9 1)	2.336	1.522	1.54	20.7	54.7
[15 -18 41]	(6 5 0)	(-1 6 3)	2.336	1.511	1.55	74.4	63.0
[15 -18 31]	(6 5 0)	(1 6 3)	2.336	1.511	1.55	66.9	68.9
[10 -12 7]	(6 5 0)	(7 7 2)	2.336	1.508	1.55	35.2	82.6
[5 -6 -14]	(6 5 0)	(6 -2 3)	2.336	1.507	1.55	74.9	62.5
[5 -6 6]	(6 5 0)	(6 2 -3)	2.336	1.507	1.55	61.3	77.4
[15 -18 -49]	(6 5 0)	(5 -4 3)	2.336	1.498	1.56	84.9	58.7
[15 -18 -1]	(6 5 0)	(5 4 3)	2.336	1.498	1.56	58.3	89.3
[15 -18 46]	(6 5 0)	(-2 6 3)	2.336	1.496	1.56	78.2	60.3
[15 -18 -26]	(6 5 0)	(2 6 -3)	2.336	1.496	1.56	63.3	72.1
[15 -18 50]	(6 5 0)	(-4 5 3)	2.336	1.495	1.56	88.4	58.2
[15 -18 10]	(6 5 0)	(4 5 3)	2.336	1.495	1.56	58.8	82.9
[10 -12 -15]	(6 5 0)	(9 5 2)	2.336	1.477	1.58	35.5	74.4
[15 -18 -29]	(6 5 0)	(7 1 3)	2.336	1.460	1.60	61.8	70.2
[10 -12 -29]	(6 5 0)	(5 9 -2)	2.336	1.460	1.60	38.9	61.6
[5 -6 -3]	(6 5 0)	(9 8 -1)	2.336	1.455	1.61	16.1	83.6
[15 -18 -55]	(6 5 0)	(5 -5 3)	2.336	1.453	1.61	88.1	55.7
[15 -18 -5]	(6 5 0)	(5 5 -3)	2.336	1.453	1.61	55.8	86.4
[5 -6 14]	(6 5 0)	(8 9 1)	2.336	1.450	1.61	18.0	62.5
[5 -6 -18]	(6 5 0)	(6 -4 3)	2.336	1.446	1.62	81.7	56.2
[5 -6 -2]	(6 5 0)	(6 4 3)	2.336	1.446	1.62	55.5	85.7
[15 -18 -47]	(6 5 0)	(7 -2 3)	2.336	1.446	1.62	72.0	59.7
[15 -18 -23]	(6 5 0)	(7 2 3)	2.336	1.446	1.62	58.7	74.1
[15 -18 37]	(6 5 0)	(1 7 3)	2.336	1.445	1.62	64.7	65.3
[15 -18 56]	(6 5 0)	(-4 6 3)	2.336	1.440	1.62	85.5	55.2
[15 -18 -16]	(6 5 0)	(4 6 -3)	2.336	1.440	1.62	56.6	78.8
[5 -6 -1]	(6 5 0)	(-8 -7 2)	2.336	1.438	1.62	33.0	87.9
[10 -12 -13]	(6 5 0)	(7 8 -2)	2.336	1.434	1.63	34.0	76.4
[15 -18 -52]	(6 5 0)	(2 -7 3)	2.336	1.432	1.63	75.6	57.2
[15 -18 -32]	(6 5 0)	(2 7 -3)	2.336	1.432	1.63	61.1	68.3
[10 -12 9]	(6 5 0)	(-9 -6 2)	2.336	1.425	1.64	33.2	80.5
[15 -18 -53]	(6 5 0)	(7 -3 3)	2.336	1.423	1.64	75.4	56.7
[15 -18 -17]	(6 5 0)	(7 3 3)	2.336	1.423	1.64	55.7	78.1
[5 -6 12]	(6 5 0)	(6 9 2)	2.336	1.412	1.65	35.9	65.9
[5 -6 19]	(6 5 0)	(-3 7 3)	2.336	1.411	1.66	79.2	54.7

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[5	-6	9]	(6	5	0)	(3	7	3)	2.336	1.411	1.66	57.8	71.5
[5	-6	-20]	(6	5	0)	(6	-5	3)	2.336	1.406	1.66	84.9	53.3
[5	-6	0]	(6	5	0)	(6	5	3)	2.336	1.406	1.66	53.0	90.0
[15	-18	61]	(6	5	0)	(-5	6	3)	2.336	1.403	1.67	88.9	52.9
[15	-18	11]	(6	5	0)	(5	6	3)	2.336	1.403	1.67	53.6	82.2
[15	-18	-40]	(6	5	0)	(8	0	3)	2.336	1.401	1.67	62.7	63.6
[15	-18	46]	(6	5	0)	(8	-1	-3)	2.336	1.396	1.67	66.0	60.3
[15	-18	34]	(6	5	0)	(-8	-1	3)	2.336	1.396	1.67	59.4	67.1
[15	-18	-59]	(6	5	0)	(7	-4	3)	2.336	1.392	1.68	78.7	53.8
[15	-18	11]	(6	5	0)	(7	4	-3)	2.336	1.392	1.68	53.0	82.2
[15	-18	-52]	(6	5	0)	(8	-2	3)	2.336	1.384	1.69	69.4	57.2
[15	-18	-28]	(6	5	0)	(8	2	3)	2.336	1.384	1.69	56.3	70.8
[15	-18	62]	(6	5	0)	(-4	7	3)	2.336	1.383	1.69	82.7	52.4
[15	-18	-22]	(6	5	0)	(4	7	-3)	2.336	1.383	1.69	54.6	74.7
[5	-6	-9]	(6	5	0)	(-9	-9	1)	2.336	1.380	1.69	16.0	71.5
[15	-18	53]	(6	5	0)	(-1	8	3)	2.336	1.379	1.69	69.8	56.7
[15	-18	-43]	(6	5	0)	(1	8	-3)	2.336	1.379	1.69	62.7	61.9
[10	-12	-3]	(6	5	0)	(9	7	2)	2.336	1.370	1.71	31.3	86.8
[15	-18	58]	(6	5	0)	(-2	8	3)	2.336	1.368	1.71	73.3	54.2
[15	-18	38]	(6	5	0)	(2	8	3)	2.336	1.368	1.71	59.3	64.7
[15	-18	-58]	(6	5	0)	(8	-3	3)	2.336	1.363	1.71	72.7	54.2
[15	-18	-22]	(6	5	0)	(8	3	3)	2.336	1.363	1.71	53.4	74.7
[10	-12	19]	(6	5	0)	(7	9	2)	2.336	1.362	1.72	33.2	70.5
[15	-18	67]	(6	5	0)	(-5	7	3)	2.336	1.350	1.73	86.1	50.2
[15	-18	17]	(6	5	0)	(5	7	3)	2.336	1.350	1.73	51.6	78.1
[5	-6	21]	(6	5	0)	(-3	8	3)	2.336	1.350	1.73	76.8	52.0
[5	-6	11]	(6	5	0)	(3	8	3)	2.336	1.350	1.73	56.0	67.7
[15	-18	-64]	(6	5	0)	(8	-4	3)	2.336	1.337	1.75	75.9	51.5
[15	-18	-16]	(6	5	0)	(8	4	3)	2.336	1.337	1.75	50.7	78.8
[5	-6	-17]	(6	5	0)	(9	-1	3)	2.336	1.333	1.75	63.7	57.7
[5	-6	-13]	(6	5	0)	(9	1	3)	2.336	1.333	1.75	57.3	64.2
[15	-18	68]	(6	5	0)	(-4	8	3)	2.336	1.325	1.76	80.2	49.8
[15	-18	28]	(6	5	0)	(4	8	3)	2.336	1.325	1.76	52.9	70.8
[5	-6	-19]	(6	5	0)	(9	-2	3)	2.336	1.322	1.77	67.0	54.7
[5	-6	11]	(6	5	0)	(9	2	-3)	2.336	1.322	1.77	54.3	67.7
[20	-24	-5]	(6	5	0)	(1	0	4)	2.336	1.317	1.77	86.9	87.3
[15	-18	-71]	(6	5	0)	(7	-6	3)	2.336	1.315	1.78	84.9	48.6
[15	-18	1]	(6	5	0)	(7	6	3)	2.336	1.315	1.78	48.3	89.3
[15	-18	59]	(6	5	0)	(-1	9	3)	2.336	1.315	1.78	67.8	53.8
[15	-18	-49]	(6	5	0)	(1	9	-3)	2.336	1.315	1.78	61.0	58.7
[10	-12	3]	(6	5	0)	(9	8	2)	2.336	1.313	1.78	29.9	86.8
[20	-24	-11]	(6	5	0)	(1	-1	4)	2.336	1.313	1.78	89.7	84.2
[20	-24	1]	(6	5	0)	(1	1	4)	2.336	1.313	1.78	84.2	89.5
[5	-6	24]	(6	5	0)	(-6	7	3)	2.336	1.312	1.78	89.3	48.2
[5	-6	-4]	(6	5	0)	(6	7	-3)	2.336	1.312	1.78	48.9	81.5
[5	-6	-7]	(6	5	0)	(-8	-9	2)	2.336	1.309	1.78	30.8	75.4
[5	-6	-3]	(6	5	0)	(0	2	-4)	2.336	1.306	1.79	84.5	83.6
[15	-18	64]	(6	5	0)	(-2	9	3)	2.336	1.305	1.79	71.3	51.5

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Anthophyllite (650) 478 Zone Axes

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Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U V W]	(h k 0)	(h k l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[15 -18 44]	(6 5 0)	(2 9 3)	2.336	1.305	1.79	57.7	61.4
[15 -18 -70]	(6 5 0)	(8 -5 3)	2.336	1.304	1.79	79.1	49.0
[15 -18 -10]	(6 5 0)	(8 5 3)	2.336	1.304	1.79	48.3	82.9
[5 -6 -4]	(6 5 0)	(2 -1 4)	2.336	1.303	1.79	86.6	81.5
[5 -6 -1]	(6 5 0)	(2 1 4)	2.336	1.303	1.79	81.1	87.9
[20 -24 17]	(6 5 0)	(-1 2 4)	2.336	1.303	1.79	87.6	81.0
[20 -24 7]	(6 5 0)	(1 2 4)	2.336	1.303	1.79	81.5	86.3
[15 -18 73]	(6 5 0)	(-5 8 3)	2.336	1.296	1.80	83.5	47.8
[15 -18 -23]	(6 5 0)	(5 8 -3)	2.336	1.296	1.80	50.0	74.1
[20 -24 -15]	(6 5 0)	(3 0 4)	2.336	1.291	1.81	80.9	82.0
[20 -24 -21]	(6 5 0)	(3 -1 4)	2.336	1.287	1.81	83.6	78.9
[20 -24 -9]	(6 5 0)	(3 1 4)	2.336	1.287	1.81	78.2	85.2
[20 -24 23]	(6 5 0)	(-1 3 4)	2.336	1.286	1.82	85.0	77.9
[20 -24 13]	(6 5 0)	(1 3 4)	2.336	1.286	1.82	78.9	83.1
[5 -6 -23]	(6 5 0)	(9 -4 3)	2.336	1.281	1.82	73.4	49.4
[5 -6 -7]	(6 5 0)	(9 4 3)	2.336	1.281	1.82	48.8	75.4
[20 -24 -27]	(6 5 0)	(3 -2 4)	2.336	1.278	1.83	86.3	75.9
[20 -24 -3]	(6 5 0)	(3 2 4)	2.336	1.278	1.83	75.5	88.4
[5 -6 7]	(6 5 0)	(-2 3 4)	2.336	1.277	1.83	88.0	75.4
[5 -6 2]	(6 5 0)	(2 3 4)	2.336	1.277	1.83	75.9	85.7
[15 -18 -77]	(6 5 0)	(7 -7 3)	2.336	1.271	1.84	87.7	46.3
[15 -18 7]	(6 5 0)	(7 7 3)	2.336	1.271	1.84	46.5	85.0
[15 -18 4]	(6 5 0)	(-8 -6 3)	2.336	1.268	1.84	46.2	87.2
[15 -18 74]	(6 5 0)	(-4 9 3)	2.336	1.268	1.84	78.0	47.4
[15 -18 34]	(6 5 0)	(4 9 3)	2.336	1.268	1.84	51.4	67.1
[10 -12 -13]	(6 5 0)	(4 -1 4)	2.336	1.266	1.85	80.7	76.4
[10 -12 -7]	(6 5 0)	(4 1 4)	2.336	1.266	1.85	75.3	82.6
[5 -6 26]	(6 5 0)	(-6 8 3)	2.336	1.262	1.85	86.7	45.9
[5 -6 6]	(6 5 0)	(6 8 3)	2.336	1.262	1.85	47.3	77.4
[20 -24 -33]	(6 5 0)	(3 -3 4)	2.336	1.262	1.85	89.0	72.9
[20 -24 3]	(6 5 0)	(3 3 4)	2.336	1.262	1.85	73.0	88.4
[10 -12 9]	(6 5 0)	(9 9 2)	2.336	1.257	1.86	28.9	80.5
[20 -24 -25]	(6 5 0)	(5 0 4)	2.336	1.243	1.88	75.3	76.9
[15 -18 79]	(6 5 0)	(-5 9 3)	2.336	1.242	1.88	81.2	45.6
[15 -18 -29]	(6 5 0)	(5 9 -3)	2.336	1.242	1.88	48.6	70.2
[10 -12 19]	(6 5 0)	(-4 3 4)	2.336	1.242	1.88	86.1	70.5
[10 -12 1]	(6 5 0)	(4 3 -4)	2.336	1.242	1.88	70.2	88.9
[20 -24 -31]	(6 5 0)	(5 -1 4)	2.336	1.240	1.88	77.9	73.9
[20 -24 -19]	(6 5 0)	(5 1 4)	2.336	1.240	1.88	72.6	80.0
[20 -24 39]	(6 5 0)	(-3 4 4)	2.336	1.240	1.88	88.4	70.0
[20 -24 9]	(6 5 0)	(3 4 4)	2.336	1.240	1.88	70.5	85.2
[20 -24 35]	(6 5 0)	(-1 5 4)	2.336	1.236	1.89	79.9	71.9
[20 -24 25]	(6 5 0)	(1 5 4)	2.336	1.236	1.89	74.0	76.9
[20 -24 -37]	(6 5 0)	(5 -2 4)	2.336	1.231	1.90	80.7	71.0
[20 -24 -13]	(6 5 0)	(5 2 4)	2.336	1.231	1.90	70.0	83.1
[15 -18 -2]	(6 5 0)	(8 7 -3)	2.336	1.228	1.90	44.3	88.6
[5 -6 -10]	(6 5 0)	(2 -5 4)	2.336	1.228	1.90	82.9	69.6
[5 -6 5]	(6 5 0)	(2 5 4)	2.336	1.228	1.90	71.1	79.4

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Anthophyllite (650) 478 Zone Axes

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Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U V W]	(h k 0)	(h k l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[15 -18 -13]	(6 5 0)	(7 8 -3)	2.336	1.226	1.91	44.9	80.8
[20 -24 -7]	(6 5 0)	(5 3 4)	2.336	1.217	1.92	67.5	86.3
[20 -24 45]	(6 5 0)	(-3 5 4)	2.336	1.214	1.92	85.9	67.3
[20 -24 15]	(6 5 0)	(3 5 4)	2.336	1.214	1.92	68.3	82.0
[5 -6 -9]	(6 5 0)	(6 -1 4)	2.336	1.211	1.93	75.3	71.5
[5 -6 -6]	(6 5 0)	(6 1 4)	2.336	1.211	1.93	70.0	77.4
[20 -24 41]	(6 5 0)	(-1 6 4)	2.336	1.205	1.94	77.6	69.1
[20 -24 31]	(6 5 0)	(1 6 4)	2.336	1.205	1.94	71.8	73.9
[20 -24 49]	(6 5 0)	(-5 4 4)	2.336	1.198	1.95	86.0	65.5
[20 -24 -1]	(6 5 0)	(5 4 4)	2.336	1.198	1.95	65.2	89.5
[10 -12 25]	(6 5 0)	(-4 5 4)	2.336	1.196	1.95	88.7	65.0
[10 -12 5]	(6 5 0)	(4 5 4)	2.336	1.196	1.95	65.5	84.7
[5 -6 -12]	(6 5 0)	(6 -3 4)	2.336	1.189	1.96	80.7	65.9
[5 -6 -3]	(6 5 0)	(6 3 4)	2.336	1.189	1.96	65.0	83.6
[15 -18 8]	(6 5 0)	(8 8 3)	2.336	1.187	1.97	42.7	84.3
[5 -6 -1]	(6 5 0)	(9 7 3)	2.336	1.185	1.97	42.3	87.9
[20 -24 51]	(6 5 0)	(-3 6 4)	2.336	1.185	1.97	83.5	64.6
[20 -24 21]	(6 5 0)	(3 6 4)	2.336	1.185	1.97	66.1	78.9
[20 -24 -35]	(6 5 0)	(7 0 4)	2.336	1.181	1.98	70.2	71.9
[15 -18 19]	(6 5 0)	(7 9 3)	2.336	1.179	1.98	43.5	76.7
[20 -24 -41]	(6 5 0)	(7 -1 4)	2.336	1.178	1.98	72.9	69.1
[20 -24 -29]	(6 5 0)	(7 1 4)	2.336	1.178	1.98	67.6	74.9
[20 -24 -55]	(6 5 0)	(5 -5 4)	2.336	1.174	1.99	88.5	62.9
[20 -24 -5]	(6 5 0)	(5 5 -4)	2.336	1.174	1.99	63.0	87.3
[20 -24 -47]	(6 5 0)	(7 -2 4)	2.336	1.171	2.00	75.5	66.4
[20 -24 -23]	(6 5 0)	(7 2 4)	2.336	1.171	2.00	65.1	77.9
[20 -24 37]	(6 5 0)	(1 7 4)	2.336	1.171	2.00	69.7	71.0
[20 -24 -53]	(6 5 0)	(7 -3 4)	2.336	1.158	2.02	78.1	63.7
[20 -24 -17]	(6 5 0)	(7 3 4)	2.336	1.158	2.02	62.7	81.0
[20 -24 57]	(6 5 0)	(-3 7 4)	2.336	1.152	2.03	81.2	62.0
[20 -24 27]	(6 5 0)	(3 7 4)	2.336	1.152	2.03	64.2	75.9
[5 -6 -15]	(6 5 0)	(6 -5 4)	2.336	1.149	2.03	85.8	60.8
[5 -6 0]	(6 5 0)	(6 5 4)	2.336	1.149	2.03	60.5	90.0
[5 -6 1]	(6 5 0)	(9 8 3)	2.336	1.148	2.04	40.7	87.9
[20 -24 61]	(6 5 0)	(-5 6 4)	2.336	1.148	2.04	89.1	60.4
[20 -24 11]	(6 5 0)	(5 6 4)	2.336	1.148	2.04	60.9	84.2
[15 -18 14]	(6 5 0)	(8 9 3)	2.336	1.145	2.04	41.3	80.1
[10 -12 -23]	(6 5 0)	(8 -1 4)	2.336	1.144	2.04	70.5	66.8
[10 -12 -17]	(6 5 0)	(8 1 4)	2.336	1.144	2.04	65.4	72.4
[20 -24 -59]	(6 5 0)	(7 -4 4)	2.336	1.142	2.05	80.7	61.2
[20 -24 -11]	(6 5 0)	(7 4 4)	2.336	1.142	2.05	60.4	84.2
[10 -12 -31]	(6 5 0)	(-4 7 -4)	2.336	1.137	2.05	84.0	60.0
[10 -12 -11]	(6 5 0)	(4 7 -4)	2.336	1.137	2.05	61.5	78.4
[20 -24 43]	(6 5 0)	(1 8 4)	2.336	1.135	2.06	67.8	68.2
[10 -12 -29]	(6 5 0)	(8 -3 4)	2.336	1.126	2.08	75.8	61.6
[10 -12 -11]	(6 5 0)	(8 3 4)	2.336	1.126	2.08	60.5	78.4
[20 -24 65]	(6 5 0)	(7 -5 -4)	2.336	1.121	2.08	83.3	58.8
[20 -24 5]	(6 5 0)	(7 5 -4)	2.336	1.121	2.08	58.3	87.3

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Anthophyllite (650) 478 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U V W]	(h k 0)	(h k l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[20 -24 67]	(6 5 0)	(-5 7 4)	2.336	1.118	2.09	86.8	58.0
[20 -24 17]	(6 5 0)	(5 7 4)	2.336	1.118	2.09	59.0	81.0
[20 -24 63]	(6 5 0)	(-3 8 4)	2.336	1.118	2.09	79.1	59.6
[20 -24 -33]	(6 5 0)	(3 8 -4)	2.336	1.118	2.09	62.4	72.9
[20 -24 -45]	(6 5 0)	(9 0 4)	2.336	1.111	2.10	65.8	67.3
[20 -24 -39]	(6 5 0)	(9 1 4)	2.336	1.109	2.11	63.3	70.0
[20 -24 -57]	(6 5 0)	(9 -2 4)	2.336	1.102	2.12	71.0	62.0
[20 -24 -33]	(6 5 0)	(9 2 4)	2.336	1.102	2.12	60.9	72.9
[20 -24 -71]	(6 5 0)	(7 -6 4)	2.336	1.098	2.13	85.7	56.5
[20 -24 1]	(6 5 0)	(7 6 4)	2.336	1.098	2.13	56.3	89.5
[20 -24 59]	(6 5 0)	(-1 9 4)	2.336	1.098	2.13	71.6	61.2
[20 -24 -49]	(6 5 0)	(1 9 -4)	2.336	1.098	2.13	66.1	65.5
[5 -6 -18]	(6 5 0)	(6 -7 4)	2.336	1.096	2.13	89.4	56.2
[5 -6 -3]	(6 5 0)	(6 7 -4)	2.336	1.096	2.13	56.7	83.6
[5 -6 16]	(6 5 0)	(-2 9 4)	2.336	1.092	2.14	74.4	59.2
[5 -6 11]	(6 5 0)	(2 9 4)	2.336	1.092	2.14	63.4	67.7
[20 -24 63]	(6 5 0)	(9 -3 -4)	2.336	1.092	2.14	73.6	59.6
[20 -24 27]	(6 5 0)	(-9 -3 4)	2.336	1.092	2.14	58.5	75.9
[10 -12 -35]	(6 5 0)	(8 -5 4)	2.336	1.092	2.14	80.9	56.9
[10 -12 -5]	(6 5 0)	(8 5 4)	2.336	1.092	2.14	56.2	84.7
[20 -24 73]	(6 5 0)	(-5 8 4)	2.336	1.087	2.15	84.6	55.8
[20 -24 23]	(6 5 0)	(5 8 4)	2.336	1.087	2.15	57.3	77.9
[20 -24 69]	(6 5 0)	(-3 9 4)	2.336	1.083	2.16	77.2	57.3
[20 -24 -39]	(6 5 0)	(3 9 -4)	2.336	1.083	2.16	60.8	70.0
[20 -24 69]	(6 5 0)	(-9 4 4)	2.336	1.078	2.17	76.1	57.3
[20 -24 -21]	(6 5 0)	(9 4 4)	2.336	1.078	2.17	56.3	78.9
[20 -24 -77]	(6 5 0)	(7 -7 4)	2.336	1.072	2.18	88.1	54.4
[20 -24 7]	(6 5 0)	(7 7 4)	2.336	1.072	2.18	54.5	86.3
[10 -12 37]	(6 5 0)	(-4 9 4)	2.336	1.070	2.18	79.9	55.4
[10 -12 17]	(6 5 0)	(4 9 4)	2.336	1.070	2.18	58.2	72.4
[20 -24 -75]	(6 5 0)	(9 -5 4)	2.336	1.061	2.20	78.6	55.1
[20 -24 -15]	(6 5 0)	(9 5 4)	2.336	1.061	2.20	54.2	82.0
[5 -6 -1]	(6 5 0)	(1 0 5)	2.336	1.054	2.22	87.5	87.9
[20 -24 79]	(6 5 0)	(-5 9 4)	2.336	1.054	2.22	82.5	53.7
[20 -24 -29]	(6 5 0)	(5 9 -4)	2.336	1.054	2.22	55.8	74.9
[25 -30 -6]	(6 5 0)	(0 1 -5)	2.336	1.054	2.22	87.8	87.4
[25 -30 -11]	(6 5 0)	(1 -1 5)	2.336	1.052	2.22	89.7	85.3
[25 -30 1]	(6 5 0)	(1 1 5)	2.336	1.052	2.22	85.3	89.6
[5 -6 -2]	(6 5 0)	(2 0 5)	2.336	1.049	2.23	85.1	85.7
[25 -30 -16]	(6 5 0)	(2 -1 5)	2.336	1.047	2.23	87.3	83.2
[25 -30 -4]	(6 5 0)	(2 1 5)	2.336	1.047	2.23	82.9	88.3
[25 -30 17]	(6 5 0)	(-1 2 5)	2.336	1.047	2.23	88.1	82.8
[25 -30 7]	(6 5 0)	(1 2 5)	2.336	1.047	2.23	83.2	87.0
[10 -12 -41]	(6 5 0)	(8 -7 4)	2.336	1.046	2.23	85.7	52.6
[10 -12 -1]	(6 5 0)	(8 7 -4)	2.336	1.046	2.23	52.4	88.9
[20 -24 -83]	(6 5 0)	(7 -8 4)	2.336	1.044	2.24	89.7	52.3
[20 -24 13]	(6 5 0)	(7 8 4)	2.336	1.044	2.24	52.8	83.1
[25 -30 -22]	(6 5 0)	(2 -2 5)	2.336	1.042	2.24	89.5	80.7

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U V W]	(h k 0)	(h k l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[25 -30 2]	(6 5 0)	(2 2 5)	2.336	1.042	2.24	80.7	89.1
[20 -24 -81]	(6 5 0)	(9 -6 4)	2.336	1.041	2.24	81.0	53.0
[20 -24 -9]	(6 5 0)	(9 6 4)	2.336	1.041	2.24	52.3	85.2
[5 -6 -3]	(6 5 0)	(3 0 5)	2.336	1.041	2.24	82.7	83.6
[25 -30 18]	(6 5 0)	(0 3 5)	2.336	1.040	2.25	83.5	82.4
[25 -30 -21]	(6 5 0)	(3 -1 5)	2.336	1.039	2.25	84.8	81.1
[25 -30 -9]	(6 5 0)	(3 1 5)	2.336	1.039	2.25	80.5	86.2
[25 -30 23]	(6 5 0)	(-1 3 5)	2.336	1.038	2.25	85.9	80.3
[25 -30 -13]	(6 5 0)	(1 3 -5)	2.336	1.038	2.25	81.0	84.5
[5 -6 -21]	(6 5 0)	(6 -9 4)	2.336	1.036	2.26	85.1	52.0
[5 -6 6]	(6 5 0)	(6 9 4)	2.336	1.036	2.26	53.5	77.4
[25 -30 -27]	(6 5 0)	(3 -2 5)	2.336	1.034	2.26	87.0	78.6
[25 -30 -3]	(6 5 0)	(3 2 5)	2.336	1.034	2.26	78.3	88.7
[25 -30 28]	(6 5 0)	(-2 3 5)	2.336	1.033	2.26	88.4	78.2
[25 -30 8]	(6 5 0)	(2 3 5)	2.336	1.033	2.26	78.6	86.6
[5 -6 -4]	(6 5 0)	(4 0 5)	2.336	1.030	2.27	80.3	81.5
[25 -30 -26]	(6 5 0)	(4 -1 5)	2.336	1.028	2.27	82.5	79.0
[25 -30 -14]	(6 5 0)	(4 1 5)	2.336	1.028	2.27	78.1	84.0
[25 -30 29]	(6 5 0)	(-1 4 5)	2.336	1.026	2.28	83.8	77.8
[25 -30 19]	(6 5 0)	(1 4 5)	2.336	1.026	2.28	78.9	81.9
[25 -30 -33]	(6 5 0)	(3 -3 5)	2.336	1.025	2.28	89.2	76.2
[25 -30 3]	(6 5 0)	(3 3 5)	2.336	1.025	2.28	76.2	88.7
[25 -30 -32]	(6 5 0)	(4 -2 5)	2.336	1.023	2.28	84.7	76.6
[25 -30 -8]	(6 5 0)	(4 2 5)	2.336	1.023	2.28	76.0	86.6
[25 -30 34]	(6 5 0)	(-2 4 5)	2.336	1.021	2.29	86.3	75.8
[25 -30 14]	(6 5 0)	(2 4 5)	2.336	1.021	2.29	76.5	84.0
[20 -24 -87]	(6 5 0)	(9 -7 4)	2.336	1.019	2.29	83.4	51.0
[20 -24 -3]	(6 5 0)	(9 7 4)	2.336	1.019	2.29	50.5	88.4
[20 -24 89]	(6 5 0)	(-7 9 4)	2.336	1.015	2.30	87.6	50.3
[20 -24 19]	(6 5 0)	(7 9 4)	2.336	1.015	2.30	51.4	80.0
[25 -30 -38]	(6 5 0)	(4 -3 5)	2.336	1.015	2.30	86.8	74.2
[25 -30 -2]	(6 5 0)	(4 3 5)	2.336	1.015	2.30	73.9	89.1
[25 -30 -31]	(6 5 0)	(5 -1 5)	2.336	1.014	2.30	80.2	77.0
[25 -30 -19]	(6 5 0)	(5 1 5)	2.336	1.014	2.30	75.8	81.9
[25 -30 39]	(6 5 0)	(-3 4 5)	2.336	1.014	2.30	88.7	73.8
[25 -30 9]	(6 5 0)	(3 4 5)	2.336	1.014	2.30	74.2	86.2
[5 -6 7]	(6 5 0)	(-1 5 5)	2.336	1.011	2.31	81.8	75.4
[5 -6 5]	(6 5 0)	(1 5 5)	2.336	1.011	2.31	77.0	79.4
[25 -30 -37]	(6 5 0)	(5 -2 5)	2.336	1.009	2.32	82.4	74.6
[25 -30 -13]	(6 5 0)	(5 2 5)	2.336	1.009	2.32	73.7	84.5
[5 -6 8]	(6 5 0)	(-2 5 5)	2.336	1.007	2.32	84.2	73.4
[5 -6 4]	(6 5 0)	(2 5 5)	2.336	1.007	2.32	74.6	81.5
[25 -30 -44]	(6 5 0)	(4 -4 5)	2.336	1.003	2.33	89.0	71.9
[25 -30 4]	(6 5 0)	(4 4 5)	2.336	1.003	2.33	71.9	88.3
[25 -30 -43]	(6 5 0)	(5 -3 5)	2.336	1.001	2.33	84.5	72.2
[25 -30 -7]	(6 5 0)	(5 3 5)	2.336	1.001	2.33	71.7	87.0

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Anthophyllite (810) 477 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[1	-8	-1]	(8	1	0)	(1	0	1)	2.293	5.077	0.45	74.2	87.9
[1	-8	8]	(8	1	0)	(0	1	1)	2.293	5.064	0.45	87.9	73.7
[1	-8	-9]	(8	1	0)	(1	-1	1)	2.293	4.885	0.47	76.9	71.8
[1	-8	-7]	(8	1	0)	(-1	-1	1)	2.293	4.885	0.47	72.7	75.6
[1	-8	-2]	(8	1	0)	(2	0	1)	2.293	4.586	0.50	60.6	85.8
[1	-8	-10]	(8	1	0)	(2	-1	1)	2.293	4.442	0.52	63.6	69.9
[1	-8	6]	(8	1	0)	(2	1	1)	2.293	4.442	0.52	59.5	77.6
[1	-8	-17]	(8	1	0)	(1	-2	1)	2.293	4.416	0.52	80.0	58.1
[1	-8	15]	(8	1	0)	(1	2	1)	2.293	4.416	0.52	72.5	61.3
[1	-8	-18]	(8	1	0)	(2	-2	1)	2.293	4.081	0.56	67.7	56.6
[1	-8	14]	(8	1	0)	(2	2	1)	2.293	4.081	0.56	60.3	62.9
[1	-8	-3]	(8	1	0)	(3	0	1)	2.293	4.011	0.57	49.8	83.7
[1	-8	24]	(8	1	0)	(0	3	1)	2.293	3.954	0.58	85.1	48.7
[1	-8	-11]	(8	1	0)	(3	-1	1)	2.293	3.914	0.59	53.0	68.1
[1	-8	5]	(8	1	0)	(3	1	1)	2.293	3.914	0.59	48.9	79.6
[1	-8	-25]	(8	1	0)	(1	-3	1)	2.293	3.867	0.59	82.9	47.6
[1	-8	23]	(8	1	0)	(1	3	1)	2.293	3.867	0.59	73.1	49.9
[1	-8	-19]	(8	1	0)	(3	-2	1)	2.293	3.660	0.63	57.6	55.2
[1	-8	13]	(8	1	0)	(3	2	1)	2.293	3.660	0.63	50.1	64.6
[1	-8	-26]	(8	1	0)	(2	-3	1)	2.293	3.636	0.63	71.8	46.4
[1	-8	22]	(8	1	0)	(2	3	1)	2.293	3.636	0.63	62.1	51.2
[1	-8	-4]	(8	1	0)	(4	0	1)	2.293	3.479	0.66	41.8	81.7
[1	-8	-12]	(8	1	0)	(4	-1	1)	2.293	3.415	0.67	44.9	66.3
[1	-8	4]	(8	1	0)	(4	1	1)	2.293	3.415	0.67	40.8	81.7
[1	-8	-27]	(8	1	0)	(3	-3	1)	2.293	3.329	0.69	62.4	45.4
[1	-8	21]	(8	1	0)	(3	3	1)	2.293	3.329	0.69	52.6	52.5
[1	-8	-20]	(8	1	0)	(4	-2	1)	2.293	3.243	0.71	49.5	53.8
[1	-8	12]	(8	1	0)	(4	2	1)	2.293	3.243	0.71	42.1	66.3
[1	-8	-5]	(8	1	0)	(5	0	1)	2.293	3.030	0.76	35.7	79.6
[1	-8	20]	(8	1	0)	(4	3	1)	2.293	3.005	0.76	44.8	53.8
[1	-8	-13]	(8	1	0)	(5	-1	1)	2.293	2.988	0.77	38.8	64.6
[1	-8	3]	(8	1	0)	(5	1	1)	2.293	2.988	0.77	34.7	83.7
[1	-8	-21]	(8	1	0)	(5	-2	1)	2.293	2.870	0.80	43.3	52.5
[1	-8	11]	(8	1	0)	(5	2	1)	2.293	2.870	0.80	35.9	68.1
[1	-8	19]	(8	1	0)	(5	3	1)	2.293	2.702	0.85	38.5	55.2
[1	-8	-6]	(8	1	0)	(6	0	1)	2.293	2.663	0.86	31.1	77.6
[1	-8	0]	(8	1	0)	(0	0	2)	2.293	2.640	0.87	90.0	90.0
[1	-8	14]	(8	1	0)	(6	-1	-1)	2.293	2.634	0.87	34.1	62.9
[1	-8	2]	(8	1	0)	(6	1	1)	2.293	2.634	0.87	30.0	85.8
[2	-16	-1]	(8	1	0)	(1	0	2)	2.293	2.614	0.88	81.9	89.0
[2	-16	-9]	(8	1	0)	(1	-1	2)	2.293	2.586	0.89	83.1	80.7
[2	-16	7]	(8	1	0)	(1	1	2)	2.293	2.586	0.89	81.0	82.7
[1	-8	-22]	(8	1	0)	(6	-2	1)	2.293	2.552	0.90	38.3	51.2
[1	-8	10]	(8	1	0)	(6	2	1)	2.293	2.552	0.90	31.0	69.9
[1	-8	-5]	(8	1	0)	(2	-1	2)	2.293	2.513	0.91	75.4	79.6
[1	-8	3]	(8	1	0)	(2	1	2)	2.293	2.513	0.91	73.3	83.7
[1	-8	27]	(8	1	0)	(5	4	1)	2.293	2.509	0.91	41.9	45.4
[2	-16	-17]	(8	1	0)	(1	-2	2)	2.293	2.509	0.91	84.3	72.7

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Anthophyllite (810) 477 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[2	-16	15]	(8	1	0)	(1	2	2)	2.293	2.509	0.91	80.2	74.7
[1	-8	18]	(8	1	0)	(6	3	1)	2.293	2.431	0.94	33.5	56.6
[2	-16	-3]	(8	1	0)	(3	0	2)	2.293	2.427	0.94	67.0	86.9
[2	-16	-11]	(8	1	0)	(3	-1	2)	2.293	2.405	0.95	68.3	78.6
[2	-16	5]	(8	1	0)	(3	1	2)	2.293	2.405	0.95	66.2	84.8
[2	-16	-25]	(8	1	0)	(1	-3	2)	2.293	2.394	0.96	85.6	65.4
[2	-16	23]	(8	1	0)	(1	3	2)	2.293	2.394	0.96	79.6	67.2
[1	-8	-7]	(8	1	0)	(7	0	1)	2.293	2.363	0.97	27.5	75.6
[1	-8	-15]	(8	1	0)	(7	-1	1)	2.293	2.343	0.98	30.4	61.3
[1	-8	1]	(8	1	0)	(7	1	1)	2.293	2.343	0.98	26.4	87.9
[2	-16	-19]	(8	1	0)	(3	-2	2)	2.293	2.342	0.98	69.9	70.8
[2	-16	13]	(8	1	0)	(3	2	2)	2.293	2.342	0.98	65.8	76.6
[1	-8	-13]	(8	1	0)	(2	-3	2)	2.293	2.336	0.98	78.4	64.6
[1	-8	11]	(8	1	0)	(2	3	2)	2.293	2.336	0.98	72.5	68.1
[1	-8	-23]	(8	1	0)	(7	-2	1)	2.293	2.285	1.00	34.4	49.9
[1	-8	9]	(8	1	0)	(7	2	1)	2.293	2.285	1.00	27.1	71.8
[1	-8	-6]	(8	1	0)	(4	-1	2)	2.293	2.274	1.01	61.9	77.6
[1	-8	2]	(8	1	0)	(4	1	2)	2.293	2.274	1.01	59.7	85.8
[1	-8	16]	(8	1	0)	(0	4	2)	2.293	2.274	1.01	86.3	59.7
[2	-16	-33]	(8	1	0)	(1	-4	2)	2.293	2.257	1.02	86.8	58.9
[2	-16	31]	(8	1	0)	(1	4	2)	2.293	2.257	1.02	79.3	60.5
[2	-16	-27]	(8	1	0)	(3	-3	2)	2.293	2.248	1.02	71.7	63.7
[2	-16	21]	(8	1	0)	(3	3	2)	2.293	2.248	1.02	65.8	69.0
[1	-8	17]	(8	1	0)	(7	3	1)	2.293	2.197	1.04	29.3	58.1
[2	-16	-5]	(8	1	0)	(5	0	2)	2.293	2.149	1.07	54.8	84.8
[1	-8	-14]	(8	1	0)	(4	-3	2)	2.293	2.140	1.07	65.6	62.9
[1	-8	10]	(8	1	0)	(4	3	2)	2.293	2.140	1.07	59.7	69.9
[2	-16	-13]	(8	1	0)	(5	-1	2)	2.293	2.134	1.07	56.2	76.6
[2	-16	3]	(8	1	0)	(5	1	2)	2.293	2.134	1.07	54.0	86.9
[2	-16	-35]	(8	1	0)	(3	-4	2)	2.293	2.133	1.08	73.6	57.4
[2	-16	29]	(8	1	0)	(3	4	2)	2.293	2.133	1.08	66.2	62.1
[1	-8	-8]	(8	1	0)	(8	0	1)	2.293	2.118	1.08	24.7	73.7
[2	-16	-41]	(8	1	0)	(1	-5	2)	2.293	2.111	1.09	87.8	53.1
[2	-16	39]	(8	1	0)	(1	5	2)	2.293	2.111	1.09	79.1	54.5
[1	-8	-16]	(8	1	0)	(8	-1	1)	2.293	2.104	1.09	27.5	59.7
[1	-8	0]	(8	1	0)	(8	1	-1)	2.293	2.104	1.09	23.5	90.0
[1	-8	25]	(8	1	0)	(7	4	1)	2.293	2.090	1.10	32.4	47.6
[2	-16	-21]	(8	1	0)	(5	-2	2)	2.293	2.090	1.10	58.0	69.0
[2	-16	11]	(8	1	0)	(5	2	2)	2.293	2.090	1.10	53.8	78.6
[1	-8	-21]	(8	1	0)	(2	-5	2)	2.293	2.071	1.11	81.5	52.5
[1	-8	19]	(8	1	0)	(2	5	2)	2.293	2.071	1.11	72.8	55.2
[1	-8	-24]	(8	1	0)	(8	-2	1)	2.293	2.061	1.11	31.3	48.7
[1	-8	8]	(8	1	0)	(8	2	1)	2.293	2.061	1.11	24.0	73.7
[2	-16	-29]	(8	1	0)	(5	-3	2)	2.293	2.022	1.13	60.1	62.1
[2	-16	19]	(8	1	0)	(5	3	2)	2.293	2.022	1.13	54.2	70.8
[2	-16	-43]	(8	1	0)	(3	-5	2)	2.293	2.009	1.14	75.5	51.8
[2	-16	37]	(8	1	0)	(3	5	2)	2.293	2.009	1.14	66.7	55.9
[1	-8	16]	(8	1	0)	(8	3	1)	2.293	1.996	1.15	26.0	59.7

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Anthophyllite (810) 477 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[1	-8	-7]	(8	1	0)	(6	-1	2)	2.293	1.993	1.15	51.2	75.6
[1	-8	1]	(8	1	0)	(6	1	2)	2.293	1.993	1.15	49.1	87.9
[2	-16	-49]	(8	1	0)	(1	-6	2)	2.293	1.966	1.17	88.8	48.1
[2	-16	47]	(8	1	0)	(1	6	2)	2.293	1.966	1.17	79.1	49.3
[2	-16	-37]	(8	1	0)	(5	-4	2)	2.293	1.937	1.18	62.4	55.9
[2	-16	27]	(8	1	0)	(5	4	2)	2.293	1.937	1.18	54.9	63.7
[1	-8	-22]	(8	1	0)	(4	-5	2)	2.293	1.931	1.19	69.8	51.2
[1	-8	-18]	(8	1	0)	(4	5	-2)	2.293	1.931	1.19	61.1	56.6
[1	-8	9]	(8	1	0)	(-9	0	1)	2.293	1.916	1.20	22.5	71.8
[1	-8	24]	(8	1	0)	(8	4	1)	2.293	1.915	1.20	28.8	48.7
[1	-8	-17]	(8	1	0)	(9	-1	1)	2.293	1.905	1.20	25.1	58.1
[1	-8	-1]	(8	1	0)	(9	1	1)	2.293	1.905	1.20	21.2	87.9
[1	-8	-15]	(8	1	0)	(6	-3	2)	2.293	1.901	1.21	55.2	61.3
[1	-8	9]	(8	1	0)	(6	3	2)	2.293	1.901	1.21	49.3	71.8
[2	-16	51]	(8	1	0)	(3	-6	-2)	2.293	1.883	1.22	77.2	47.0
[2	-16	-45]	(8	1	0)	(-3	-6	2)	2.293	1.883	1.22	67.4	50.6
[1	-8	-25]	(8	1	0)	(9	-2	1)	2.293	1.873	1.22	28.7	47.6
[1	-8	7]	(8	1	0)	(9	2	1)	2.293	1.873	1.22	21.5	75.6
[2	-16	-7]	(8	1	0)	(7	0	2)	2.293	1.868	1.23	45.5	82.7
[2	-16	-15]	(8	1	0)	(7	-1	2)	2.293	1.858	1.23	46.9	74.7
[2	-16	1]	(8	1	0)	(7	1	2)	2.293	1.858	1.23	44.7	89.0
[2	-16	45]	(8	1	0)	(5	-5	-2)	2.293	1.843	1.24	64.7	50.6
[2	-16	-35]	(8	1	0)	(5	5	-2)	2.293	1.843	1.24	56.0	57.4
[2	-16	-23]	(8	1	0)	(7	-2	2)	2.293	1.828	1.25	48.7	67.2
[2	-16	9]	(8	1	0)	(7	2	2)	2.293	1.828	1.25	44.6	80.7
[1	-8	15]	(8	1	0)	(9	3	1)	2.293	1.824	1.26	23.2	61.3
[1	-8	27]	(8	1	0)	(2	7	2)	2.293	1.802	1.27	73.5	45.4
[2	-16	-31]	(8	1	0)	(7	-3	2)	2.293	1.782	1.29	50.9	60.5
[2	-16	17]	(8	1	0)	(7	3	2)	2.293	1.782	1.29	45.0	72.7
[1	-8	23]	(8	1	0)	(9	4	1)	2.293	1.761	1.30	25.8	49.9
[2	-16	53]	(8	1	0)	(3	7	2)	2.293	1.760	1.30	68.2	45.9
[3	-24	-1]	(8	1	0)	(1	0	3)	2.293	1.752	1.31	84.6	89.3
[3	-24	8]	(8	1	0)	(0	1	3)	2.293	1.752	1.31	89.3	84.4
[1	-8	23]	(8	1	0)	(6	-5	-2)	2.293	1.750	1.31	60.0	49.9
[1	-8	-17]	(8	1	0)	(-6	-5	2)	2.293	1.750	1.31	51.3	58.1
[1	-8	-3]	(8	1	0)	(1	-1	3)	2.293	1.744	1.32	85.4	83.7
[3	-24	7]	(8	1	0)	(1	1	3)	2.293	1.744	1.32	83.9	85.1
[2	-16	-53]	(8	1	0)	(5	-6	2)	2.293	1.744	1.32	66.9	45.9
[2	-16	43]	(8	1	0)	(5	6	2)	2.293	1.744	1.32	57.2	51.8
[1	-8	-8]	(8	1	0)	(8	-1	2)	2.293	1.731	1.32	43.1	73.7
[1	-8	0]	(8	1	0)	(8	1	2)	2.293	1.731	1.32	41.0	90.0
[3	-24	-2]	(8	1	0)	(2	0	3)	2.293	1.729	1.33	79.3	88.6
[2	-16	-39]	(8	1	0)	(7	-4	2)	2.293	1.724	1.33	53.3	54.5
[2	-16	25]	(8	1	0)	(7	4	2)	2.293	1.724	1.33	45.9	65.4
[3	-24	-10]	(8	1	0)	(2	-1	3)	2.293	1.721	1.33	80.1	83.1
[1	-8	2]	(8	1	0)	(2	1	3)	2.293	1.721	1.33	78.6	85.8
[3	-24	-17]	(8	1	0)	(1	-2	3)	2.293	1.719	1.33	86.1	78.3
[1	-8	5]	(8	1	0)	(1	2	3)	2.293	1.719	1.33	83.3	79.6

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Anthophyllite (810) 477 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[1	-8	-6]	(8	1	0)	(2	-2	3)	2.293	1.698	1.35	80.9	77.6
[3	-24	14]	(8	1	0)	(2	2	3)	2.293	1.698	1.35	78.1	80.3
[3	-24	5]	(8	1	0)	(3	1	3)	2.293	1.685	1.36	73.6	86.5
[3	-24	-25]	(8	1	0)	(1	-3	3)	2.293	1.681	1.36	86.9	73.1
[3	-24	23]	(8	1	0)	(1	3	3)	2.293	1.681	1.36	82.7	74.3
[1	-8	-16]	(8	1	0)	(8	-3	2)	2.293	1.670	1.37	47.1	59.7
[1	-8	8]	(8	1	0)	(8	3	2)	2.293	1.670	1.37	41.2	73.7
[3	-24	19]	(8	1	0)	(3	-2	-3)	2.293	1.663	1.38	75.9	77.0
[3	-24	13]	(8	1	0)	(3	2	3)	2.293	1.663	1.38	73.1	81.0
[3	-24	-26]	(8	1	0)	(2	-3	3)	2.293	1.661	1.38	81.8	72.4
[3	-24	22]	(8	1	0)	(2	3	3)	2.293	1.661	1.38	77.7	75.0
[2	-16	-47]	(8	1	0)	(7	-5	2)	2.293	1.656	1.38	55.8	49.3
[2	-16	33]	(8	1	0)	(7	5	2)	2.293	1.656	1.38	47.1	58.9
[2	-16	51]	(8	1	0)	(5	7	2)	2.293	1.645	1.39	58.4	47.0
[3	-24	-4]	(8	1	0)	(4	0	3)	2.293	1.645	1.39	69.3	87.2
[1	-8	-4]	(8	1	0)	(4	-1	3)	2.293	1.638	1.40	70.2	81.7
[3	-24	4]	(8	1	0)	(4	1	3)	2.293	1.638	1.40	68.7	87.2
[1	-8	-11]	(8	1	0)	(1	-4	3)	2.293	1.631	1.41	87.7	68.1
[3	-24	31]	(8	1	0)	(1	4	3)	2.293	1.631	1.41	82.3	69.3
[2	-16	9]	(8	1	0)	(9	0	-2)	2.293	1.622	1.41	38.5	80.7
[1	-8	4]	(8	1	0)	(4	2	3)	2.293	1.618	1.42	68.3	81.7
[2	-16	-17]	(8	1	0)	(9	-1	2)	2.293	1.615	1.42	39.8	72.7
[2	-16	-1]	(8	1	0)	(9	1	2)	2.293	1.615	1.42	37.7	89.0
[3	-24	-34]	(8	1	0)	(2	-4	3)	2.293	1.613	1.42	82.7	67.5
[1	-8	10]	(8	1	0)	(2	4	3)	2.293	1.613	1.42	77.3	69.9
[2	-16	-25]	(8	1	0)	(9	-2	2)	2.293	1.596	1.44	41.7	65.4
[2	-16	7]	(8	1	0)	(9	2	2)	2.293	1.596	1.44	37.5	82.7
[3	-24	-5]	(8	1	0)	(5	0	3)	2.293	1.589	1.44	64.8	86.5
[3	-24	-28]	(8	1	0)	(4	-3	3)	2.293	1.586	1.45	72.2	71.2
[3	-24	20]	(8	1	0)	(4	3	3)	2.293	1.586	1.45	68.0	76.3
[3	-24	-13]	(8	1	0)	(5	-1	3)	2.293	1.583	1.45	65.6	81.0
[1	-8	1]	(8	1	0)	(5	1	3)	2.293	1.583	1.45	64.2	87.9
[2	-16	41]	(8	1	0)	(7	6	2)	2.293	1.583	1.45	48.5	53.1
[3	-24	35]	(8	1	0)	(3	-4	-3)	2.293	1.583	1.45	77.9	66.9
[3	-24	-29]	(8	1	0)	(-3	-4	3)	2.293	1.583	1.45	72.5	70.5
[3	-24	40]	(8	1	0)	(0	5	3)	2.293	1.579	1.45	86.8	64.0
[1	-8	25]	(8	1	0)	(6	7	2)	2.293	1.578	1.45	54.1	47.6
[3	-24	-41]	(8	1	0)	(1	-5	3)	2.293	1.574	1.46	88.4	63.4
[1	-8	13]	(8	1	0)	(1	5	3)	2.293	1.574	1.46	81.9	64.6
[2	-16	-33]	(8	1	0)	(9	-3	2)	2.293	1.565	1.47	43.8	58.9
[2	-16	15]	(8	1	0)	(9	3	2)	2.293	1.565	1.47	37.9	74.7
[1	-8	-7]	(8	1	0)	(5	-2	3)	2.293	1.565	1.47	66.6	75.6
[3	-24	11]	(8	1	0)	(5	2	3)	2.293	1.565	1.47	63.8	82.4
[1	-8	-24]	(8	1	0)	(8	-5	2)	2.293	1.565	1.47	52.0	48.7
[1	-8	16]	(8	1	0)	(8	5	2)	2.293	1.565	1.47	43.4	59.7
[1	-8	-14]	(8	1	0)	(2	-5	3)	2.293	1.557	1.47	83.6	62.9
[3	-24	38]	(8	1	0)	(2	5	3)	2.293	1.557	1.47	77.1	65.1
[1	-8	-12]	(8	1	0)	(4	-4	3)	2.293	1.544	1.49	73.3	66.3

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Anthophyllite (810) 477 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-24	28]	(8	1	0)	(4	4	3)	2.293	1.544	1.49	68.0	71.2
[3	-24	-29]	(8	1	0)	(5	-3	3)	2.293	1.536	1.49	67.7	70.5
[3	-24	19]	(8	1	0)	(5	3	3)	2.293	1.536	1.49	63.6	77.0
[3	-24	-43]	(8	1	0)	(3	-5	3)	2.293	1.530	1.50	79.0	62.3
[3	-24	37]	(8	1	0)	(3	5	3)	2.293	1.530	1.50	72.5	65.7
[2	-16	-41]	(8	1	0)	(9	-4	2)	2.293	1.525	1.50	46.2	53.1
[2	-16	23]	(8	1	0)	(9	4	2)	2.293	1.525	1.50	38.8	67.2
[3	-24	-14]	(8	1	0)	(6	-1	3)	2.293	1.523	1.51	61.4	80.3
[3	-24	2]	(8	1	0)	(6	1	3)	2.293	1.523	1.51	59.9	88.6
[3	-24	-49]	(8	1	0)	(1	-6	3)	2.293	1.511	1.52	89.1	59.2
[3	-24	47]	(8	1	0)	(1	6	3)	2.293	1.511	1.52	81.6	60.2
[2	-16	49]	(8	1	0)	(7	7	2)	2.293	1.508	1.52	50.1	48.1
[3	-24	-22]	(8	1	0)	(6	-2	3)	2.293	1.507	1.52	62.4	75.0
[3	-24	10]	(8	1	0)	(6	2	3)	2.293	1.507	1.52	59.6	83.1
[3	-24	37]	(8	1	0)	(5	-4	-3)	2.293	1.498	1.53	69.0	65.7
[1	-8	9]	(8	1	0)	(5	4	3)	2.293	1.498	1.53	63.6	71.8
[3	-24	-50]	(8	1	0)	(2	-6	3)	2.293	1.496	1.53	84.5	58.6
[3	-24	46]	(8	1	0)	(2	6	3)	2.293	1.496	1.53	77.0	60.7
[3	-24	-44]	(8	1	0)	(4	-5	3)	2.293	1.495	1.53	74.5	61.8
[1	-8	12]	(8	1	0)	(4	5	3)	2.293	1.495	1.53	68.0	66.3
[2	-16	-49]	(8	1	0)	(9	-5	2)	2.293	1.477	1.55	48.7	48.1
[2	-16	31]	(8	1	0)	(9	5	2)	2.293	1.477	1.55	40.0	60.5
[1	-8	-5]	(8	1	0)	(7	-1	3)	2.293	1.460	1.57	57.5	79.6
[3	-24	1]	(8	1	0)	(7	1	3)	2.293	1.460	1.57	56.1	89.3
[1	-8	-15]	(8	1	0)	(5	-5	3)	2.293	1.453	1.58	70.3	61.3
[3	-24	35]	(8	1	0)	(5	5	3)	2.293	1.453	1.58	63.8	66.9
[3	-24	56]	(8	1	0)	(0	7	3)	2.293	1.450	1.58	85.8	55.7
[3	-24	-38]	(8	1	0)	(6	-4	3)	2.293	1.446	1.59	64.9	65.1
[3	-24	26]	(8	1	0)	(6	4	3)	2.293	1.446	1.59	59.6	72.4
[3	-24	-23]	(8	1	0)	(7	-2	3)	2.293	1.446	1.59	58.5	74.3
[1	-8	3]	(8	1	0)	(7	2	3)	2.293	1.446	1.59	55.7	83.7
[1	-8	-19]	(8	1	0)	(1	-7	3)	2.293	1.445	1.59	89.7	55.2
[3	-24	55]	(8	1	0)	(1	7	3)	2.293	1.445	1.59	81.4	56.2
[3	-24	-52]	(8	1	0)	(4	-6	3)	2.293	1.440	1.59	75.7	57.6
[3	-24	44]	(8	1	0)	(4	6	3)	2.293	1.440	1.59	68.2	61.8
[1	-8	24]	(8	1	0)	(8	7	2)	2.293	1.438	1.59	46.5	48.7
[3	-24	-58]	(8	1	0)	(2	-7	3)	2.293	1.432	1.60	85.3	54.7
[1	-8	18]	(8	1	0)	(2	7	3)	2.293	1.432	1.60	77.0	56.6
[2	-16	39]	(8	1	0)	(9	6	2)	2.293	1.425	1.61	41.5	54.5
[3	-24	-31]	(8	1	0)	(7	-3	3)	2.293	1.423	1.61	59.8	69.3
[3	-24	17]	(8	1	0)	(7	3	3)	2.293	1.423	1.61	55.6	78.3
[3	-24	59]	(8	1	0)	(3	-7	-3)	2.293	1.411	1.63	81.0	54.3
[3	-24	-53]	(8	1	0)	(-3	-7	3)	2.293	1.411	1.63	72.7	57.1
[3	-24	-46]	(8	1	0)	(6	-5	3)	2.293	1.406	1.63	66.3	60.7
[3	-24	34]	(8	1	0)	(6	5	3)	2.293	1.406	1.63	59.8	67.5
[3	-24	-53]	(8	1	0)	(5	-6	3)	2.293	1.403	1.64	71.6	57.1
[3	-24	43]	(8	1	0)	(5	6	3)	2.293	1.403	1.64	64.1	62.3
[3	-24	-8]	(8	1	0)	(8	0	3)	2.293	1.401	1.64	53.1	84.4

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-24	-16]	(8	1	0)	(8	-1	3)	2.293	1.396	1.64	53.9	79.0
[1	-8	0]	(8	1	0)	(8	1	3)	2.293	1.396	1.64	52.5	90.0
[1	-8	-13]	(8	1	0)	(7	-4	3)	2.293	1.392	1.65	61.1	64.6
[3	-24	25]	(8	1	0)	(7	4	3)	2.293	1.392	1.65	55.8	73.1
[1	-8	-8]	(8	1	0)	(8	-2	3)	2.293	1.384	1.66	55.0	73.7
[3	-24	8]	(8	1	0)	(8	2	3)	2.293	1.384	1.66	52.2	84.4
[1	-8	-20]	(8	1	0)	(4	-7	3)	2.293	1.383	1.66	76.9	53.8
[3	-24	52]	(8	1	0)	(4	7	3)	2.293	1.383	1.66	68.5	57.6
[3	-24	65]	(8	1	0)	(-1	8	3)	2.293	1.379	1.66	89.7	51.6
[1	-8	21]	(8	1	0)	(1	8	3)	2.293	1.379	1.66	81.2	52.5
[2	-16	47]	(8	1	0)	(9	7	2)	2.293	1.370	1.67	43.2	49.3
[1	-8	-22]	(8	1	0)	(2	-8	3)	2.293	1.368	1.68	86.1	51.2
[3	-24	62]	(8	1	0)	(2	8	3)	2.293	1.368	1.68	77.0	52.9
[3	-24	-32]	(8	1	0)	(8	-3	3)	2.293	1.363	1.68	56.3	68.7
[3	-24	16]	(8	1	0)	(8	3	3)	2.293	1.363	1.68	52.1	79.0
[3	-24	-61]	(8	1	0)	(5	-7	3)	2.293	1.350	1.70	72.9	53.4
[1	-8	17]	(8	1	0)	(5	7	3)	2.293	1.350	1.70	64.6	58.1
[3	-24	-67]	(8	1	0)	(3	-8	3)	2.293	1.350	1.70	82.0	50.8
[3	-24	-40]	(8	1	0)	(8	-4	3)	2.293	1.337	1.72	57.7	64.0
[1	-8	8]	(8	1	0)	(8	4	3)	2.293	1.337	1.72	52.3	73.7
[3	-24	-17]	(8	1	0)	(9	-1	3)	2.293	1.333	1.72	50.7	78.3
[3	-24	-1]	(8	1	0)	(9	1	3)	2.293	1.333	1.72	49.2	89.3
[3	-24	-68]	(8	1	0)	(4	-8	3)	2.293	1.325	1.73	78.0	50.3
[1	-8	20]	(8	1	0)	(4	8	3)	2.293	1.325	1.73	68.9	53.8
[3	-24	-25]	(8	1	0)	(9	-2	3)	2.293	1.322	1.73	51.8	73.1
[3	-24	7]	(8	1	0)	(9	2	3)	2.293	1.322	1.73	48.9	85.1
[4	-32	-1]	(8	1	0)	(1	0	4)	2.293	1.317	1.74	86.0	89.5
[3	-24	-55]	(8	1	0)	(7	-6	3)	2.293	1.315	1.74	64.1	56.2
[3	-24	41]	(8	1	0)	(7	6	3)	2.293	1.315	1.74	56.6	63.4
[3	-24	73]	(8	1	0)	(-1	9	3)	2.293	1.315	1.74	89.2	48.3
[3	-24	71]	(8	1	0)	(1	9	3)	2.293	1.315	1.74	81.1	49.1
[4	-32	-9]	(8	1	0)	(1	-1	4)	2.293	1.313	1.75	86.5	85.3
[4	-32	7]	(8	1	0)	(1	1	4)	2.293	1.313	1.75	85.4	86.3
[3	-24	-62]	(8	1	0)	(6	-7	3)	2.293	1.312	1.75	69.1	52.9
[3	-24	50]	(8	1	0)	(6	7	3)	2.293	1.312	1.75	60.8	58.6
[1	-8	4]	(8	1	0)	(0	2	4)	2.293	1.306	1.76	88.9	81.7
[3	-24	-74]	(8	1	0)	(2	-9	3)	2.293	1.305	1.76	86.8	47.9
[3	-24	70]	(8	1	0)	(2	9	3)	2.293	1.305	1.76	77.1	49.5
[1	-8	-16]	(8	1	0)	(8	-5	3)	2.293	1.304	1.76	59.2	59.7
[3	-24	32]	(8	1	0)	(8	5	3)	2.293	1.304	1.76	52.7	68.7
[2	-16	-5]	(8	1	0)	(2	-1	4)	2.293	1.303	1.76	82.5	84.8
[2	-16	3]	(8	1	0)	(2	1	4)	2.293	1.303	1.76	81.4	86.9
[4	-32	-17]	(8	1	0)	(1	-2	4)	2.293	1.303	1.76	87.1	81.2
[4	-32	15]	(8	1	0)	(1	2	4)	2.293	1.303	1.76	84.9	82.2
[1	-8	-23]	(8	1	0)	(5	-8	3)	2.293	1.296	1.77	74.2	49.9
[3	-24	59]	(8	1	0)	(5	8	3)	2.293	1.296	1.77	65.1	54.3
[4	-32	-3]	(8	1	0)	(3	0	4)	2.293	1.291	1.78	78.0	88.4
[4	-32	-11]	(8	1	0)	(3	-1	4)	2.293	1.287	1.78	78.6	84.3

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Anthophyllite (810) 477 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[4	-32	5]	(8	1	0)	(3	1	4)	2.293	1.287	1.78	77.5	87.4
[4	-32	-25]	(8	1	0)	(1	-3	4)	2.293	1.286	1.78	87.6	77.1
[4	-32	23]	(8	1	0)	(1	3	4)	2.293	1.286	1.78	84.5	78.1
[3	-24	-41]	(8	1	0)	(9	-4	3)	2.293	1.281	1.79	54.5	63.4
[3	-24	23]	(8	1	0)	(9	4	3)	2.293	1.281	1.79	49.1	74.3
[4	-32	-19]	(8	1	0)	(3	-2	4)	2.293	1.278	1.80	79.2	80.1
[4	-32	13]	(8	1	0)	(3	2	4)	2.293	1.278	1.80	77.1	83.2
[2	-16	-13]	(8	1	0)	(2	-3	4)	2.293	1.277	1.80	83.7	76.6
[2	-16	11]	(8	1	0)	(2	3	4)	2.293	1.277	1.80	80.5	78.6
[1	-8	-21]	(8	1	0)	(7	-7	3)	2.293	1.271	1.80	65.6	52.5
[3	-24	49]	(8	1	0)	(7	7	3)	2.293	1.271	1.80	57.3	59.2
[3	-24	-76]	(8	1	0)	(4	-9	3)	2.293	1.268	1.81	79.0	47.2
[3	-24	68]	(8	1	0)	(4	9	3)	2.293	1.268	1.81	69.3	50.3
[1	-8	-3]	(8	1	0)	(4	-1	4)	2.293	1.266	1.81	74.8	83.7
[1	-8	1]	(8	1	0)	(4	1	4)	2.293	1.266	1.81	73.7	87.9
[4	-32	-31]	(8	1	0)	(-1	-4	4)	2.293	1.263	1.82	84.0	74.2
[3	-24	70]	(8	1	0)	(6	-8	-3)	2.293	1.262	1.82	70.5	49.5
[3	-24	-58]	(8	1	0)	(-6	-8	3)	2.293	1.262	1.82	61.4	54.7
[4	-32	-27]	(8	1	0)	(3	-3	4)	2.293	1.262	1.82	79.9	76.1
[4	-32	21]	(8	1	0)	(3	3	4)	2.293	1.262	1.82	76.7	79.1
[3	-24	-49]	(8	1	0)	(9	-5	3)	2.293	1.252	1.83	56.0	59.2
[3	-24	31]	(8	1	0)	(9	5	3)	2.293	1.252	1.83	49.5	69.3
[4	-32	-5]	(8	1	0)	(5	0	4)	2.293	1.243	1.84	70.5	87.4
[3	-24	-77]	(8	1	0)	(5	-9	3)	2.293	1.242	1.85	75.4	46.8
[3	-24	67]	(8	1	0)	(5	9	3)	2.293	1.242	1.85	65.6	50.8
[1	-8	-7]	(8	1	0)	(4	-3	4)	2.293	1.242	1.85	76.1	75.6
[1	-8	5]	(8	1	0)	(4	3	4)	2.293	1.242	1.85	73.0	79.6
[4	-32	-13]	(8	1	0)	(5	-1	4)	2.293	1.240	1.85	71.1	83.2
[4	-32	3]	(8	1	0)	(5	1	4)	2.293	1.240	1.85	70.0	88.4
[4	-32	-35]	(8	1	0)	(3	-4	4)	2.293	1.240	1.85	80.6	72.3
[4	-32	29]	(8	1	0)	(3	4	4)	2.293	1.240	1.85	76.4	75.2
[4	-32	-41]	(8	1	0)	(1	-5	4)	2.293	1.236	1.86	88.7	69.5
[4	-32	39]	(8	1	0)	(1	5	4)	2.293	1.236	1.86	83.7	70.4
[4	-32	-21]	(8	1	0)	(5	-2	4)	2.293	1.231	1.86	71.8	79.1
[4	-32	11]	(8	1	0)	(5	2	4)	2.293	1.231	1.86	69.7	84.3
[3	-24	-64]	(8	1	0)	(8	-7	3)	2.293	1.228	1.87	62.3	52.0
[1	-8	16]	(8	1	0)	(8	7	3)	2.293	1.228	1.87	54.0	59.7
[2	-16	-21]	(8	1	0)	(2	-5	4)	2.293	1.228	1.87	85.0	69.0
[2	-16	19]	(8	1	0)	(2	5	4)	2.293	1.228	1.87	79.9	70.8
[3	-24	-71]	(8	1	0)	(7	-8	3)	2.293	1.226	1.87	67.1	49.1
[1	-8	19]	(8	1	0)	(7	8	3)	2.293	1.226	1.87	58.0	55.2
[4	-32	-29]	(8	1	0)	(5	-3	4)	2.293	1.217	1.88	72.5	75.2
[4	-32	19]	(8	1	0)	(5	3	4)	2.293	1.217	1.88	69.4	80.1
[4	-32	-43]	(8	1	0)	(3	-5	4)	2.293	1.214	1.89	81.3	68.5
[4	-32	37]	(8	1	0)	(3	5	4)	2.293	1.214	1.89	76.2	71.3
[2	-16	-7]	(8	1	0)	(6	-1	4)	2.293	1.211	1.89	67.6	82.7
[2	-16	1]	(8	1	0)	(6	1	4)	2.293	1.211	1.89	66.5	89.0
[4	-32	-49]	(8	1	0)	(1	-6	4)	2.293	1.205	1.90	89.3	65.9

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[4	-32	47]	(8	1	0)	(1	6	4)	2.293	1.205	1.90	83.3	66.7
[4	-32	-37]	(8	1	0)	(5	-4	4)	2.293	1.198	1.91	73.3	71.3
[4	-32	27]	(8	1	0)	(5	4	4)	2.293	1.198	1.91	69.2	76.1
[1	-8	-11]	(8	1	0)	(4	-5	4)	2.293	1.196	1.92	77.7	68.1
[1	-8	9]	(8	1	0)	(4	5	4)	2.293	1.196	1.92	72.6	71.8
[2	-16	-15]	(8	1	0)	(6	-3	4)	2.293	1.189	1.93	69.1	74.7
[2	-16	9]	(8	1	0)	(6	3	4)	2.293	1.189	1.93	65.9	80.7
[1	-8	-24]	(8	1	0)	(8	-8	3)	2.293	1.187	1.93	63.8	48.7
[3	-24	56]	(8	1	0)	(8	8	3)	2.293	1.187	1.93	54.8	55.7
[3	-24	-65]	(8	1	0)	(9	-7	3)	2.293	1.185	1.94	59.2	51.6
[3	-24	47]	(8	1	0)	(9	7	3)	2.293	1.185	1.94	50.9	60.2
[4	-32	-51]	(8	1	0)	(3	-6	4)	2.293	1.185	1.94	82.0	65.0
[4	-32	45]	(8	1	0)	(3	6	4)	2.293	1.185	1.94	76.0	67.6
[4	-32	-7]	(8	1	0)	(7	0	4)	2.293	1.181	1.94	63.7	86.3
[3	-24	-79]	(8	1	0)	(7	-9	3)	2.293	1.179	1.94	68.5	46.1
[3	-24	65]	(8	1	0)	(7	9	3)	2.293	1.179	1.94	58.8	51.6
[4	-32	-15]	(8	1	0)	(7	-1	4)	2.293	1.178	1.95	64.3	82.2
[4	-32	1]	(8	1	0)	(7	1	4)	2.293	1.178	1.95	63.2	89.5
[4	-32	-45]	(8	1	0)	(5	-5	4)	2.293	1.174	1.95	74.2	67.6
[4	-32	35]	(8	1	0)	(5	5	4)	2.293	1.174	1.95	69.1	72.3
[4	-32	-23]	(8	1	0)	(7	-2	4)	2.293	1.171	1.96	65.0	78.1
[4	-32	9]	(8	1	0)	(7	2	4)	2.293	1.171	1.96	62.9	85.3
[4	-32	-57]	(8	1	0)	(1	-7	4)	2.293	1.171	1.96	89.8	62.5
[4	-32	55]	(8	1	0)	(1	7	4)	2.293	1.171	1.96	83.0	63.3
[2	-16	29]	(8	1	0)	(-2	7	4)	2.293	1.164	1.97	86.2	62.1
[2	-16	27]	(8	1	0)	(2	7	4)	2.293	1.164	1.97	79.5	63.7
[4	-32	-31]	(8	1	0)	(7	-3	4)	2.293	1.158	1.98	65.8	74.2
[4	-32	17]	(8	1	0)	(7	3	4)	2.293	1.158	1.98	62.6	81.2
[4	-32	-59]	(8	1	0)	(3	-7	4)	2.293	1.152	1.99	82.7	61.7
[4	-32	53]	(8	1	0)	(3	7	4)	2.293	1.152	1.99	75.9	64.1
[2	-16	-23]	(8	1	0)	(6	-5	4)	2.293	1.149	2.00	70.8	67.2
[2	-16	17]	(8	1	0)	(6	5	4)	2.293	1.149	2.00	65.7	72.7
[3	-24	-73]	(8	1	0)	(9	-8	3)	2.293	1.148	2.00	60.8	48.3
[3	-24	55]	(8	1	0)	(9	8	3)	2.293	1.148	2.00	51.7	56.2
[4	-32	-53]	(8	1	0)	(5	-6	4)	2.293	1.148	2.00	75.0	64.1
[4	-32	43]	(8	1	0)	(5	6	4)	2.293	1.148	2.00	69.1	68.5
[3	-24	-80]	(8	1	0)	(8	-9	3)	2.293	1.145	2.00	65.3	45.7
[3	-24	64]	(8	1	0)	(8	9	3)	2.293	1.145	2.00	55.6	52.0
[1	-8	-4]	(8	1	0)	(8	-1	4)	2.293	1.144	2.00	61.2	81.7
[1	-8	0]	(8	1	0)	(8	1	4)	2.293	1.144	2.00	60.1	90.0
[4	-32	-39]	(8	1	0)	(7	-4	4)	2.293	1.142	2.01	66.7	70.4
[4	-32	25]	(8	1	0)	(7	4	4)	2.293	1.142	2.01	62.5	77.1
[1	-8	-15]	(8	1	0)	(4	-7	4)	2.293	1.137	2.02	79.2	61.3
[1	-8	13]	(8	1	0)	(4	7	4)	2.293	1.137	2.02	72.5	64.6
[4	-32	63]	(8	1	0)	(1	8	4)	2.293	1.135	2.02	82.8	60.1
[1	-8	-8]	(8	1	0)	(8	-3	4)	2.293	1.126	2.04	62.7	73.7
[1	-8	4]	(8	1	0)	(8	3	4)	2.293	1.126	2.04	59.5	81.7
[4	-32	-47]	(8	1	0)	(7	-5	4)	2.293	1.121	2.05	67.6	66.7

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Anthophyllite (810) 477 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[4	-32	33]	(8	1	0)	(7	5	4)	2.293	1.121	2.05	62.5	73.2
[4	-32	-61]	(8	1	0)	(5	-7	4)	2.293	1.118	2.05	75.9	60.9
[4	-32	51]	(8	1	0)	(5	7	4)	2.293	1.118	2.05	69.2	65.0
[4	-32	-67]	(8	1	0)	(3	-8	4)	2.293	1.118	2.05	83.4	58.5
[4	-32	-9]	(8	1	0)	(9	0	4)	2.293	1.111	2.06	57.6	85.3
[4	-32	-25]	(8	1	0)	(9	-2	4)	2.293	1.102	2.08	58.9	77.1
[4	-32	7]	(8	1	0)	(9	2	4)	2.293	1.102	2.08	56.8	86.3
[4	-32	-55]	(8	1	0)	(7	-6	4)	2.293	1.098	2.09	68.6	63.3
[4	-32	41]	(8	1	0)	(7	6	4)	2.293	1.098	2.09	62.7	69.5
[4	-32	73]	(8	1	0)	(-1	9	4)	2.293	1.098	2.09	89.3	56.3
[4	-32	71]	(8	1	0)	(1	9	4)	2.293	1.098	2.09	82.6	57.0
[2	-16	-31]	(8	1	0)	(6	-7	4)	2.293	1.096	2.09	72.7	60.5
[2	-16	25]	(8	1	0)	(6	7	4)	2.293	1.096	2.09	65.9	65.4
[2	-16	-37]	(8	1	0)	(2	-9	4)	2.293	1.092	2.10	87.3	55.9
[2	-16	35]	(8	1	0)	(2	9	4)	2.293	1.092	2.10	79.2	57.4
[4	-32	-33]	(8	1	0)	(9	-3	4)	2.293	1.092	2.10	59.8	73.2
[4	-32	15]	(8	1	0)	(9	3	4)	2.293	1.092	2.10	56.6	82.2
[1	-8	-12]	(8	1	0)	(8	-5	4)	2.293	1.092	2.10	64.6	66.3
[1	-8	8]	(8	1	0)	(8	5	4)	2.293	1.092	2.10	59.5	73.7
[4	-32	-69]	(8	1	0)	(5	-8	4)	2.293	1.087	2.11	76.8	57.8
[4	-32	59]	(8	1	0)	(5	8	4)	2.293	1.087	2.11	69.3	61.7
[4	-32	-75]	(8	1	0)	(3	-9	4)	2.293	1.083	2.12	84.0	55.6
[4	-32	69]	(8	1	0)	(3	9	4)	2.293	1.083	2.12	75.9	57.8
[4	-32	-41]	(8	1	0)	(9	-4	4)	2.293	1.078	2.13	60.7	69.5
[4	-32	23]	(8	1	0)	(9	4	4)	2.293	1.078	2.13	56.6	78.1
[4	-32	-63]	(8	1	0)	(7	-7	4)	2.293	1.072	2.14	69.6	60.1
[4	-32	49]	(8	1	0)	(7	7	4)	2.293	1.072	2.14	62.9	65.9
[1	-8	-19]	(8	1	0)	(4	-9	4)	2.293	1.070	2.14	80.8	55.2
[1	-8	17]	(8	1	0)	(4	9	4)	2.293	1.070	2.14	72.6	58.1
[4	-32	-49]	(8	1	0)	(9	-5	4)	2.293	1.061	2.16	61.7	65.9
[4	-32	31]	(8	1	0)	(9	5	4)	2.293	1.061	2.16	56.6	74.2
[5	-40	-1]	(8	1	0)	(1	0	5)	2.293	1.054	2.18	86.8	89.6
[4	-32	-77]	(8	1	0)	(5	-9	4)	2.293	1.054	2.18	77.6	54.9
[4	-32	67]	(8	1	0)	(5	9	4)	2.293	1.054	2.18	69.5	58.5
[5	-40	8]	(8	1	0)	(0	1	5)	2.293	1.054	2.18	89.6	86.7
[5	-40	-9]	(8	1	0)	(1	-1	5)	2.293	1.052	2.18	87.2	86.2
[5	-40	7]	(8	1	0)	(1	1	5)	2.293	1.052	2.18	86.3	87.1
[5	-40	-2]	(8	1	0)	(2	0	5)	2.293	1.049	2.19	83.5	89.2
[1	-8	-2]	(8	1	0)	(2	-1	5)	2.293	1.047	2.19	84.0	85.8
[5	-40	6]	(8	1	0)	(2	1	5)	2.293	1.047	2.19	83.1	87.5
[5	-40	-17]	(8	1	0)	(1	-2	5)	2.293	1.047	2.19	87.6	82.9
[1	-8	3]	(8	1	0)	(1	2	5)	2.293	1.047	2.19	85.9	83.7
[1	-8	-16]	(8	1	0)	(8	-7	4)	2.293	1.046	2.19	66.7	59.7
[1	-8	12]	(8	1	0)	(8	7	4)	2.293	1.046	2.19	59.9	66.3
[4	-32	-71]	(8	1	0)	(7	-8	4)	2.293	1.044	2.20	70.6	57.0
[4	-32	57]	(8	1	0)	(7	8	4)	2.293	1.044	2.20	63.1	62.5
[5	-40	-18]	(8	1	0)	(2	-2	5)	2.293	1.042	2.20	84.4	82.5
[5	-40	14]	(8	1	0)	(2	2	5)	2.293	1.042	2.20	82.7	84.2

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[4	-32	-57]	(8	1	0)	(9	-6	4)	2.293	1.041	2.20	62.8	62.5
[4	-32	39]	(8	1	0)	(9	6	4)	2.293	1.041	2.20	56.8	70.4
[5	-40	-3]	(8	1	0)	(3	0	5)	2.293	1.041	2.20	80.4	88.7
[5	-40	24]	(8	1	0)	(0	3	5)	2.293	1.040	2.21	88.7	80.0
[5	-40	-11]	(8	1	0)	(3	-1	5)	2.293	1.039	2.21	80.8	85.4
[1	-8	1]	(8	1	0)	(3	1	5)	2.293	1.039	2.21	79.9	87.9
[1	-8	-5]	(8	1	0)	(1	-3	5)	2.293	1.038	2.21	88.1	79.6
[5	-40	23]	(8	1	0)	(1	3	5)	2.293	1.038	2.21	85.5	80.5
[2	-16	-39]	(8	1	0)	(6	-9	4)	2.293	1.036	2.21	74.5	54.5
[2	-16	33]	(8	1	0)	(6	9	4)	2.293	1.036	2.21	66.4	58.9
[5	-40	-19]	(8	1	0)	(3	-2	5)	2.293	1.034	2.22	81.3	82.1
[5	-40	13]	(8	1	0)	(3	2	5)	2.293	1.034	2.22	79.6	84.6
[5	-40	-26]	(8	1	0)	(2	-3	5)	2.293	1.033	2.22	84.9	79.2
[5	-40	22]	(8	1	0)	(2	3	5)	2.293	1.033	2.22	82.4	80.9
[5	-40	-4]	(8	1	0)	(4	0	5)	2.293	1.030	2.23	77.2	88.3
[5	-40	-12]	(8	1	0)	(4	-1	5)	2.293	1.028	2.23	77.7	85.0
[5	-40	4]	(8	1	0)	(4	1	5)	2.293	1.028	2.23	76.8	88.3
[5	-40	-33]	(8	1	0)	(1	-4	5)	2.293	1.026	2.23	88.5	76.4
[5	-40	31]	(8	1	0)	(1	4	5)	2.293	1.026	2.23	85.2	77.2
[5	-40	-27]	(8	1	0)	(3	-3	5)	2.293	1.025	2.24	81.8	78.8
[5	-40	21]	(8	1	0)	(3	3	5)	2.293	1.025	2.24	79.2	81.3
[1	-8	-4]	(8	1	0)	(4	-2	5)	2.293	1.023	2.24	78.2	81.7
[5	-40	12]	(8	1	0)	(4	2	5)	2.293	1.023	2.24	76.5	85.0
[5	-40	-34]	(8	1	0)	(2	-4	5)	2.293	1.021	2.25	85.4	76.0
[1	-8	6]	(8	1	0)	(2	4	5)	2.293	1.021	2.25	82.0	77.6
[4	-32	-65]	(8	1	0)	(9	-7	4)	2.293	1.019	2.25	63.9	59.3
[4	-32	47]	(8	1	0)	(9	7	4)	2.293	1.019	2.25	57.1	66.7
[4	-32	-79]	(8	1	0)	(7	-9	4)	2.293	1.015	2.26	71.6	54.2
[4	-32	65]	(8	1	0)	(7	9	4)	2.293	1.015	2.26	63.5	59.3
[5	-40	-28]	(8	1	0)	(4	-3	5)	2.293	1.015	2.26	78.7	78.4
[1	-8	4]	(8	1	0)	(4	3	5)	2.293	1.015	2.26	76.2	81.7
[5	-40	-13]	(8	1	0)	(5	-1	5)	2.293	1.014	2.26	74.7	84.6
[5	-40	3]	(8	1	0)	(5	1	5)	2.293	1.014	2.26	73.8	88.7
[1	-8	-7]	(8	1	0)	(3	-4	5)	2.293	1.014	2.26	82.3	75.6
[5	-40	29]	(8	1	0)	(3	4	5)	2.293	1.014	2.26	78.9	78.0
[5	-40	-41]	(8	1	0)	(1	-5	5)	2.293	1.011	2.27	89.0	73.3
[5	-40	39]	(8	1	0)	(1	5	5)	2.293	1.011	2.27	84.8	74.1
[5	-40	-21]	(8	1	0)	(5	-2	5)	2.293	1.009	2.27	75.2	81.3
[5	-40	11]	(8	1	0)	(5	2	5)	2.293	1.009	2.27	73.4	85.4
[5	-40	-42]	(8	1	0)	(2	-5	5)	2.293	1.007	2.28	85.9	72.9
[5	-40	38]	(8	1	0)	(2	5	5)	2.293	1.007	2.28	81.7	74.5
[5	-40	-36]	(8	1	0)	(4	-4	5)	2.293	1.003	2.29	79.3	75.2
[5	-40	28]	(8	1	0)	(4	4	5)	2.293	1.003	2.29	75.9	78.4
[5	-40	-29]	(8	1	0)	(5	-3	5)	2.293	1.001	2.29	75.7	78.0
[5	-40	19]	(8	1	0)	(5	3	5)	2.293	1.001	2.29	73.2	82.1

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Anthophyllite (470) 488 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[7	-4	-7]	(4	7	0)	(1	0	1)	2.238	5.077	0.44	82.4	76.0
[7	-4	4]	(4	7	0)	(0	1	1)	2.238	5.064	0.44	75.7	81.9
[7	-4	11]	(4	7	0)	(-1	1	1)	2.238	4.885	0.46	83.6	68.6
[7	-4	-3]	(4	7	0)	(1	1	1)	2.238	4.885	0.46	68.5	83.9
[7	-4	-14]	(4	7	0)	(2	0	1)	2.238	4.586	0.49	76.1	63.5
[7	-4	-18]	(4	7	0)	(2	-1	1)	2.238	4.442	0.50	89.1	57.3
[7	-4	-10]	(4	7	0)	(2	1	1)	2.238	4.442	0.50	63.3	70.4
[7	-4	15]	(4	7	0)	(-1	2	1)	2.238	4.416	0.51	71.6	61.8
[7	-4	1]	(4	7	0)	(1	2	1)	2.238	4.416	0.51	56.8	88.0
[7	-4	22]	(4	7	0)	(-2	2	1)	2.238	4.081	0.55	79.3	51.9
[7	-4	-6]	(4	7	0)	(2	2	1)	2.238	4.081	0.55	52.2	77.9
[7	-4	-21]	(4	7	0)	(3	0	1)	2.238	4.011	0.56	71.7	53.2
[7	-4	12]	(4	7	0)	(0	3	1)	2.238	3.954	0.57	54.6	66.8
[7	-4	-25]	(4	7	0)	(3	-1	1)	2.238	3.914	0.57	83.4	48.3
[7	-4	17]	(4	7	0)	(3	1	-1)	2.238	3.914	0.57	60.1	58.8
[7	-4	19]	(4	7	0)	(-1	3	1)	2.238	3.867	0.58	62.2	55.9
[7	-4	5]	(4	7	0)	(1	3	1)	2.238	3.867	0.58	48.1	79.9
[7	-4	13]	(4	7	0)	(3	2	-1)	2.238	3.660	0.61	49.8	65.1
[7	-4	-26]	(4	7	0)	(2	-3	1)	2.238	3.636	0.62	69.9	47.1
[7	-4	-2]	(4	7	0)	(2	3	1)	2.238	3.636	0.62	43.7	85.9
[7	-4	-28]	(4	7	0)	(4	0	1)	2.238	3.479	0.64	68.7	45.0
[7	-4	-24]	(4	7	0)	(4	1	1)	2.238	3.415	0.66	58.4	49.4
[7	-4	23]	(4	7	0)	(-1	4	1)	2.238	3.357	0.67	55.3	50.6
[7	-4	9]	(4	7	0)	(1	4	1)	2.238	3.357	0.67	41.9	72.2
[7	-4	-9]	(4	7	0)	(3	3	1)	2.238	3.329	0.67	41.5	72.2
[7	-4	-20]	(4	7	0)	(4	2	1)	2.238	3.243	0.69	49.0	54.5
[7	-4	2]	(4	7	0)	(2	4	1)	2.238	3.203	0.70	37.5	85.9
[7	-4	16]	(4	7	0)	(4	3	-1)	2.238	3.005	0.74	41.0	60.3
[7	-4	5]	(4	7	0)	(-3	-4	1)	2.238	2.987	0.75	35.1	79.9
[7	-4	20]	(4	7	0)	(0	5	1)	2.238	2.963	0.76	43.6	54.5
[7	-4	27]	(4	7	0)	(-1	5	1)	2.238	2.926	0.76	50.3	46.1
[7	-4	13]	(4	7	0)	(1	5	1)	2.238	2.926	0.76	37.7	65.1
[7	-4	-27]	(4	7	0)	(5	2	1)	2.238	2.870	0.78	49.0	46.1
[7	-4	6]	(4	7	0)	(2	5	1)	2.238	2.822	0.79	33.1	77.9
[7	-4	-12]	(4	7	0)	(4	4	1)	2.238	2.747	0.81	34.5	66.8
[7	-4	-23]	(4	7	0)	(5	3	1)	2.238	2.702	0.83	41.4	50.6
[7	-4	1]	(4	7	0)	(3	5	-1)	2.238	2.671	0.84	30.4	88.0
[7	-4	0]	(4	7	0)	(0	0	2)	2.238	2.640	0.85	90.0	90.0
[14	-8	7]	(4	7	0)	(1	0	-2)	2.238	2.614	0.86	86.1	82.9
[14	-8	11]	(4	7	0)	(-1	1	2)	2.238	2.586	0.87	86.6	78.9
[14	-8	-3]	(4	7	0)	(1	1	2)	2.238	2.586	0.87	78.8	86.9
[7	-4	17]	(4	7	0)	(1	6	1)	2.238	2.572	0.87	34.7	58.8
[7	-4	-9]	(4	7	0)	(2	-1	2)	2.238	2.513	0.89	89.5	72.2
[7	-4	-5]	(4	7	0)	(2	1	2)	2.238	2.513	0.89	75.3	79.9
[7	-4	-19]	(4	7	0)	(5	4	1)	2.238	2.509	0.89	35.0	55.9
[14	-8	15]	(4	7	0)	(-1	2	2)	2.238	2.509	0.89	79.6	75.0
[14	-8	1]	(4	7	0)	(1	2	2)	2.238	2.509	0.89	71.9	89.0
[7	-4	10]	(4	7	0)	(2	6	1)	2.238	2.501	0.89	30.2	70.4

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Anthophyllite (470) 488 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[7	-4	-8]	(4	7	0)	(4	5	1)	2.238	2.495	0.90	29.4	74.1
[14	-8	-21]	(4	7	0)	(3	0	2)	2.238	2.427	0.92	79.0	69.5
[14	-8	-25]	(4	7	0)	(3	-1	2)	2.238	2.405	0.93	85.9	66.0
[14	-8	-17]	(4	7	0)	(3	1	2)	2.238	2.405	0.93	72.2	73.1
[14	-8	19]	(4	7	0)	(-1	3	2)	2.238	2.394	0.93	73.2	71.3
[14	-8	5]	(4	7	0)	(1	3	2)	2.238	2.394	0.93	65.6	84.9
[7	-4	3]	(4	7	0)	(3	6	1)	2.238	2.394	0.93	27.1	83.9
[14	-8	29]	(4	7	0)	(-3	2	2)	2.238	2.342	0.96	87.4	62.6
[14	-8	-13]	(4	7	0)	(3	2	2)	2.238	2.342	0.96	65.6	76.9
[7	-4	13]	(4	7	0)	(-2	3	2)	2.238	2.336	0.96	77.3	65.1
[7	-4	-1]	(4	7	0)	(2	3	2)	2.238	2.336	0.96	62.3	88.0
[7	-4	-15]	(4	7	0)	(5	5	1)	2.238	2.313	0.97	29.8	61.8
[7	-4	28]	(4	7	0)	(0	7	1)	2.238	2.301	0.97	38.0	45.0
[7	-4	-21]	(4	7	0)	(-1	-7	1)	2.238	2.284	0.98	32.7	53.2
[7	-4	-16]	(4	7	0)	(4	-1	2)	2.238	2.274	0.98	82.7	60.3
[7	-4	-12]	(4	7	0)	(4	1	2)	2.238	2.274	0.98	69.6	66.8
[7	-4	8]	(4	7	0)	(0	4	2)	2.238	2.274	0.98	63.6	74.1
[7	-4	-4]	(4	7	0)	(4	6	1)	2.238	2.265	0.99	25.7	81.9
[14	-8	23]	(4	7	0)	(-1	4	2)	2.238	2.257	0.99	67.5	67.7
[14	-8	9]	(4	7	0)	(1	4	2)	2.238	2.257	0.99	60.0	80.9
[14	-8	33]	(4	7	0)	(-3	3	2)	2.238	2.248	1.00	81.2	59.5
[14	-8	-9]	(4	7	0)	(3	3	2)	2.238	2.248	1.00	59.6	80.9
[7	-4	14]	(4	7	0)	(2	7	1)	2.238	2.233	1.00	28.2	63.5
[14	-8	-35]	(4	7	0)	(5	0	2)	2.238	2.149	1.04	73.7	58.0
[7	-4	20]	(4	7	0)	(-4	3	2)	2.238	2.140	1.05	84.8	54.5
[7	-4	-8]	(4	7	0)	(4	3	2)	2.238	2.140	1.05	57.5	74.1
[7	-4	22]	(4	7	0)	(6	5	-1)	2.238	2.136	1.05	31.0	51.9
[14	-8	39]	(4	7	0)	(-5	1	2)	2.238	2.134	1.05	79.9	55.2
[14	-8	-31]	(4	7	0)	(5	1	2)	2.238	2.134	1.05	67.5	61.1
[14	-8	37]	(4	7	0)	(-3	4	2)	2.238	2.133	1.05	75.5	56.6
[14	-8	-5]	(4	7	0)	(3	4	2)	2.238	2.133	1.05	54.2	84.9
[7	-4	-11]	(4	7	0)	(5	6	1)	2.238	2.126	1.05	25.6	68.6
[14	-8	27]	(4	7	0)	(-1	5	2)	2.238	2.111	1.06	62.6	64.3
[14	-8	13]	(4	7	0)	(1	5	2)	2.238	2.111	1.06	55.2	76.9
[14	-8	-43]	(4	7	0)	(5	-2	2)	2.238	2.090	1.07	86.0	52.5
[14	-8	-27]	(4	7	0)	(5	2	2)	2.238	2.090	1.07	61.5	64.3
[7	-4	17]	(4	7	0)	(-2	5	2)	2.238	2.071	1.08	66.6	58.8
[7	-4	3]	(4	7	0)	(2	5	2)	2.238	2.071	1.08	52.1	83.9
[7	-4	0]	(4	7	0)	(4	7	1)	2.238	2.060	1.09	23.0	90.0
[7	-4	25]	(4	7	0)	(1	8	1)	2.238	2.047	1.09	31.3	48.3
[14	-8	47]	(4	7	0)	(-5	3	2)	2.238	2.022	1.11	88.2	50.0
[14	-8	-23]	(4	7	0)	(5	3	2)	2.238	2.022	1.11	55.9	67.7
[7	-4	18]	(4	7	0)	(2	8	1)	2.238	2.011	1.11	26.9	57.3
[14	-8	41]	(4	7	0)	(-3	5	2)	2.238	2.009	1.11	70.5	53.8
[14	-8	1]	(4	7	0)	(3	5	-2)	2.238	2.009	1.11	49.6	89.0
[7	-4	-23]	(4	7	0)	(6	-1	2)	2.238	1.993	1.12	77.6	50.6
[7	-4	-19]	(4	7	0)	(6	1	2)	2.238	1.993	1.12	65.8	55.9
[7	-4	-18]	(4	7	0)	(6	6	1)	2.238	1.986	1.13	26.6	57.3

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[14	-8	31]	(4	7	0)	(-1	6	2)	2.238	1.966	1.14	58.3	61.1
[14	-8	17]	(4	7	0)	(1	6	2)	2.238	1.966	1.14	51.1	73.1
[7	-4	11]	(4	7	0)	(3	8	1)	2.238	1.954	1.15	23.4	68.6
[14	-8	51]	(4	7	0)	(-5	4	2)	2.238	1.937	1.16	82.8	47.7
[14	-8	-19]	(4	7	0)	(5	4	2)	2.238	1.937	1.16	50.8	71.3
[7	-4	24]	(4	7	0)	(-4	5	2)	2.238	1.931	1.16	74.3	49.4
[7	-4	-4]	(4	7	0)	(4	5	2)	2.238	1.931	1.16	47.6	81.9
[7	-4	-27]	(4	7	0)	(6	-3	2)	2.238	1.901	1.18	88.9	46.1
[7	-4	-15]	(4	7	0)	(6	3	2)	2.238	1.901	1.18	54.8	61.8
[14	-8	45]	(4	7	0)	(-3	6	2)	2.238	1.883	1.19	66.1	51.2
[14	-8	3]	(4	7	0)	(3	6	2)	2.238	1.883	1.19	45.6	86.9
[7	-4	4]	(4	7	0)	(4	8	1)	2.238	1.882	1.19	21.1	81.9
[14	-8	-49]	(4	7	0)	(7	0	2)	2.238	1.868	1.20	70.0	48.8
[14	-8	-53]	(4	7	0)	(7	-1	2)	2.238	1.858	1.20	75.6	46.6
[14	-8	-45]	(4	7	0)	(7	1	2)	2.238	1.858	1.20	64.5	51.2
[7	-4	25]	(4	7	0)	(7	6	-1)	2.238	1.852	1.21	28.0	48.3
[7	-4	-14]	(4	7	0)	(6	7	1)	2.238	1.844	1.21	23.0	63.5
[14	-8	55]	(4	7	0)	(-5	5	2)	2.238	1.843	1.21	77.9	45.5
[14	-8	-15]	(4	7	0)	(5	5	2)	2.238	1.843	1.21	46.3	75.0
[14	-8	41]	(4	7	0)	(7	2	-2)	2.238	1.828	1.22	59.1	53.8
[14	-8	35]	(4	7	0)	(-1	7	2)	2.238	1.828	1.22	54.7	58.0
[14	-8	21]	(4	7	0)	(1	7	2)	2.238	1.828	1.22	47.7	69.5
[7	-4	22]	(4	7	0)	(2	9	1)	2.238	1.825	1.23	26.1	51.9
[7	-4	21]	(4	7	0)	(-2	7	2)	2.238	1.802	1.24	58.5	53.2
[7	-4	7]	(4	7	0)	(2	7	2)	2.238	1.802	1.24	44.7	76.0
[7	-4	-3]	(4	7	0)	(5	8	1)	2.238	1.800	1.24	20.1	83.9
[14	-8	37]	(4	7	0)	(7	3	-2)	2.238	1.782	1.26	54.0	56.6
[7	-4	-15]	(4	7	0)	(-3	-9	1)	2.238	1.782	1.26	22.5	61.8
[14	-8	49]	(4	7	0)	(-3	7	2)	2.238	1.760	1.27	62.3	48.8
[14	-8	7]	(4	7	0)	(3	7	2)	2.238	1.760	1.27	42.2	82.9
[21	-12	-7]	(4	7	0)	(1	0	3)	2.238	1.752	1.28	87.4	85.2
[21	-12	4]	(4	7	0)	(0	1	3)	2.238	1.752	1.28	85.1	87.3
[7	-4	11]	(4	7	0)	(6	5	-2)	2.238	1.750	1.28	45.4	68.6
[21	-12	11]	(4	7	0)	(-1	1	3)	2.238	1.744	1.28	87.7	82.5
[7	-4	-1]	(4	7	0)	(1	1	3)	2.238	1.744	1.28	82.5	88.0
[14	-8	-11]	(4	7	0)	(5	6	2)	2.238	1.744	1.28	42.3	78.9
[7	-4	21]	(4	7	0)	(7	7	-1)	2.238	1.736	1.29	24.3	53.2
[7	-4	26]	(4	7	0)	(-8	-1	2)	2.238	1.731	1.29	63.5	47.1
[21	-12	-14]	(4	7	0)	(2	0	3)	2.238	1.729	1.29	84.8	80.5
[7	-4	8]	(4	7	0)	(4	9	1)	2.238	1.727	1.30	19.9	74.1
[14	-8	-33]	(4	7	0)	(7	4	2)	2.238	1.724	1.30	49.3	59.5
[7	-4	-6]	(4	7	0)	(2	-1	3)	2.238	1.721	1.30	89.7	77.9
[21	-12	-10]	(4	7	0)	(2	1	3)	2.238	1.721	1.30	80.0	83.2
[7	-4	5]	(4	7	0)	(-1	2	3)	2.238	1.719	1.30	82.9	79.9
[21	-12	1]	(4	7	0)	(1	2	3)	2.238	1.719	1.30	77.7	89.3
[7	-4	-10]	(4	7	0)	(6	8	1)	2.238	1.713	1.31	20.1	70.4
[7	-4	-28]	(4	7	0)	(4	-7	2)	2.238	1.707	1.31	66.1	45.0
[7	-4	0]	(4	7	0)	(4	7	2)	2.238	1.707	1.31	40.3	90.0

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Anthophyllite (470) 488 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[7	-4	16]	(4	7	0)	(0	8	2)	2.238	1.707	1.31	48.1	60.3
[14	-8	39]	(4	7	0)	(-1	8	2)	2.238	1.700	1.32	51.7	55.2
[14	-8	25]	(4	7	0)	(1	8	2)	2.238	1.700	1.32	44.8	66.0
[21	-12	22]	(4	7	0)	(-2	2	3)	2.238	1.698	1.32	85.6	75.3
[7	-4	-2]	(4	7	0)	(2	2	3)	2.238	1.698	1.32	75.2	85.9
[21	-12	-17]	(4	7	0)	(3	1	3)	2.238	1.685	1.33	77.6	78.6
[21	-12	19]	(4	7	0)	(-1	3	3)	2.238	1.681	1.33	78.3	77.3
[21	-12	5]	(4	7	0)	(1	3	3)	2.238	1.681	1.33	73.1	86.6
[7	-4	22]	(4	7	0)	(8	3	-2)	2.238	1.670	1.34	53.5	51.9
[21	-12	-13]	(4	7	0)	(3	2	3)	2.238	1.663	1.35	73.0	81.2
[7	-4	1]	(4	7	0)	(5	9	1)	2.238	1.663	1.35	18.4	88.0
[21	-12	26]	(4	7	0)	(-2	3	3)	2.238	1.661	1.35	81.0	72.8
[21	-12	-2]	(4	7	0)	(2	3	3)	2.238	1.661	1.35	70.7	88.6
[14	-8	-29]	(4	7	0)	(7	5	2)	2.238	1.656	1.35	44.9	62.6
[14	-8	-7]	(4	7	0)	(5	7	2)	2.238	1.645	1.36	38.9	82.9
[14	-8	53]	(4	7	0)	(-3	8	2)	2.238	1.645	1.36	59.0	46.6
[14	-8	11]	(4	7	0)	(3	8	2)	2.238	1.645	1.36	39.4	78.9
[21	-12	-28]	(4	7	0)	(4	0	3)	2.238	1.645	1.36	80.1	71.6
[21	-12	-32]	(4	7	0)	(4	-1	3)	2.238	1.638	1.37	84.8	69.2
[7	-4	-8]	(4	7	0)	(4	1	3)	2.238	1.638	1.37	75.4	74.1
[21	-12	23]	(4	7	0)	(-1	4	3)	2.238	1.631	1.37	74.0	74.7
[7	-4	3]	(4	7	0)	(1	4	3)	2.238	1.631	1.37	68.8	83.9
[7	-4	28]	(4	7	0)	(8	7	-1)	2.238	1.631	1.37	25.9	45.0
[7	-4	-17]	(4	7	0)	(7	8	1)	2.238	1.625	1.38	21.1	58.8
[7	-4	-12]	(4	7	0)	(4	-2	3)	2.238	1.618	1.38	89.4	66.8
[21	-12	-20]	(4	7	0)	(4	2	3)	2.238	1.618	1.38	70.9	76.6
[7	-4	10]	(4	7	0)	(-2	4	3)	2.238	1.613	1.39	76.6	70.4
[21	-12	2]	(4	7	0)	(2	4	3)	2.238	1.613	1.39	66.4	88.6
[7	-4	6]	(4	7	0)	(6	9	-1)	2.238	1.593	1.40	18.0	77.9
[21	-12	35]	(4	7	0)	(-5	0	3)	2.238	1.589	1.41	78.0	67.4
[21	-12	40]	(4	7	0)	(-4	3	3)	2.238	1.586	1.41	86.2	64.6
[21	-12	-16]	(4	7	0)	(4	3	3)	2.238	1.586	1.41	66.5	79.2
[7	-4	-13]	(4	7	0)	(5	-1	3)	2.238	1.583	1.41	82.6	65.1
[21	-12	-31]	(4	7	0)	(5	1	3)	2.238	1.583	1.41	73.5	69.8
[14	-8	25]	(4	7	0)	(7	6	-2)	2.238	1.583	1.41	41.0	66.0
[21	-12	-37]	(4	7	0)	(3	-4	3)	2.238	1.583	1.41	79.3	66.2
[21	-12	-5]	(4	7	0)	(3	4	3)	2.238	1.583	1.41	64.3	86.6
[14	-8	43]	(4	7	0)	(-1	9	2)	2.238	1.583	1.41	49.1	52.5
[14	-8	29]	(4	7	0)	(1	9	2)	2.238	1.583	1.41	42.5	62.6
[21	-12	20]	(4	7	0)	(0	5	3)	2.238	1.579	1.42	67.3	76.6
[7	-4	-7]	(4	7	0)	(6	7	2)	2.238	1.578	1.42	38.0	76.0
[7	-4	9]	(4	7	0)	(-1	5	3)	2.238	1.574	1.42	69.9	72.2
[21	-12	13]	(4	7	0)	(1	5	3)	2.238	1.574	1.42	64.8	81.2
[7	-4	25]	(4	7	0)	(-2	9	2)	2.238	1.566	1.43	52.6	48.3
[7	-4	11]	(4	7	0)	(2	9	2)	2.238	1.566	1.43	39.6	68.6
[14	-8	-51]	(4	7	0)	(9	3	2)	2.238	1.565	1.43	53.3	47.7
[21	-12	-43]	(4	7	0)	(5	-2	3)	2.238	1.565	1.43	87.0	62.9
[7	-4	-9]	(4	7	0)	(5	2	3)	2.238	1.565	1.43	69.0	72.2

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U V W]	(h k 0)	(h k l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[7 -4 -18]	(4 7 0)	(8 5 2)	2.238	1.565	1.43	44.8	57.3
[21 -12 34]	(4 7 0)	(-2 5 3)	2.238	1.557	1.44	72.6	68.0
[7 -4 2]	(4 7 0)	(2 5 3)	2.238	1.557	1.44	62.5	85.9
[14 -8 -3]	(4 7 0)	(5 8 2)	2.238	1.550	1.44	36.0	86.9
[21 -12 44]	(4 7 0)	(-4 4 3)	2.238	1.544	1.45	81.9	62.4
[7 -4 -4]	(4 7 0)	(4 4 3)	2.238	1.544	1.45	62.4	81.9
[14 -8 15]	(4 7 0)	(3 9 2)	2.238	1.538	1.45	37.1	75.0
[7 -4 -24]	(4 7 0)	(8 8 1)	2.238	1.538	1.45	22.6	49.4
[21 -12 47]	(4 7 0)	(-5 3 3)	2.238	1.536	1.46	88.6	60.8
[21 -12 23]	(4 7 0)	(5 3 -3)	2.238	1.536	1.46	64.8	74.7
[21 -12 41]	(4 7 0)	(-3 5 3)	2.238	1.530	1.46	75.3	64.0
[21 -12 -1]	(4 7 0)	(3 5 3)	2.238	1.530	1.46	60.4	89.3
[14 -8 47]	(4 7 0)	(9 4 -2)	2.238	1.525	1.47	48.9	50.0
[21 -12 46]	(4 7 0)	(-6 1 3)	2.238	1.523	1.47	80.5	61.3
[21 -12 -38]	(4 7 0)	(6 1 3)	2.238	1.523	1.47	71.7	65.7
[7 -4 -13]	(4 7 0)	(7 9 1)	2.238	1.522	1.47	18.5	65.1
[21 -12 31]	(4 7 0)	(-1 6 3)	2.238	1.511	1.48	66.2	69.8
[21 -12 17]	(4 7 0)	(1 6 3)	2.238	1.511	1.48	61.1	78.6
[14 -8 21]	(4 7 0)	(7 7 -2)	2.238	1.508	1.48	37.6	69.5
[21 -12 -50]	(4 7 0)	(6 -2 3)	2.238	1.507	1.49	84.9	59.3
[21 -12 -34]	(4 7 0)	(6 2 3)	2.238	1.507	1.49	67.4	68.0
[7 -4 17]	(4 7 0)	(-5 4 3)	2.238	1.498	1.49	84.4	58.8
[21 -12 -19]	(4 7 0)	(5 4 3)	2.238	1.498	1.49	60.7	77.3
[21 -12 38]	(4 7 0)	(-2 6 3)	2.238	1.496	1.50	68.9	65.7
[21 -12 10]	(4 7 0)	(2 6 3)	2.238	1.496	1.50	58.9	83.2
[7 -4 16]	(4 7 0)	(-4 5 3)	2.238	1.495	1.50	77.9	60.3
[21 -12 -8]	(4 7 0)	(4 5 3)	2.238	1.495	1.50	58.5	84.6
[14 -8 43]	(4 7 0)	(9 5 -2)	2.238	1.477	1.51	44.9	52.5
[21 -12 -49]	(4 7 0)	(7 0 3)	2.238	1.465	1.53	74.4	59.8
[21 -12 -53]	(4 7 0)	(7 -1 3)	2.238	1.460	1.53	78.7	57.8
[7 -4 -15]	(4 7 0)	(7 1 3)	2.238	1.460	1.53	70.2	61.8
[14 -8 1]	(4 7 0)	(5 9 2)	2.238	1.460	1.53	33.6	89.0
[21 -12 55]	(4 7 0)	(-5 5 3)	2.238	1.453	1.54	80.5	56.8
[7 -4 -5]	(4 7 0)	(5 5 3)	2.238	1.453	1.54	57.0	79.9
[7 -4 -20]	(4 7 0)	(8 9 1)	2.238	1.450	1.54	19.7	54.5
[21 -12 28]	(4 7 0)	(0 7 3)	2.238	1.450	1.54	60.3	71.6
[21 -12 58]	(4 7 0)	(-6 4 3)	2.238	1.446	1.55	86.8	55.4
[21 -12 26]	(4 7 0)	(6 4 -3)	2.238	1.446	1.55	59.3	72.8
[7 -4 19]	(4 7 0)	(-7 2 3)	2.238	1.446	1.55	82.9	55.9
[21 -12 -41]	(4 7 0)	(7 2 3)	2.238	1.446	1.55	66.0	64.0
[21 -12 35]	(4 7 0)	(-1 7 3)	2.238	1.445	1.55	62.8	67.4
[7 -4 7]	(4 7 0)	(1 7 3)	2.238	1.445	1.55	57.8	76.0
[21 -12 -52]	(4 7 0)	(-4 6 -3)	2.238	1.440	1.55	74.2	58.3
[21 -12 4]	(4 7 0)	(-4 -6 3)	2.238	1.440	1.55	55.0	87.3
[7 -4 -14]	(4 7 0)	(8 7 2)	2.238	1.438	1.56	37.5	63.5
[14 -8 -17]	(4 7 0)	(7 8 2)	2.238	1.434	1.56	34.6	73.1
[7 -4 14]	(4 7 0)	(-2 7 3)	2.238	1.432	1.56	65.5	63.5
[21 -12 14]	(4 7 0)	(2 7 3)	2.238	1.432	1.56	55.6	80.5

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Anthophyllite (470) 488 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[14	-8	-39]	(4	7	0)	(9	6	2)	2.238	1.425	1.57	41.1	55.2
[21	-12	-61]	(4	7	0)	(7	-3	3)	2.238	1.423	1.57	87.0	54.0
[21	-12	-37]	(4	7	0)	(7	3	3)	2.238	1.423	1.57	62.0	66.2
[7	-4	3]	(4	7	0)	(6	9	-2)	2.238	1.412	1.58	32.5	83.9
[21	-12	-49]	(4	7	0)	(3	-7	3)	2.238	1.411	1.59	68.1	59.8
[21	-12	7]	(4	7	0)	(3	7	3)	2.238	1.411	1.59	53.6	85.2
[21	-12	62]	(4	7	0)	(-6	5	3)	2.238	1.406	1.59	82.9	53.6
[21	-12	-22]	(4	7	0)	(6	5	3)	2.238	1.406	1.59	55.7	75.3
[21	-12	59]	(4	7	0)	(-5	6	3)	2.238	1.403	1.60	76.8	54.9
[21	-12	-11]	(4	7	0)	(5	6	3)	2.238	1.403	1.60	53.5	82.5
[21	-12	-56]	(4	7	0)	(8	0	3)	2.238	1.401	1.60	73.0	56.3
[7	-4	-20]	(4	7	0)	(8	-1	3)	2.238	1.396	1.60	77.1	54.5
[21	-12	-52]	(4	7	0)	(8	1	3)	2.238	1.396	1.60	68.9	58.3
[21	-12	65]	(4	7	0)	(-7	4	3)	2.238	1.392	1.61	89.0	52.3
[7	-4	-11]	(4	7	0)	(7	4	3)	2.238	1.392	1.61	58.2	68.6
[21	-12	-64]	(4	7	0)	(8	-2	3)	2.238	1.384	1.62	81.1	52.7
[7	-4	-16]	(4	7	0)	(8	2	3)	2.238	1.384	1.62	64.9	60.3
[21	-12	56]	(4	7	0)	(-4	7	3)	2.238	1.383	1.62	70.8	56.3
[7	-4	0]	(4	7	0)	(4	7	3)	2.238	1.383	1.62	51.8	90.0
[7	-4	-27]	(4	7	0)	(9	9	1)	2.238	1.380	1.62	21.3	46.1
[7	-4	13]	(4	7	0)	(-1	8	3)	2.238	1.379	1.62	59.8	65.1
[21	-12	25]	(4	7	0)	(1	8	3)	2.238	1.379	1.62	54.9	73.4
[14	-8	-35]	(4	7	0)	(9	7	2)	2.238	1.370	1.63	37.7	58.0
[21	-12	46]	(4	7	0)	(-2	8	3)	2.238	1.368	1.64	62.4	61.3
[7	-4	6]	(4	7	0)	(2	8	3)	2.238	1.368	1.64	52.7	77.9
[21	-12	-68]	(4	7	0)	(8	-3	3)	2.238	1.363	1.64	85.1	51.0
[21	-12	44]	(4	7	0)	(8	3	-3)	2.238	1.363	1.64	61.0	62.4
[14	-8	13]	(4	7	0)	(-7	-9	2)	2.238	1.362	1.64	32.0	76.9
[21	-12	29]	(4	7	0)	(7	5	-3)	2.238	1.356	1.65	54.6	71.0
[7	-4	21]	(4	7	0)	(-5	7	3)	2.238	1.350	1.66	73.4	53.2
[21	-12	-7]	(4	7	0)	(5	7	3)	2.238	1.350	1.66	50.3	85.2
[21	-12	53]	(4	7	0)	(-3	8	3)	2.238	1.350	1.66	65.0	57.8
[21	-12	11]	(4	7	0)	(3	8	3)	2.238	1.350	1.66	50.7	82.5
[7	-4	-24]	(4	7	0)	(8	-4	3)	2.238	1.337	1.67	89.0	49.4
[21	-12	-40]	(4	7	0)	(8	4	3)	2.238	1.337	1.67	57.2	64.6
[21	-12	-67]	(4	7	0)	(9	-1	3)	2.238	1.333	1.68	75.6	51.4
[21	-12	-59]	(4	7	0)	(9	1	3)	2.238	1.333	1.68	67.7	54.9
[7	-4	20]	(4	7	0)	(-4	8	3)	2.238	1.325	1.69	67.7	54.5
[21	-12	4]	(4	7	0)	(4	8	3)	2.238	1.325	1.69	48.9	87.3
[21	-12	-71]	(4	7	0)	(9	-2	3)	2.238	1.322	1.69	79.5	49.8
[21	-12	-55]	(4	7	0)	(9	2	3)	2.238	1.322	1.69	63.9	56.8
[28	-16	-7]	(4	7	0)	(1	0	4)	2.238	1.317	1.70	88.0	86.4
[21	-12	73]	(4	7	0)	(-7	6	3)	2.238	1.315	1.70	81.7	49.0
[21	-12	25]	(4	7	0)	(7	6	-3)	2.238	1.315	1.70	51.2	73.4
[21	-12	-43]	(4	7	0)	(1	-9	3)	2.238	1.315	1.70	57.0	62.9
[21	-12	29]	(4	7	0)	(1	9	3)	2.238	1.315	1.70	52.2	71.0
[14	-8	-31]	(4	7	0)	(9	8	2)	2.238	1.313	1.70	34.6	61.1
[28	-16	11]	(4	7	0)	(-1	1	4)	2.238	1.313	1.70	88.3	84.4

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U V W]	(h k 0)	(h k l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[28 -16 -3]	(4 7 0)	(1 1 4)	2.238	1.313	1.70	84.3	88.5
[21 -12 70]	(4 7 0)	(-6 7 3)	2.238	1.312	1.71	75.9	50.2
[21 -12 -14]	(4 7 0)	(6 7 3)	2.238	1.312	1.71	49.1	80.5
[7 -4 -10]	(4 7 0)	(8 9 2)	2.238	1.309	1.71	31.8	70.4
[21 -12 50]	(4 7 0)	(-2 9 3)	2.238	1.305	1.72	59.6	59.3
[21 -12 22]	(4 7 0)	(2 9 3)	2.238	1.305	1.72	50.0	75.3
[21 -12 76]	(4 7 0)	(-8 5 3)	2.238	1.304	1.72	87.4	47.9
[7 -4 -12]	(4 7 0)	(8 5 3)	2.238	1.304	1.72	53.7	66.8
[14 -8 -9]	(4 7 0)	(2 -1 4)	2.238	1.303	1.72	89.7	80.9
[14 -8 -5]	(4 7 0)	(2 1 4)	2.238	1.303	1.72	82.4	84.9
[28 -16 15]	(4 7 0)	(-1 2 4)	2.238	1.303	1.72	84.6	82.4
[28 -16 1]	(4 7 0)	(1 2 4)	2.238	1.303	1.72	80.7	89.5
[21 -12 -67]	(4 7 0)	(-5 8 -3)	2.238	1.296	1.73	70.3	51.4
[7 -4 1]	(4 7 0)	(5 8 -3)	2.238	1.296	1.73	47.4	88.0
[28 -16 -21]	(4 7 0)	(3 0 4)	2.238	1.291	1.73	84.2	79.4
[28 -16 -25]	(4 7 0)	(3 -1 4)	2.238	1.287	1.74	87.8	77.4
[28 -16 -17]	(4 7 0)	(3 1 4)	2.238	1.287	1.74	80.6	81.4
[28 -16 19]	(4 7 0)	(-1 3 4)	2.238	1.286	1.74	81.1	80.4
[28 -16 5]	(4 7 0)	(1 3 4)	2.238	1.286	1.74	77.2	87.4
[21 -12 -79]	(4 7 0)	(9 -4 3)	2.238	1.281	1.75	87.1	46.8
[21 -12 47]	(4 7 0)	(9 4 -3)	2.238	1.281	1.75	56.5	60.8
[28 -16 -29]	(4 7 0)	(3 -2 4)	2.238	1.278	1.75	88.6	75.5
[28 -16 -13]	(4 7 0)	(3 2 4)	2.238	1.278	1.75	77.0	83.4
[14 -8 -13]	(4 7 0)	(-2 3 -4)	2.238	1.277	1.75	83.1	76.9
[14 -8 1]	(4 7 0)	(-2 -3 4)	2.238	1.277	1.75	75.3	89.0
[21 -12 77]	(4 7 0)	(-7 7 3)	2.238	1.271	1.76	78.3	47.5
[7 -4 7]	(4 7 0)	(7 7 -3)	2.238	1.271	1.76	48.1	76.0
[21 -12 64]	(4 7 0)	(-4 9 3)	2.238	1.268	1.77	64.8	52.7
[21 -12 8]	(4 7 0)	(4 9 3)	2.238	1.268	1.77	46.3	84.6
[7 -4 -8]	(4 7 0)	(4 -1 4)	2.238	1.266	1.77	86.0	74.1
[7 -4 -6]	(4 7 0)	(4 1 4)	2.238	1.266	1.77	78.8	77.9
[28 -16 -9]	(4 7 0)	(-1 -4 4)	2.238	1.263	1.77	73.7	85.4
[21 -12 74]	(4 7 0)	(-6 8 3)	2.238	1.262	1.77	72.8	48.6
[21 -12 -10]	(4 7 0)	(6 8 3)	2.238	1.262	1.77	46.2	83.2
[28 -16 33]	(4 7 0)	(-3 3 4)	2.238	1.262	1.77	85.1	73.6
[28 -16 -9]	(4 7 0)	(3 3 4)	2.238	1.262	1.77	73.5	85.4
[14 -8 -27]	(4 7 0)	(9 9 2)	2.238	1.257	1.78	31.9	64.3
[28 -16 -35]	(4 7 0)	(5 0 4)	2.238	1.243	1.80	80.6	72.7
[21 -12 71]	(4 7 0)	(-5 9 3)	2.238	1.242	1.80	67.4	49.8
[21 -12 1]	(4 7 0)	(5 9 3)	2.238	1.242	1.80	44.9	89.3
[7 -4 10]	(4 7 0)	(-4 3 4)	2.238	1.242	1.80	87.0	70.4
[7 -4 -4]	(4 7 0)	(4 3 4)	2.238	1.242	1.80	71.8	81.9
[28 -16 -39]	(4 7 0)	(5 -1 4)	2.238	1.240	1.80	84.2	70.8
[28 -16 -31]	(4 7 0)	(5 1 4)	2.238	1.240	1.80	77.1	74.5
[28 -16 37]	(4 7 0)	(-3 4 4)	2.238	1.240	1.80	81.6	71.7
[28 -16 -5]	(4 7 0)	(3 4 4)	2.238	1.240	1.80	70.1	87.4
[28 -16 27]	(4 7 0)	(-1 5 4)	2.238	1.236	1.81	74.4	76.5
[28 -16 13]	(4 7 0)	(1 5 4)	2.238	1.236	1.81	70.5	83.4

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Anthophyllite (470) 488 Zone Axes

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Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U V W]	(h k 0)	(h k l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[28 -16 -43]	(4 7 0)	(5 -2 4)	2.238	1.231	1.82	87.7	69.0
[28 -16 -27]	(4 7 0)	(5 2 4)	2.238	1.231	1.82	73.7	76.5
[7 -4 28]	(4 7 0)	(-8 7 3)	2.238	1.228	1.82	80.6	45.0
[21 -12 28]	(4 7 0)	(8 7 -3)	2.238	1.228	1.82	47.4	71.6
[14 -8 -17]	(4 7 0)	(2 -5 4)	2.238	1.228	1.82	76.4	73.1
[14 -8 3]	(4 7 0)	(2 5 4)	2.238	1.228	1.82	68.6	86.9
[7 -4 27]	(4 7 0)	(-7 8 3)	2.238	1.226	1.83	75.2	46.1
[21 -12 -17]	(4 7 0)	(7 8 3)	2.238	1.226	1.83	45.3	78.6
[28 -16 47]	(4 7 0)	(-5 3 4)	2.238	1.217	1.84	88.9	67.3
[28 -16 23]	(4 7 0)	(5 3 -4)	2.238	1.217	1.84	70.3	78.4
[28 -16 -41]	(4 7 0)	(3 -5 4)	2.238	1.214	1.84	78.4	69.9
[28 -16 -1]	(4 7 0)	(3 5 4)	2.238	1.214	1.84	66.9	89.5
[14 -8 23]	(4 7 0)	(6 -1 -4)	2.238	1.211	1.85	82.5	67.7
[14 -8 19]	(4 7 0)	(-6 -1 4)	2.238	1.211	1.85	75.6	71.3
[28 -16 31]	(4 7 0)	(-1 6 4)	2.238	1.205	1.86	71.2	74.5
[28 -16 17]	(4 7 0)	(1 6 4)	2.238	1.205	1.86	67.4	81.4
[28 -16 51]	(4 7 0)	(-5 4 4)	2.238	1.198	1.87	85.5	65.5
[28 -16 -19]	(4 7 0)	(5 4 4)	2.238	1.198	1.87	67.0	80.4
[7 -4 12]	(4 7 0)	(-4 5 4)	2.238	1.196	1.87	80.4	66.8
[7 -4 -2]	(4 7 0)	(4 5 4)	2.238	1.196	1.87	65.3	85.9
[14 -8 -27]	(4 7 0)	(6 -3 4)	2.238	1.189	1.88	89.3	64.3
[14 -8 -15]	(4 7 0)	(6 3 4)	2.238	1.189	1.88	68.8	75.0
[7 -4 -8]	(4 7 0)	(8 8 3)	2.238	1.187	1.89	44.5	74.1
[21 -12 -35]	(4 7 0)	(9 7 3)	2.238	1.185	1.89	46.8	67.4
[28 -16 45]	(4 7 0)	(-3 6 4)	2.238	1.185	1.89	75.3	68.1
[28 -16 3]	(4 7 0)	(3 6 4)	2.238	1.185	1.89	63.9	88.5
[28 -16 -49]	(4 7 0)	(7 0 4)	2.238	1.181	1.90	77.5	66.4
[21 -12 -13]	(4 7 0)	(7 9 3)	2.238	1.179	1.90	42.7	81.2
[28 -16 -53]	(4 7 0)	(7 -1 4)	2.238	1.178	1.90	80.9	64.7
[28 -16 -45]	(4 7 0)	(7 1 4)	2.238	1.178	1.90	74.1	68.1
[28 -16 55]	(4 7 0)	(-5 5 4)	2.238	1.174	1.91	82.3	63.9
[28 -16 -15]	(4 7 0)	(5 5 4)	2.238	1.174	1.91	63.9	82.4
[28 -16 -57]	(4 7 0)	(7 -2 4)	2.238	1.171	1.91	84.3	63.0
[28 -16 -41]	(4 7 0)	(7 2 4)	2.238	1.171	1.91	70.8	69.9
[28 -16 35]	(4 7 0)	(-1 7 4)	2.238	1.171	1.91	68.3	72.7
[28 -16 21]	(4 7 0)	(1 7 4)	2.238	1.171	1.91	64.5	79.4
[14 -8 7]	(4 7 0)	(2 7 4)	2.238	1.164	1.92	62.7	82.9
[28 -16 -61]	(4 7 0)	(7 -3 4)	2.238	1.158	1.93	87.6	61.4
[28 -16 37]	(4 7 0)	(7 3 -4)	2.238	1.158	1.93	67.5	71.7
[28 -16 49]	(4 7 0)	(-3 7 4)	2.238	1.152	1.94	72.3	66.4
[28 -16 7]	(4 7 0)	(3 7 4)	2.238	1.152	1.94	61.0	86.4
[14 -8 31]	(4 7 0)	(-6 5 4)	2.238	1.149	1.95	84.2	61.1
[14 -8 11]	(4 7 0)	(6 5 -4)	2.238	1.149	1.95	62.5	78.9
[21 -12 31]	(4 7 0)	(-9 -8 3)	2.238	1.148	1.95	44.0	69.8
[28 -16 -59]	(4 7 0)	(-5 6 -4)	2.238	1.148	1.95	79.2	62.2
[28 -16 11]	(4 7 0)	(-5 -6 4)	2.238	1.148	1.95	60.9	84.4
[21 -12 -20]	(4 7 0)	(8 9 3)	2.238	1.145	1.95	42.0	76.6
[7 -4 -15]	(4 7 0)	(8 -1 4)	2.238	1.144	1.96	79.4	61.8

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[7	-4	-13]	(4	7	0)	(8	1	4)	2.238	1.144	1.96	72.8	65.1
[28	-16	65]	(4	7	0)	(-7	4	4)	2.238	1.142	1.96	89.2	59.9
[28	-16	-33]	(4	7	0)	(7	4	4)	2.238	1.142	1.96	64.4	73.6
[7	-4	14]	(4	7	0)	(-4	7	4)	2.238	1.137	1.97	74.3	63.5
[7	-4	0]	(4	7	0)	(4	7	4)	2.238	1.137	1.97	59.5	90.0
[28	-16	39]	(4	7	0)	(-1	8	4)	2.238	1.135	1.97	65.5	70.8
[28	-16	25]	(4	7	0)	(1	8	4)	2.238	1.135	1.97	61.7	77.4
[7	-4	-17]	(4	7	0)	(8	-3	4)	2.238	1.126	1.99	86.0	58.8
[7	-4	-11]	(4	7	0)	(8	3	4)	2.238	1.126	1.99	66.4	68.6
[28	-16	69]	(4	7	0)	(-7	5	4)	2.238	1.121	2.00	86.1	58.4
[28	-16	-29]	(4	7	0)	(7	5	4)	2.238	1.121	2.00	61.3	75.5
[28	-16	-63]	(4	7	0)	(-5	7	-4)	2.238	1.118	2.00	76.3	60.7
[28	-16	7]	(4	7	0)	(-5	-7	4)	2.238	1.118	2.00	58.1	86.4
[28	-16	53]	(4	7	0)	(-3	8	4)	2.238	1.118	2.00	69.5	64.7
[28	-16	11]	(4	7	0)	(3	8	4)	2.238	1.118	2.00	58.3	84.4
[28	-16	-63]	(4	7	0)	(9	0	4)	2.238	1.111	2.01	74.8	60.7
[28	-16	-59]	(4	7	0)	(9	1	4)	2.238	1.109	2.02	71.6	62.2
[28	-16	-71]	(4	7	0)	(9	-2	4)	2.238	1.102	2.03	81.3	57.7
[28	-16	-55]	(4	7	0)	(9	2	4)	2.238	1.102	2.03	68.5	63.9
[28	-16	73]	(4	7	0)	(-7	6	4)	2.238	1.098	2.04	83.0	56.9
[28	-16	25]	(4	7	0)	(7	6	-4)	2.238	1.098	2.04	58.5	77.4
[28	-16	-43]	(4	7	0)	(1	-9	4)	2.238	1.098	2.04	63.0	69.0
[28	-16	29]	(4	7	0)	(1	9	4)	2.238	1.098	2.04	59.2	75.5
[14	-8	35]	(4	7	0)	(-6	7	4)	2.238	1.096	2.04	78.3	58.0
[14	-8	-7]	(4	7	0)	(6	7	4)	2.238	1.096	2.04	56.8	82.9
[14	-8	25]	(4	7	0)	(-2	9	4)	2.238	1.092	2.05	64.9	66.0
[14	-8	11]	(4	7	0)	(2	9	4)	2.238	1.092	2.05	57.5	78.9
[28	-16	-75]	(4	7	0)	(9	-3	4)	2.238	1.092	2.05	84.4	56.2
[28	-16	-51]	(4	7	0)	(9	3	4)	2.238	1.092	2.05	65.3	65.5
[7	-4	19]	(4	7	0)	(-8	5	4)	2.238	1.092	2.05	87.8	55.9
[7	-4	-9]	(4	7	0)	(8	5	4)	2.238	1.092	2.05	60.3	72.2
[28	-16	67]	(4	7	0)	(-5	8	4)	2.238	1.087	2.06	73.6	59.1
[28	-16	-3]	(4	7	0)	(5	8	4)	2.238	1.087	2.06	55.4	88.5
[28	-16	57]	(4	7	0)	(-3	9	4)	2.238	1.083	2.07	67.0	63.0
[28	-16	15]	(4	7	0)	(3	9	4)	2.238	1.083	2.07	55.8	82.4
[28	-16	-79]	(4	7	0)	(9	-4	4)	2.238	1.078	2.08	87.5	54.8
[28	-16	47]	(4	7	0)	(9	4	-4)	2.238	1.078	2.08	62.3	67.3
[28	-16	-77]	(4	7	0)	(7	-7	4)	2.238	1.072	2.09	80.2	55.5
[28	-16	-21]	(4	7	0)	(7	7	4)	2.238	1.072	2.09	55.7	79.4
[7	-4	2]	(4	7	0)	(4	9	4)	2.238	1.070	2.09	54.4	85.9
[28	-16	83]	(4	7	0)	(-9	5	4)	2.238	1.061	2.11	89.4	53.5
[28	-16	-43]	(4	7	0)	(9	5	4)	2.238	1.061	2.11	59.4	69.0
[35	-20	-7]	(4	7	0)	(1	0	5)	2.238	1.054	2.12	88.4	87.1
[28	-16	71]	(4	7	0)	(-5	9	4)	2.238	1.054	2.12	71.0	57.7
[28	-16	1]	(4	7	0)	(5	9	4)	2.238	1.054	2.12	53.0	89.5
[35	-20	4]	(4	7	0)	(0	1	5)	2.238	1.054	2.12	87.0	88.4
[35	-20	11]	(4	7	0)	(-1	1	5)	2.238	1.052	2.13	88.6	85.5
[35	-20	-3]	(4	7	0)	(1	1	5)	2.238	1.052	2.13	85.5	88.8

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Anthophyllite (470) 488 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[35	-20	-14]	(4	7	0)	(2	0	5)	2.238	1.049	2.13	86.9	84.3
[35	-20	-18]	(4	7	0)	(2	-1	5)	2.238	1.047	2.14	89.8	82.7
[7	-4	-2]	(4	7	0)	(2	1	5)	2.238	1.047	2.14	83.9	85.9
[7	-4	3]	(4	7	0)	(-1	2	5)	2.238	1.047	2.14	85.7	83.9
[35	-20	1]	(4	7	0)	(1	2	5)	2.238	1.047	2.14	82.5	89.6
[7	-4	21]	(4	7	0)	(-8	7	4)	2.238	1.046	2.14	82.0	53.2
[7	-4	7]	(4	7	0)	(8	7	-4)	2.238	1.046	2.14	54.8	76.0
[28	-16	-81]	(4	7	0)	(7	-8	4)	2.238	1.044	2.14	77.5	54.1
[28	-16	-17]	(4	7	0)	(7	8	4)	2.238	1.044	2.14	53.2	81.4
[35	-20	22]	(4	7	0)	(-2	2	5)	2.238	1.042	2.15	87.3	81.1
[35	-20	-6]	(4	7	0)	(2	2	5)	2.238	1.042	2.15	81.0	87.5
[28	-16	87]	(4	7	0)	(-9	6	4)	2.238	1.041	2.15	86.5	52.2
[28	-16	-39]	(4	7	0)	(9	6	4)	2.238	1.041	2.15	56.6	70.8
[35	-20	-21]	(4	7	0)	(3	0	5)	2.238	1.041	2.15	85.3	81.5
[35	-20	12]	(4	7	0)	(0	3	5)	2.238	1.040	2.15	81.2	85.1
[7	-4	-5]	(4	7	0)	(3	-1	5)	2.238	1.039	2.15	88.2	79.9
[35	-20	-17]	(4	7	0)	(3	1	5)	2.238	1.039	2.15	82.4	83.1
[35	-20	19]	(4	7	0)	(-1	3	5)	2.238	1.038	2.16	82.8	82.3
[7	-4	1]	(4	7	0)	(1	3	5)	2.238	1.038	2.16	79.7	88.0
[14	-8	39]	(4	7	0)	(-6	9	4)	2.238	1.036	2.16	72.9	55.2
[14	-8	3]	(4	7	0)	(6	9	-4)	2.238	1.036	2.16	51.8	86.9
[35	-20	-29]	(4	7	0)	(-3	2	-5)	2.238	1.034	2.16	88.9	78.3
[35	-20	-13]	(4	7	0)	(3	2	5)	2.238	1.034	2.16	79.5	84.7
[35	-20	26]	(4	7	0)	(-2	3	5)	2.238	1.033	2.17	84.4	79.5
[35	-20	-2]	(4	7	0)	(2	3	5)	2.238	1.033	2.17	78.1	89.2
[35	-20	-28]	(4	7	0)	(4	0	5)	2.238	1.030	2.17	83.8	78.7
[35	-20	-32]	(4	7	0)	(4	-1	5)	2.238	1.028	2.18	86.7	77.1
[35	-20	-24]	(4	7	0)	(4	1	5)	2.238	1.028	2.18	80.9	80.3
[35	-20	23]	(4	7	0)	(-1	4	5)	2.238	1.026	2.18	80.0	80.7
[35	-20	9]	(4	7	0)	(1	4	5)	2.238	1.026	2.18	76.8	86.3
[35	-20	33]	(4	7	0)	(-3	3	5)	2.238	1.025	2.18	86.0	76.7
[35	-20	-9]	(4	7	0)	(3	3	5)	2.238	1.025	2.18	76.7	86.3
[35	-20	-36]	(4	7	0)	(4	-2	5)	2.238	1.023	2.19	89.6	75.6
[7	-4	-4]	(4	7	0)	(4	2	5)	2.238	1.023	2.19	78.1	81.9
[7	-4	6]	(4	7	0)	(-2	4	5)	2.238	1.021	2.19	81.6	77.9
[35	-20	2]	(4	7	0)	(2	4	5)	2.238	1.021	2.19	75.3	89.2
[28	-16	91]	(4	7	0)	(-9	7	4)	2.238	1.019	2.20	83.8	50.9
[28	-16	-35]	(4	7	0)	(9	7	4)	2.238	1.019	2.20	54.0	72.7
[28	-16	85]	(4	7	0)	(-7	9	4)	2.238	1.015	2.20	74.9	52.8
[28	-16	-13]	(4	7	0)	(7	9	4)	2.238	1.015	2.20	50.8	83.4
[7	-4	8]	(4	7	0)	(-4	3	5)	2.238	1.015	2.21	87.6	74.1
[35	-20	-16]	(4	7	0)	(4	3	5)	2.238	1.015	2.21	75.2	83.5
[35	-20	-39]	(4	7	0)	(5	-1	5)	2.238	1.014	2.21	85.2	74.4
[35	-20	-31]	(4	7	0)	(5	1	5)	2.238	1.014	2.21	79.5	77.5
[35	-20	37]	(4	7	0)	(-3	4	5)	2.238	1.014	2.21	83.2	75.2
[7	-4	-1]	(4	7	0)	(3	4	5)	2.238	1.014	2.21	73.9	88.0
[35	-20	27]	(4	7	0)	(-1	5	5)	2.238	1.011	2.21	77.2	79.1
[35	-20	13]	(4	7	0)	(1	5	5)	2.238	1.011	2.21	74.1	84.7

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Anthophyllite (470) 488 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[35	-20	-43]	(4	7	0)	(5	-2	5)	2.238	1.009	2.22	88.1	72.9
[35	-20	-27]	(4	7	0)	(5	2	5)	2.238	1.009	2.22	76.7	79.1
[35	-20	34]	(4	7	0)	(-2	5	5)	2.238	1.007	2.22	78.8	76.4
[35	-20	6]	(4	7	0)	(2	5	5)	2.238	1.007	2.22	72.6	87.5
[35	-20	44]	(4	7	0)	(-4	4	5)	2.238	1.003	2.23	84.8	72.6
[35	-20	-12]	(4	7	0)	(4	4	5)	2.238	1.003	2.23	72.5	85.1
[35	-20	47]	(4	7	0)	(-5	3	5)	2.238	1.001	2.24	89.1	71.5
[35	-20	-23]	(4	7	0)	(5	3	5)	2.238	1.001	2.24	73.9	80.7

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Anthophyllite (280) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[4	-1	-4]	(2	8	0)	(1	0	1)	2.175	5.077	0.43	86.3	74.5
[4	-1	1]	(2	8	0)	(0	1	1)	2.175	5.064	0.43	74.0	86.0
[4	-1	5]	(2	8	0)	(-1	1	1)	2.175	4.885	0.45	78.3	70.9
[4	-1	-3]	(2	8	0)	(1	1	1)	2.175	4.885	0.45	70.9	78.2
[4	-1	-8]	(2	8	0)	(2	0	1)	2.175	4.586	0.47	83.3	61.0
[4	-1	9]	(2	8	0)	(-2	1	1)	2.175	4.442	0.49	82.6	58.0
[4	-1	-7]	(2	8	0)	(2	1	1)	2.175	4.442	0.49	69.3	64.1
[4	-1	6]	(2	8	0)	(-1	2	1)	2.175	4.416	0.49	64.9	67.4
[4	-1	-2]	(2	8	0)	(1	2	1)	2.175	4.416	0.49	57.6	82.1
[4	-1	10]	(2	8	0)	(-2	2	1)	2.175	4.081	0.53	70.2	55.3
[4	-1	-6]	(2	8	0)	(2	2	1)	2.175	4.081	0.53	56.8	67.4
[4	-1	-12]	(2	8	0)	(3	0	1)	2.175	4.011	0.54	81.2	50.2
[4	-1	3]	(2	8	0)	(0	3	1)	2.175	3.954	0.55	49.9	78.2
[4	-1	13]	(2	8	0)	(-3	1	1)	2.175	3.914	0.56	86.4	48.0
[4	-1	-11]	(2	8	0)	(3	1	1)	2.175	3.914	0.56	68.8	52.7
[4	-1	7]	(2	8	0)	(-1	3	1)	2.175	3.867	0.56	54.5	64.1
[4	-1	-1]	(2	8	0)	(1	3	1)	2.175	3.867	0.56	47.2	86.0
[4	-1	14]	(2	8	0)	(-3	2	1)	2.175	3.660	0.59	75.1	45.8
[4	-1	-10]	(2	8	0)	(3	2	1)	2.175	3.660	0.59	57.5	55.3
[4	-1	11]	(2	8	0)	(-2	3	1)	2.175	3.636	0.60	60.0	52.7
[4	-1	-5]	(2	8	0)	(2	3	1)	2.175	3.636	0.60	46.8	70.9
[4	-1	8]	(2	8	0)	(-1	4	1)	2.175	3.357	0.65	46.6	61.0
[4	-1	0]	(2	8	0)	(1	4	-1)	2.175	3.357	0.65	39.5	90.0
[4	-1	-9]	(2	8	0)	(3	3	1)	2.175	3.329	0.65	48.0	58.0
[4	-1	-14]	(2	8	0)	(4	2	1)	2.175	3.243	0.67	58.9	45.8
[4	-1	12]	(2	8	0)	(-2	4	1)	2.175	3.203	0.68	52.1	50.2
[4	-1	-4]	(2	8	0)	(2	4	1)	2.175	3.203	0.68	39.0	74.5
[4	-1	-13]	(2	8	0)	(4	3	1)	2.175	3.005	0.72	50.0	48.0
[4	-1	-8]	(2	8	0)	(3	4	1)	2.175	2.987	0.73	40.3	61.0
[4	-1	5]	(2	8	0)	(0	5	1)	2.175	2.963	0.73	36.4	70.9
[4	-1	9]	(2	8	0)	(-1	5	1)	2.175	2.926	0.74	40.8	58.0
[4	-1	1]	(2	8	0)	(1	5	1)	2.175	2.926	0.74	33.7	86.0
[4	-1	13]	(2	8	0)	(-2	5	1)	2.175	2.822	0.77	46.0	48.0
[4	-1	-3]	(2	8	0)	(2	5	1)	2.175	2.822	0.77	33.1	78.2
[4	-1	-12]	(2	8	0)	(4	4	1)	2.175	2.747	0.79	42.6	50.2
[4	-1	7]	(2	8	0)	(3	5	-1)	2.175	2.671	0.81	34.2	64.1
[4	-1	2]	(2	8	0)	(1	0	-2)	2.175	2.614	0.83	88.1	82.1
[8	-2	5]	(2	8	0)	(-1	1	2)	2.175	2.586	0.84	83.8	80.2
[8	-2	-3]	(2	8	0)	(1	1	2)	2.175	2.586	0.84	80.0	84.1
[4	-1	10]	(2	8	0)	(-1	6	1)	2.175	2.572	0.85	36.4	55.3
[4	-1	2]	(2	8	0)	(1	6	1)	2.175	2.572	0.85	29.5	82.1
[8	-2	9]	(2	8	0)	(-2	1	2)	2.175	2.513	0.87	85.8	72.7
[8	-2	-7]	(2	8	0)	(2	1	2)	2.175	2.513	0.87	78.4	76.4
[4	-1	3]	(2	8	0)	(-1	2	2)	2.175	2.509	0.87	76.1	78.2
[4	-1	-1]	(2	8	0)	(1	2	2)	2.175	2.509	0.87	72.3	86.0
[4	-1	14]	(2	8	0)	(-2	6	1)	2.175	2.501	0.87	41.3	45.8
[4	-1	-2]	(2	8	0)	(2	6	1)	2.175	2.501	0.87	28.6	82.1
[4	-1	-11]	(2	8	0)	(4	5	1)	2.175	2.495	0.87	36.5	52.7

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Anthophyllite (280) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[4	-1	-6]	(2	8	0)	(3	0	2)	2.175	2.427	0.90	84.7	67.4
[8	-2	13]	(2	8	0)	(-3	1	2)	2.175	2.405	0.90	87.8	65.7
[8	-2	-11]	(2	8	0)	(3	1	2)	2.175	2.405	0.90	77.2	69.1
[8	-2	7]	(2	8	0)	(-1	3	2)	2.175	2.394	0.91	68.9	76.4
[8	-2	-1]	(2	8	0)	(1	3	2)	2.175	2.394	0.91	65.1	88.0
[4	-1	6]	(2	8	0)	(3	6	-1)	2.175	2.394	0.91	29.4	67.4
[4	-1	-7]	(2	8	0)	(3	-2	2)	2.175	2.342	0.93	80.5	64.1
[4	-1	-5]	(2	8	0)	(3	2	2)	2.175	2.342	0.93	69.9	70.9
[8	-2	11]	(2	8	0)	(-2	3	2)	2.175	2.336	0.93	71.3	69.1
[8	-2	-5]	(2	8	0)	(2	3	2)	2.175	2.336	0.93	63.9	80.2
[4	-1	7]	(2	8	0)	(0	7	1)	2.175	2.301	0.94	29.0	64.1
[4	-1	3]	(2	8	0)	(1	7	1)	2.175	2.284	0.95	26.2	78.2
[8	-2	17]	(2	8	0)	(-4	1	2)	2.175	2.274	0.96	89.5	59.5
[8	-2	15]	(2	8	0)	(4	1	-2)	2.175	2.274	0.96	76.2	62.5
[4	-1	2]	(2	8	0)	(0	4	2)	2.175	2.274	0.96	60.4	82.1
[4	-1	-10]	(2	8	0)	(4	6	1)	2.175	2.265	0.96	31.5	55.3
[4	-1	4]	(2	8	0)	(-1	4	2)	2.175	2.257	0.96	62.5	74.5
[4	-1	0]	(2	8	0)	(1	4	2)	2.175	2.257	0.96	58.7	90.0
[8	-2	15]	(2	8	0)	(-3	3	2)	2.175	2.248	0.97	73.7	62.5
[8	-2	-9]	(2	8	0)	(3	3	2)	2.175	2.248	0.97	63.1	72.7
[4	-1	-1]	(2	8	0)	(2	7	1)	2.175	2.233	0.97	25.1	86.0
[4	-1	-10]	(2	8	0)	(5	0	2)	2.175	2.149	1.01	82.2	55.3
[8	-2	19]	(2	8	0)	(-4	3	2)	2.175	2.140	1.02	76.1	56.6
[8	-2	-13]	(2	8	0)	(4	3	2)	2.175	2.140	1.02	62.8	65.7
[8	-2	-21]	(2	8	0)	(5	-1	2)	2.175	2.134	1.02	88.9	53.9
[8	-2	-19]	(2	8	0)	(5	1	2)	2.175	2.134	1.02	75.4	56.6
[4	-1	8]	(2	8	0)	(-3	4	2)	2.175	2.133	1.02	67.5	61.0
[4	-1	-4]	(2	8	0)	(3	4	2)	2.175	2.133	1.02	57.0	74.5
[4	-1	-14]	(2	8	0)	(5	6	1)	2.175	2.126	1.02	34.1	45.8
[8	-2	9]	(2	8	0)	(-1	5	2)	2.175	2.111	1.03	56.9	72.7
[8	-2	1]	(2	8	0)	(1	5	2)	2.175	2.111	1.03	53.1	88.0
[4	-1	11]	(2	8	0)	(-5	2	2)	2.175	2.090	1.04	84.6	52.7
[4	-1	-9]	(2	8	0)	(5	2	2)	2.175	2.090	1.04	68.9	58.0
[8	-2	13]	(2	8	0)	(-2	5	2)	2.175	2.071	1.05	59.4	65.7
[8	-2	-3]	(2	8	0)	(2	5	2)	2.175	2.071	1.05	52.1	84.1
[4	-1	-9]	(2	8	0)	(4	7	1)	2.175	2.060	1.06	27.4	58.0
[4	-1	12]	(2	8	0)	(-1	8	1)	2.175	2.047	1.06	30.3	50.2
[4	-1	4]	(2	8	0)	(1	8	1)	2.175	2.047	1.06	23.7	74.5
[8	-2	23]	(2	8	0)	(-5	3	2)	2.175	2.022	1.08	78.4	51.4
[8	-2	-17]	(2	8	0)	(5	3	2)	2.175	2.022	1.08	62.8	59.5
[4	-1	0]	(2	8	0)	(2	8	-1)	2.175	2.011	1.08	22.4	90.0
[8	-2	17]	(2	8	0)	(-3	5	2)	2.175	2.009	1.08	62.0	59.5
[8	-2	7]	(2	8	0)	(3	5	-2)	2.175	2.009	1.08	51.5	76.4
[8	-2	-25]	(2	8	0)	(6	-1	2)	2.175	1.993	1.09	87.5	49.1
[8	-2	-23]	(2	8	0)	(6	1	2)	2.175	1.993	1.09	74.9	51.4
[4	-1	5]	(2	8	0)	(-1	6	2)	2.175	1.966	1.11	52.0	70.9
[4	-1	1]	(2	8	0)	(1	6	2)	2.175	1.966	1.11	48.3	86.0
[4	-1	-13]	(2	8	0)	(5	7	1)	2.175	1.954	1.11	29.9	48.0

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[4	-1	4]	(2	8	0)	(3	8	-1)	2.175	1.954	1.11	22.6	74.5
[4	-1	-12]	(2	8	0)	(5	-4	2)	2.175	1.937	1.12	72.7	50.2
[4	-1	-8]	(2	8	0)	(5	4	2)	2.175	1.937	1.12	57.1	61.0
[8	-2	21]	(2	8	0)	(-4	5	2)	2.175	1.931	1.13	64.8	53.9
[8	-2	-11]	(2	8	0)	(4	5	2)	2.175	1.931	1.13	51.5	69.1
[8	-2	27]	(2	8	0)	(-6	3	2)	2.175	1.901	1.14	80.5	46.9
[8	-2	-21]	(2	8	0)	(6	3	2)	2.175	1.901	1.14	63.0	53.9
[4	-1	-9]	(2	8	0)	(-3	6	-2)	2.175	1.883	1.16	57.2	58.0
[4	-1	3]	(2	8	0)	(-3	-6	2)	2.175	1.883	1.16	46.8	78.2
[4	-1	-8]	(2	8	0)	(4	8	1)	2.175	1.882	1.16	24.1	61.0
[4	-1	-14]	(2	8	0)	(7	0	2)	2.175	1.868	1.16	80.4	45.8
[4	-1	9]	(2	8	0)	(0	9	1)	2.175	1.861	1.17	24.6	58.0
[8	-2	-27]	(2	8	0)	(7	1	2)	2.175	1.858	1.17	74.6	46.9
[4	-1	13]	(2	8	0)	(-1	9	1)	2.175	1.852	1.17	28.2	48.0
[4	-1	5]	(2	8	0)	(1	9	1)	2.175	1.852	1.17	21.8	70.9
[8	-2	25]	(2	8	0)	(-5	5	2)	2.175	1.843	1.18	67.5	49.1
[8	-2	-15]	(2	8	0)	(5	5	2)	2.175	1.843	1.18	51.9	62.5
[4	-1	-13]	(2	8	0)	(7	2	2)	2.175	1.828	1.19	68.8	48.0
[8	-2	11]	(2	8	0)	(-1	7	2)	2.175	1.828	1.19	47.8	69.1
[8	-2	3]	(2	8	0)	(1	7	2)	2.175	1.828	1.19	44.1	84.1
[4	-1	1]	(2	8	0)	(2	9	1)	2.175	1.825	1.19	20.3	86.0
[8	-2	15]	(2	8	0)	(-2	7	2)	2.175	1.802	1.21	50.3	62.5
[8	-2	-1]	(2	8	0)	(2	7	2)	2.175	1.802	1.21	43.1	88.0
[4	-1	-12]	(2	8	0)	(5	8	1)	2.175	1.800	1.21	26.3	50.2
[8	-2	25]	(2	8	0)	(7	3	-2)	2.175	1.782	1.22	63.3	49.1
[4	-1	3]	(2	8	0)	(3	9	-1)	2.175	1.782	1.22	20.2	78.2
[8	-2	-19]	(2	8	0)	(3	-7	2)	2.175	1.760	1.24	53.0	56.6
[8	-2	5]	(2	8	0)	(3	7	-2)	2.175	1.760	1.24	42.6	80.2
[12	-3	4]	(2	8	0)	(-1	0	3)	2.175	1.752	1.24	88.7	84.7
[12	-3	1]	(2	8	0)	(0	1	3)	2.175	1.752	1.24	84.5	88.7
[8	-2	-19]	(2	8	0)	(6	5	2)	2.175	1.750	1.24	52.5	56.6
[12	-3	5]	(2	8	0)	(-1	1	3)	2.175	1.744	1.25	85.8	83.4
[4	-1	-1]	(2	8	0)	(1	1	3)	2.175	1.744	1.25	83.3	86.0
[4	-1	13]	(2	8	0)	(-5	6	2)	2.175	1.744	1.25	62.8	48.0
[4	-1	-7]	(2	8	0)	(5	6	2)	2.175	1.744	1.25	47.2	64.1
[12	-3	-8]	(2	8	0)	(2	0	3)	2.175	1.729	1.26	87.5	79.5
[4	-1	-7]	(2	8	0)	(4	9	1)	2.175	1.727	1.26	21.3	64.1
[4	-1	-12]	(2	8	0)	(7	4	2)	2.175	1.724	1.26	58.1	50.2
[4	-1	3]	(2	8	0)	(-2	1	3)	2.175	1.721	1.26	87.2	78.2
[12	-3	-7]	(2	8	0)	(2	1	3)	2.175	1.721	1.26	82.1	80.8
[4	-1	2]	(2	8	0)	(-1	2	3)	2.175	1.719	1.26	80.5	82.1
[12	-3	-2]	(2	8	0)	(1	2	3)	2.175	1.719	1.26	78.0	87.4
[8	-2	23]	(2	8	0)	(-4	7	2)	2.175	1.707	1.27	55.8	51.4
[8	-2	-9]	(2	8	0)	(4	7	2)	2.175	1.707	1.27	42.6	72.7
[4	-1	4]	(2	8	0)	(0	8	2)	2.175	1.707	1.27	42.1	74.5
[4	-1	6]	(2	8	0)	(-1	8	2)	2.175	1.700	1.28	44.2	67.4
[4	-1	2]	(2	8	0)	(1	8	2)	2.175	1.700	1.28	40.5	82.1
[12	-3	10]	(2	8	0)	(-2	2	3)	2.175	1.698	1.28	81.9	77.0

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[4	-1	-2]	(2	8	0)	(2	2	3)	2.175	1.698	1.28	76.8	82.1
[12	-3	7]	(2	8	0)	(-1	3	3)	2.175	1.681	1.29	75.4	80.8
[12	-3	-1]	(2	8	0)	(1	3	3)	2.175	1.681	1.29	72.8	88.7
[12	-3	-10]	(2	8	0)	(3	2	3)	2.175	1.663	1.31	75.9	77.0
[4	-1	-11]	(2	8	0)	(5	9	1)	2.175	1.663	1.31	23.3	52.7
[12	-3	11]	(2	8	0)	(-2	3	3)	2.175	1.661	1.31	76.8	75.7
[12	-3	-5]	(2	8	0)	(2	3	3)	2.175	1.661	1.31	71.8	83.4
[8	-2	-23]	(2	8	0)	(7	5	2)	2.175	1.656	1.31	53.4	51.4
[8	-2	27]	(2	8	0)	(-5	7	2)	2.175	1.645	1.32	58.6	46.9
[8	-2	-13]	(2	8	0)	(5	7	2)	2.175	1.645	1.32	43.1	65.7
[4	-1	-10]	(2	8	0)	(-3	8	-2)	2.175	1.645	1.32	49.3	55.3
[4	-1	2]	(2	8	0)	(-3	-8	2)	2.175	1.645	1.32	39.0	82.1
[12	-3	-16]	(2	8	0)	(4	0	3)	2.175	1.645	1.32	85.2	69.7
[12	-3	17]	(2	8	0)	(-4	1	3)	2.175	1.638	1.33	89.7	68.5
[4	-1	5]	(2	8	0)	(4	1	-3)	2.175	1.638	1.33	80.1	70.9
[12	-3	8]	(2	8	0)	(-1	4	3)	2.175	1.631	1.33	70.5	79.5
[4	-1	0]	(2	8	0)	(1	4	3)	2.175	1.631	1.33	68.0	90.0
[12	-3	-14]	(2	8	0)	(4	2	3)	2.175	1.618	1.34	75.1	72.1
[4	-1	4]	(2	8	0)	(-2	4	3)	2.175	1.613	1.35	72.0	74.5
[12	-3	-4]	(2	8	0)	(2	4	3)	2.175	1.613	1.35	67.0	84.7
[12	-3	-20]	(2	8	0)	(5	0	3)	2.175	1.589	1.37	84.2	65.2
[12	-3	19]	(2	8	0)	(-4	3	3)	2.175	1.586	1.37	79.8	66.3
[12	-3	-13]	(2	8	0)	(4	3	3)	2.175	1.586	1.37	70.2	73.3
[4	-1	-7]	(2	8	0)	(5	-1	3)	2.175	1.583	1.37	89.2	64.1
[12	-3	-19]	(2	8	0)	(5	1	3)	2.175	1.583	1.37	79.2	66.3
[4	-1	-11]	(2	8	0)	(7	6	2)	2.175	1.583	1.37	49.0	52.7
[12	-3	16]	(2	8	0)	(-3	4	3)	2.175	1.583	1.37	73.5	69.7
[12	-3	-8]	(2	8	0)	(3	4	3)	2.175	1.583	1.37	66.2	79.5
[8	-2	13]	(2	8	0)	(-1	9	2)	2.175	1.583	1.37	41.1	65.7
[8	-2	5]	(2	8	0)	(1	9	2)	2.175	1.583	1.37	37.5	80.2
[12	-3	5]	(2	8	0)	(0	5	3)	2.175	1.579	1.38	64.6	83.4
[8	-2	-17]	(2	8	0)	(6	7	2)	2.175	1.578	1.38	43.9	59.5
[4	-1	3]	(2	8	0)	(-1	5	3)	2.175	1.574	1.38	66.0	78.2
[12	-3	1]	(2	8	0)	(1	5	3)	2.175	1.574	1.38	63.4	88.7
[8	-2	17]	(2	8	0)	(-2	9	2)	2.175	1.566	1.39	43.5	59.5
[8	-2	1]	(2	8	0)	(2	9	2)	2.175	1.566	1.39	36.4	88.0
[12	-3	22]	(2	8	0)	(-5	2	3)	2.175	1.565	1.39	86.0	63.0
[4	-1	-6]	(2	8	0)	(5	2	3)	2.175	1.565	1.39	74.4	67.4
[8	-2	-27]	(2	8	0)	(8	5	2)	2.175	1.565	1.39	54.3	46.9
[12	-3	13]	(2	8	0)	(-2	5	3)	2.175	1.557	1.40	67.5	73.3
[4	-1	-1]	(2	8	0)	(2	5	3)	2.175	1.557	1.40	62.5	86.0
[4	-1	14]	(2	8	0)	(-5	8	2)	2.175	1.550	1.40	54.9	45.8
[4	-1	-6]	(2	8	0)	(5	8	2)	2.175	1.550	1.40	39.5	67.4
[12	-3	20]	(2	8	0)	(-4	4	3)	2.175	1.544	1.41	75.1	65.2
[4	-1	-4]	(2	8	0)	(4	4	3)	2.175	1.544	1.41	65.6	74.5
[8	-2	-21]	(2	8	0)	(-3	9	-2)	2.175	1.538	1.41	46.1	53.9
[8	-2	3]	(2	8	0)	(-3	-9	2)	2.175	1.538	1.41	35.9	84.1
[12	-3	23]	(2	8	0)	(-5	3	3)	2.175	1.536	1.42	81.2	62.0

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Anthophyllite (280) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[12	-3	-17]	(2	8	0)	(5	3	3)	2.175	1.536	1.42	69.6	68.5
[12	-3	17]	(2	8	0)	(-3	5	3)	2.175	1.530	1.42	69.1	68.5
[12	-3	7]	(2	8	0)	(3	5	-3)	2.175	1.530	1.42	61.7	80.8
[12	-3	-25]	(2	8	0)	(6	-1	3)	2.175	1.523	1.43	88.1	60.0
[12	-3	-23]	(2	8	0)	(6	1	3)	2.175	1.523	1.43	78.5	62.0
[12	-3	10]	(2	8	0)	(-1	6	3)	2.175	1.511	1.44	61.8	77.0
[12	-3	2]	(2	8	0)	(1	6	3)	2.175	1.511	1.44	59.2	87.4
[8	-2	-21]	(2	8	0)	(7	7	2)	2.175	1.508	1.44	45.0	53.9
[12	-3	26]	(2	8	0)	(-6	2	3)	2.175	1.507	1.44	87.2	59.0
[12	-3	-22]	(2	8	0)	(6	2	3)	2.175	1.507	1.44	73.8	63.0
[8	-2	-7]	(2	8	0)	(4	9	2)	2.175	1.502	1.45	35.8	76.4
[4	-1	8]	(2	8	0)	(-5	4	3)	2.175	1.498	1.45	76.7	61.0
[12	-3	-16]	(2	8	0)	(5	4	3)	2.175	1.498	1.45	65.1	69.7
[12	-3	14]	(2	8	0)	(-2	6	3)	2.175	1.496	1.45	63.3	72.1
[12	-3	-2]	(2	8	0)	(2	6	3)	2.175	1.496	1.45	58.3	87.4
[4	-1	7]	(2	8	0)	(-4	5	3)	2.175	1.495	1.45	70.7	64.1
[12	-3	-11]	(2	8	0)	(4	5	3)	2.175	1.495	1.45	61.2	75.7
[12	-3	-29]	(2	8	0)	(7	-1	3)	2.175	1.460	1.49	87.1	56.2
[4	-1	-9]	(2	8	0)	(7	1	3)	2.175	1.460	1.49	77.9	58.0
[8	-2	-11]	(2	8	0)	(5	9	2)	2.175	1.460	1.49	36.3	69.1
[12	-3	25]	(2	8	0)	(-5	5	3)	2.175	1.453	1.50	72.4	60.0
[4	-1	-5]	(2	8	0)	(5	5	3)	2.175	1.453	1.50	60.9	70.9
[12	-3	7]	(2	8	0)	(0	7	3)	2.175	1.450	1.50	56.6	80.8
[12	-3	28]	(2	8	0)	(-6	4	3)	2.175	1.446	1.50	78.2	57.1
[12	-3	-20]	(2	8	0)	(6	4	3)	2.175	1.446	1.50	64.9	65.2
[4	-1	10]	(2	8	0)	(-7	2	3)	2.175	1.446	1.50	88.4	55.3
[12	-3	26]	(2	8	0)	(7	2	-3)	2.175	1.446	1.50	73.4	59.0
[12	-3	-11]	(2	8	0)	(1	-7	3)	2.175	1.445	1.50	57.9	75.7
[4	-1	1]	(2	8	0)	(1	7	3)	2.175	1.445	1.50	55.4	86.0
[12	-3	22]	(2	8	0)	(-4	6	3)	2.175	1.440	1.51	66.7	63.0
[12	-3	-10]	(2	8	0)	(4	6	3)	2.175	1.440	1.51	57.1	77.0
[8	-2	-25]	(2	8	0)	(8	7	2)	2.175	1.438	1.51	46.1	49.1
[4	-1	-10]	(2	8	0)	(7	8	2)	2.175	1.434	1.52	41.4	55.3
[4	-1	5]	(2	8	0)	(-2	7	3)	2.175	1.432	1.52	59.5	70.9
[12	-3	-1]	(2	8	0)	(2	7	3)	2.175	1.432	1.52	54.5	88.7
[12	-3	31]	(2	8	0)	(-7	3	3)	2.175	1.423	1.53	84.0	54.4
[12	-3	-25]	(2	8	0)	(7	3	3)	2.175	1.423	1.53	69.0	60.0
[8	-2	-15]	(2	8	0)	(6	9	2)	2.175	1.412	1.54	37.1	62.5
[12	-3	-19]	(2	8	0)	(-3	7	-3)	2.175	1.411	1.54	61.1	66.3
[12	-3	5]	(2	8	0)	(3	7	-3)	2.175	1.411	1.54	53.8	83.4
[12	-3	-29]	(2	8	0)	(6	-5	3)	2.175	1.406	1.55	74.1	56.2
[12	-3	-19]	(2	8	0)	(6	5	3)	2.175	1.406	1.55	60.7	66.3
[12	-3	26]	(2	8	0)	(-5	6	3)	2.175	1.403	1.55	68.4	59.0
[12	-3	-14]	(2	8	0)	(5	6	3)	2.175	1.403	1.55	56.9	72.1
[12	-3	-32]	(2	8	0)	(8	0	3)	2.175	1.401	1.55	81.8	53.5
[4	-1	-11]	(2	8	0)	(8	-1	3)	2.175	1.396	1.56	86.2	52.7
[12	-3	-31]	(2	8	0)	(8	1	3)	2.175	1.396	1.56	77.4	54.4
[12	-3	32]	(2	8	0)	(-7	4	3)	2.175	1.392	1.56	79.7	53.5

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Anthophyllite (280) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[4	-1	-8]	(2	8	0)	(7	4	3)	2.175	1.392	1.56	64.8	61.0
[12	-3	34]	(2	8	0)	(-8	2	3)	2.175	1.384	1.57	89.5	51.8
[4	-1	-10]	(2	8	0)	(8	2	3)	2.175	1.384	1.57	73.1	55.3
[12	-3	23]	(2	8	0)	(-4	7	3)	2.175	1.383	1.57	62.9	62.0
[4	-1	-3]	(2	8	0)	(4	7	3)	2.175	1.383	1.57	53.4	78.2
[4	-1	4]	(2	8	0)	(-1	8	3)	2.175	1.379	1.58	54.4	74.5
[12	-3	4]	(2	8	0)	(1	8	3)	2.175	1.379	1.58	51.9	84.7
[12	-3	16]	(2	8	0)	(-2	8	3)	2.175	1.368	1.59	56.0	69.7
[4	-1	0]	(2	8	0)	(2	8	3)	2.175	1.368	1.59	51.0	90.0
[12	-3	35]	(2	8	0)	(-8	3	3)	2.175	1.363	1.60	85.2	51.0
[12	-3	-29]	(2	8	0)	(8	3	3)	2.175	1.363	1.60	68.9	56.2
[8	-2	-19]	(2	8	0)	(7	9	2)	2.175	1.362	1.60	38.1	56.6
[4	-1	9]	(2	8	0)	(-5	7	3)	2.175	1.350	1.61	64.7	58.0
[12	-3	-13]	(2	8	0)	(5	7	3)	2.175	1.350	1.61	53.2	73.3
[12	-3	-20]	(2	8	0)	(-3	8	-3)	2.175	1.350	1.61	57.7	65.2
[12	-3	4]	(2	8	0)	(-3	-8	3)	2.175	1.350	1.61	50.4	84.7
[4	-1	12]	(2	8	0)	(-8	4	3)	2.175	1.337	1.63	81.1	50.2
[12	-3	-28]	(2	8	0)	(8	4	3)	2.175	1.337	1.63	64.8	57.1
[12	-3	-37]	(2	8	0)	(9	-1	3)	2.175	1.333	1.63	85.4	49.5
[12	-3	-35]	(2	8	0)	(9	1	3)	2.175	1.333	1.63	77.0	51.0
[4	-1	8]	(2	8	0)	(-4	8	3)	2.175	1.325	1.64	59.4	61.0
[12	-3	-8]	(2	8	0)	(4	8	3)	2.175	1.325	1.64	50.0	79.5
[12	-3	-38]	(2	8	0)	(9	-2	3)	2.175	1.322	1.64	89.6	48.7
[12	-3	-34]	(2	8	0)	(9	2	3)	2.175	1.322	1.64	72.9	51.8
[4	-1	-1]	(2	8	0)	(1	0	4)	2.175	1.317	1.65	89.0	86.0
[12	-3	34]	(2	8	0)	(-7	6	3)	2.175	1.315	1.65	71.9	51.8
[12	-3	-22]	(2	8	0)	(7	6	3)	2.175	1.315	1.65	56.9	63.0
[12	-3	13]	(2	8	0)	(-1	9	3)	2.175	1.315	1.65	51.3	73.3
[12	-3	5]	(2	8	0)	(1	9	3)	2.175	1.315	1.65	48.8	83.4
[4	-1	-14]	(2	8	0)	(9	8	2)	2.175	1.313	1.66	43.9	45.8
[16	-4	5]	(2	8	0)	(-1	1	4)	2.175	1.313	1.66	86.9	85.0
[16	-4	-3]	(2	8	0)	(1	1	4)	2.175	1.313	1.66	85.0	87.0
[12	-3	31]	(2	8	0)	(-6	7	3)	2.175	1.312	1.66	66.5	54.4
[12	-3	-17]	(2	8	0)	(6	7	3)	2.175	1.312	1.66	53.2	68.5
[8	-2	-23]	(2	8	0)	(8	9	2)	2.175	1.309	1.66	39.4	51.4
[12	-3	17]	(2	8	0)	(-2	9	3)	2.175	1.305	1.67	52.8	68.5
[12	-3	1]	(2	8	0)	(2	9	3)	2.175	1.305	1.67	47.9	88.7
[12	-3	-37]	(2	8	0)	(-8	5	-3)	2.175	1.304	1.67	77.2	49.5
[4	-1	-9]	(2	8	0)	(8	5	3)	2.175	1.304	1.67	60.9	58.0
[16	-4	9]	(2	8	0)	(-2	1	4)	2.175	1.303	1.67	87.8	81.1
[16	-4	-7]	(2	8	0)	(2	1	4)	2.175	1.303	1.67	84.0	83.1
[8	-2	3]	(2	8	0)	(-1	2	4)	2.175	1.303	1.67	82.8	84.1
[8	-2	-1]	(2	8	0)	(1	2	4)	2.175	1.303	1.67	80.9	88.0
[12	-3	28]	(2	8	0)	(-5	8	3)	2.175	1.296	1.68	61.3	57.1
[4	-1	-4]	(2	8	0)	(5	8	3)	2.175	1.296	1.68	49.8	74.5
[4	-1	-3]	(2	8	0)	(3	0	4)	2.175	1.291	1.68	87.2	78.2
[16	-4	13]	(2	8	0)	(-3	1	4)	2.175	1.287	1.69	88.8	77.3
[16	-4	-11]	(2	8	0)	(3	1	4)	2.175	1.287	1.69	83.2	79.2

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[16	-4	7]	(2	8	0)	(-1	3	4)	2.175	1.286	1.69	78.9	83.1
[16	-4	-1]	(2	8	0)	(1	3	4)	2.175	1.286	1.69	77.0	89.0
[12	-3	40]	(2	8	0)	(-9	4	3)	2.175	1.281	1.70	82.4	47.2
[12	-3	-32]	(2	8	0)	(9	4	3)	2.175	1.281	1.70	64.9	53.5
[8	-2	7]	(2	8	0)	(-3	2	4)	2.175	1.278	1.70	84.8	76.4
[8	-2	-5]	(2	8	0)	(3	2	4)	2.175	1.278	1.70	79.2	80.2
[16	-4	11]	(2	8	0)	(-2	3	4)	2.175	1.277	1.70	79.9	79.2
[16	-4	-5]	(2	8	0)	(2	3	4)	2.175	1.277	1.70	76.1	85.0
[12	-3	35]	(2	8	0)	(-7	7	3)	2.175	1.271	1.71	68.3	51.0
[4	-1	-7]	(2	8	0)	(7	7	3)	2.175	1.271	1.71	53.4	64.1
[12	-3	25]	(2	8	0)	(-4	9	3)	2.175	1.268	1.72	56.3	60.0
[12	-3	-7]	(2	8	0)	(4	9	3)	2.175	1.268	1.72	46.9	80.8
[16	-4	17]	(2	8	0)	(-4	1	4)	2.175	1.266	1.72	89.7	73.6
[16	-4	-15]	(2	8	0)	(4	1	4)	2.175	1.266	1.72	82.4	75.4
[4	-1	0]	(2	8	0)	(1	4	4)	2.175	1.263	1.72	73.1	90.0
[12	-3	32]	(2	8	0)	(-6	8	3)	2.175	1.262	1.72	63.1	53.5
[12	-3	-16]	(2	8	0)	(6	8	3)	2.175	1.262	1.72	49.9	69.7
[16	-4	15]	(2	8	0)	(-3	3	4)	2.175	1.262	1.72	80.9	75.4
[16	-4	-9]	(2	8	0)	(3	3	4)	2.175	1.262	1.72	75.3	81.1
[8	-2	-27]	(2	8	0)	(9	9	2)	2.175	1.257	1.73	40.7	46.9
[12	-3	41]	(2	8	0)	(-9	5	3)	2.175	1.252	1.74	78.7	46.5
[12	-3	31]	(2	8	0)	(9	5	-3)	2.175	1.252	1.74	61.1	54.4
[4	-1	-5]	(2	8	0)	(5	0	4)	2.175	1.243	1.75	85.5	70.9
[12	-3	29]	(2	8	0)	(-5	9	3)	2.175	1.242	1.75	58.1	56.2
[12	-3	-11]	(2	8	0)	(5	9	3)	2.175	1.242	1.75	46.7	75.7
[16	-4	19]	(2	8	0)	(-4	3	4)	2.175	1.242	1.75	82.0	71.8
[16	-4	-13]	(2	8	0)	(4	3	4)	2.175	1.242	1.75	74.6	77.3
[16	-4	-21]	(2	8	0)	(5	-1	4)	2.175	1.240	1.75	89.3	70.0
[16	-4	-19]	(2	8	0)	(5	1	4)	2.175	1.240	1.75	81.6	71.8
[4	-1	4]	(2	8	0)	(-3	4	4)	2.175	1.240	1.75	77.2	74.5
[4	-1	-2]	(2	8	0)	(3	4	4)	2.175	1.240	1.75	71.5	82.1
[16	-4	9]	(2	8	0)	(-1	5	4)	2.175	1.236	1.76	71.3	81.1
[16	-4	1]	(2	8	0)	(1	5	4)	2.175	1.236	1.76	69.4	89.0
[8	-2	11]	(2	8	0)	(-5	2	4)	2.175	1.231	1.77	86.8	69.1
[8	-2	-9]	(2	8	0)	(5	2	4)	2.175	1.231	1.77	77.8	72.7
[4	-1	13]	(2	8	0)	(-8	7	3)	2.175	1.228	1.77	70.0	48.0
[12	-3	-25]	(2	8	0)	(8	7	3)	2.175	1.228	1.77	53.7	60.0
[16	-4	13]	(2	8	0)	(-2	5	4)	2.175	1.228	1.77	72.4	77.3
[16	-4	-3]	(2	8	0)	(2	5	4)	2.175	1.228	1.77	68.6	87.0
[4	-1	12]	(2	8	0)	(-7	8	3)	2.175	1.226	1.77	65.0	50.2
[12	-3	-20]	(2	8	0)	(7	8	3)	2.175	1.226	1.77	50.1	65.2
[16	-4	-17]	(2	8	0)	(5	3	4)	2.175	1.217	1.79	74.0	73.6
[16	-4	17]	(2	8	0)	(-3	5	4)	2.175	1.214	1.79	73.5	73.6
[16	-4	7]	(2	8	0)	(3	5	-4)	2.175	1.214	1.79	67.9	83.1
[16	-4	-25]	(2	8	0)	(6	-1	4)	2.175	1.211	1.80	88.5	66.6
[16	-4	-23]	(2	8	0)	(6	1	4)	2.175	1.211	1.80	80.9	68.3
[8	-2	5]	(2	8	0)	(-1	6	4)	2.175	1.205	1.81	67.8	80.2
[8	-2	1]	(2	8	0)	(1	6	4)	2.175	1.205	1.81	65.9	88.0

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Anthophyllite (280) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[4	-1	6]	(2	8	0)	(-5	4	4)	2.175	1.198	1.82	79.4	67.4
[4	-1	-4]	(2	8	0)	(5	4	4)	2.175	1.198	1.82	70.3	74.5
[16	-4	21]	(2	8	0)	(-4	5	4)	2.175	1.196	1.82	74.7	70.0
[16	-4	-11]	(2	8	0)	(4	5	4)	2.175	1.196	1.82	67.3	79.2
[16	-4	27]	(2	8	0)	(-6	3	4)	2.175	1.189	1.83	84.1	64.9
[16	-4	-21]	(2	8	0)	(6	3	4)	2.175	1.189	1.83	73.5	70.0
[12	-3	40]	(2	8	0)	(-8	8	3)	2.175	1.187	1.83	66.7	47.2
[4	-1	-8]	(2	8	0)	(8	8	3)	2.175	1.187	1.83	50.5	61.0
[12	-3	43]	(2	8	0)	(-9	7	3)	2.175	1.185	1.84	71.7	45.2
[12	-3	29]	(2	8	0)	(9	7	-3)	2.175	1.185	1.84	54.1	56.2
[8	-2	-9]	(2	8	0)	(3	-6	4)	2.175	1.185	1.84	70.1	72.7
[8	-2	3]	(2	8	0)	(3	6	-4)	2.175	1.185	1.84	64.5	84.1
[4	-1	7]	(2	8	0)	(-7	0	4)	2.175	1.181	1.84	84.0	64.1
[12	-3	37]	(2	8	0)	(-7	9	3)	2.175	1.179	1.84	61.9	49.5
[12	-3	-19]	(2	8	0)	(7	9	3)	2.175	1.179	1.84	47.1	66.3
[16	-4	-29]	(2	8	0)	(7	-1	4)	2.175	1.178	1.85	87.7	63.3
[16	-4	-27]	(2	8	0)	(7	1	4)	2.175	1.178	1.85	80.3	64.9
[16	-4	25]	(2	8	0)	(-5	5	4)	2.175	1.174	1.85	75.9	66.6
[16	-4	-15]	(2	8	0)	(5	5	4)	2.175	1.174	1.85	66.8	75.4
[8	-2	15]	(2	8	0)	(-7	2	4)	2.175	1.171	1.86	88.7	62.5
[8	-2	-13]	(2	8	0)	(7	2	4)	2.175	1.171	1.86	76.6	65.7
[16	-4	11]	(2	8	0)	(-1	7	4)	2.175	1.171	1.86	64.5	79.2
[16	-4	3]	(2	8	0)	(1	7	4)	2.175	1.171	1.86	62.6	87.0
[16	-4	-1]	(2	8	0)	(2	7	4)	2.175	1.164	1.87	61.8	89.0
[16	-4	31]	(2	8	0)	(-7	3	4)	2.175	1.158	1.88	85.1	61.7
[16	-4	-25]	(2	8	0)	(7	3	4)	2.175	1.158	1.88	73.0	66.6
[16	-4	19]	(2	8	0)	(-3	7	4)	2.175	1.152	1.89	66.8	71.8
[16	-4	5]	(2	8	0)	(3	7	-4)	2.175	1.152	1.89	61.2	85.0
[16	-4	29]	(2	8	0)	(-6	5	4)	2.175	1.149	1.89	77.0	63.3
[16	-4	-19]	(2	8	0)	(6	5	4)	2.175	1.149	1.89	66.4	71.8
[12	-3	-28]	(2	8	0)	(9	8	3)	2.175	1.148	1.89	51.0	57.1
[8	-2	13]	(2	8	0)	(-5	6	4)	2.175	1.148	1.90	72.5	65.7
[8	-2	-7]	(2	8	0)	(5	6	4)	2.175	1.148	1.90	63.5	76.4
[12	-3	41]	(2	8	0)	(-8	9	3)	2.175	1.145	1.90	63.7	46.5
[12	-3	-23]	(2	8	0)	(8	9	3)	2.175	1.145	1.90	47.5	62.0
[16	-4	-33]	(2	8	0)	(8	-1	4)	2.175	1.144	1.90	86.9	60.2
[16	-4	-31]	(2	8	0)	(8	1	4)	2.175	1.144	1.90	79.7	61.7
[4	-1	8]	(2	8	0)	(-7	4	4)	2.175	1.142	1.90	81.6	61.0
[4	-1	-6]	(2	8	0)	(7	4	4)	2.175	1.142	1.90	69.5	67.4
[16	-4	23]	(2	8	0)	(-4	7	4)	2.175	1.137	1.91	68.0	68.3
[16	-4	-9]	(2	8	0)	(4	7	4)	2.175	1.137	1.91	60.7	81.1
[4	-1	1]	(2	8	0)	(1	8	4)	2.175	1.135	1.92	59.5	86.0
[16	-4	35]	(2	8	0)	(-8	3	4)	2.175	1.126	1.93	86.0	58.7
[16	-4	-29]	(2	8	0)	(8	3	4)	2.175	1.126	1.93	72.7	63.3
[16	-4	-33]	(2	8	0)	(7	-5	4)	2.175	1.121	1.94	78.2	60.2
[16	-4	-23]	(2	8	0)	(7	5	4)	2.175	1.121	1.94	66.2	68.3
[16	-4	27]	(2	8	0)	(-5	7	4)	2.175	1.118	1.95	69.3	64.9
[16	-4	-13]	(2	8	0)	(5	7	4)	2.175	1.118	1.95	60.3	77.3

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a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[4	-1	-5]	(2	8	0)	(-3	8	-4)	2.175	1.118	1.95	63.7	70.9
[4	-1	1]	(2	8	0)	(-3	-8	4)	2.175	1.118	1.95	58.1	86.0
[4	-1	-9]	(2	8	0)	(9	0	4)	2.175	1.111	1.96	82.7	58.0
[8	-2	-19]	(2	8	0)	(9	-2	4)	2.175	1.102	1.97	89.6	56.6
[8	-2	-17]	(2	8	0)	(9	2	4)	2.175	1.102	1.97	75.8	59.5
[8	-2	17]	(2	8	0)	(-7	6	4)	2.175	1.098	1.98	74.9	59.5
[8	-2	-11]	(2	8	0)	(7	6	4)	2.175	1.098	1.98	62.9	69.1
[16	-4	13]	(2	8	0)	(-1	9	4)	2.175	1.098	1.98	58.5	77.3
[16	-4	5]	(2	8	0)	(1	9	4)	2.175	1.098	1.98	56.6	85.0
[16	-4	31]	(2	8	0)	(-6	7	4)	2.175	1.096	1.98	70.5	61.7
[16	-4	-17]	(2	8	0)	(6	7	4)	2.175	1.096	1.98	60.0	73.6
[16	-4	17]	(2	8	0)	(-2	9	4)	2.175	1.092	1.99	59.6	73.6
[16	-4	1]	(2	8	0)	(2	9	4)	2.175	1.092	1.99	55.8	89.0
[16	-4	39]	(2	8	0)	(-9	3	4)	2.175	1.092	1.99	87.0	55.9
[16	-4	-33]	(2	8	0)	(9	3	4)	2.175	1.092	1.99	72.4	60.2
[16	-4	37]	(2	8	0)	(-8	5	4)	2.175	1.092	1.99	79.3	57.3
[16	-4	-27]	(2	8	0)	(8	5	4)	2.175	1.092	1.99	66.0	64.9
[4	-1	7]	(2	8	0)	(-5	8	4)	2.175	1.087	2.00	66.2	64.1
[4	-1	-3]	(2	8	0)	(5	8	4)	2.175	1.087	2.00	57.2	78.2
[16	-4	21]	(2	8	0)	(-3	9	4)	2.175	1.083	2.01	60.8	70.0
[16	-4	-3]	(2	8	0)	(3	9	4)	2.175	1.083	2.01	55.2	87.0
[4	-1	10]	(2	8	0)	(-9	4	4)	2.175	1.078	2.02	83.6	55.3
[4	-1	-8]	(2	8	0)	(9	4	4)	2.175	1.078	2.02	69.1	61.0
[16	-4	35]	(2	8	0)	(-7	7	4)	2.175	1.072	2.03	71.8	58.7
[16	-4	-21]	(2	8	0)	(7	7	4)	2.175	1.072	2.03	59.8	70.0
[16	-4	25]	(2	8	0)	(-4	9	4)	2.175	1.070	2.03	62.1	66.6
[16	-4	-7]	(2	8	0)	(4	9	4)	2.175	1.070	2.03	54.7	83.1
[16	-4	41]	(2	8	0)	(-9	5	4)	2.175	1.061	2.05	80.4	54.6
[16	-4	-31]	(2	8	0)	(9	5	4)	2.175	1.061	2.05	65.8	61.7
[20	-5	-4]	(2	8	0)	(1	0	5)	2.175	1.054	2.06	89.2	86.8
[16	-4	29]	(2	8	0)	(-5	9	4)	2.175	1.054	2.06	63.4	63.3
[16	-4	-11]	(2	8	0)	(5	9	4)	2.175	1.054	2.06	54.4	79.2
[20	-5	1]	(2	8	0)	(0	1	5)	2.175	1.054	2.06	86.7	89.2
[4	-1	1]	(2	8	0)	(-1	1	5)	2.175	1.052	2.07	87.5	86.0
[20	-5	-3]	(2	8	0)	(1	1	5)	2.175	1.052	2.07	86.0	87.6
[20	-5	-8]	(2	8	0)	(2	0	5)	2.175	1.049	2.07	88.5	83.7
[20	-5	9]	(2	8	0)	(-2	1	5)	2.175	1.047	2.08	88.3	82.9
[20	-5	-7]	(2	8	0)	(2	1	5)	2.175	1.047	2.08	85.2	84.5
[20	-5	6]	(2	8	0)	(-1	2	5)	2.175	1.047	2.08	84.2	85.2
[20	-5	-2]	(2	8	0)	(1	2	5)	2.175	1.047	2.08	82.7	88.4
[16	-4	39]	(2	8	0)	(-8	7	4)	2.175	1.046	2.08	73.1	55.9
[16	-4	-25]	(2	8	0)	(8	7	4)	2.175	1.046	2.08	59.7	66.6
[4	-1	9]	(2	8	0)	(-7	8	4)	2.175	1.044	2.08	68.9	58.0
[4	-1	-5]	(2	8	0)	(7	8	4)	2.175	1.044	2.08	56.9	70.9
[4	-1	2]	(2	8	0)	(-2	2	5)	2.175	1.042	2.09	85.0	82.1
[20	-5	-6]	(2	8	0)	(2	2	5)	2.175	1.042	2.09	82.0	85.2
[8	-2	21]	(2	8	0)	(-9	6	4)	2.175	1.041	2.09	77.3	53.9
[8	-2	-15]	(2	8	0)	(9	6	4)	2.175	1.041	2.09	62.7	62.5

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Anthophyllite (280) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[20	-5	-12]	(2	8	0)	(3	0	5)	2.175	1.041	2.09	87.7	80.6
[20	-5	3]	(2	8	0)	(0	3	5)	2.175	1.040	2.09	80.2	87.6
[20	-5	13]	(2	8	0)	(-3	1	5)	2.175	1.039	2.09	89.0	79.8
[20	-5	-11]	(2	8	0)	(3	1	5)	2.175	1.039	2.09	84.5	81.3
[20	-5	7]	(2	8	0)	(-1	3	5)	2.175	1.038	2.09	81.0	84.5
[20	-5	-1]	(2	8	0)	(1	3	5)	2.175	1.038	2.09	79.5	89.2
[16	-4	33]	(2	8	0)	(-6	9	4)	2.175	1.036	2.10	64.7	60.2
[16	-4	-15]	(2	8	0)	(6	9	4)	2.175	1.036	2.10	54.2	75.4
[20	-5	14]	(2	8	0)	(-3	2	5)	2.175	1.034	2.10	85.8	79.0
[4	-1	-2]	(2	8	0)	(3	2	5)	2.175	1.034	2.10	81.3	82.1
[20	-5	11]	(2	8	0)	(-2	3	5)	2.175	1.033	2.10	81.8	81.3
[4	-1	-1]	(2	8	0)	(2	3	5)	2.175	1.033	2.10	78.8	86.0
[20	-5	-16]	(2	8	0)	(4	0	5)	2.175	1.030	2.11	87.0	77.5
[20	-5	17]	(2	8	0)	(-4	1	5)	2.175	1.028	2.12	89.8	76.7
[4	-1	-3]	(2	8	0)	(4	1	5)	2.175	1.028	2.12	83.8	78.2
[20	-5	8]	(2	8	0)	(-1	4	5)	2.175	1.026	2.12	77.9	83.7
[4	-1	0]	(2	8	0)	(1	4	5)	2.175	1.026	2.12	76.4	90.0
[4	-1	3]	(2	8	0)	(-3	3	5)	2.175	1.025	2.12	82.6	78.2
[20	-5	-9]	(2	8	0)	(3	3	5)	2.175	1.025	2.12	78.1	82.9
[20	-5	18]	(2	8	0)	(-4	2	5)	2.175	1.023	2.13	86.6	76.0
[20	-5	-14]	(2	8	0)	(4	2	5)	2.175	1.023	2.13	80.6	79.0
[20	-5	12]	(2	8	0)	(-2	4	5)	2.175	1.021	2.13	78.7	80.6
[20	-5	-4]	(2	8	0)	(2	4	5)	2.175	1.021	2.13	75.7	86.8
[16	-4	43]	(2	8	0)	(-9	7	4)	2.175	1.019	2.13	74.3	53.3
[16	-4	29]	(2	8	0)	(9	7	-4)	2.175	1.019	2.13	59.8	63.3
[16	-4	37]	(2	8	0)	(-7	9	4)	2.175	1.015	2.14	66.1	57.3
[16	-4	-19]	(2	8	0)	(7	9	4)	2.175	1.015	2.14	54.1	71.8
[20	-5	19]	(2	8	0)	(-4	3	5)	2.175	1.015	2.14	83.5	75.2
[20	-5	-13]	(2	8	0)	(4	3	5)	2.175	1.015	2.14	77.5	79.8
[20	-5	-21]	(2	8	0)	(5	-1	5)	2.175	1.014	2.15	89.5	73.8
[20	-5	-19]	(2	8	0)	(5	1	5)	2.175	1.014	2.15	83.1	75.2
[20	-5	16]	(2	8	0)	(-3	4	5)	2.175	1.014	2.15	79.5	77.5
[20	-5	-8]	(2	8	0)	(3	4	5)	2.175	1.014	2.15	75.0	83.7
[20	-5	9]	(2	8	0)	(-1	5	5)	2.175	1.011	2.15	74.8	82.9
[20	-5	1]	(2	8	0)	(1	5	5)	2.175	1.011	2.15	73.3	89.2
[20	-5	22]	(2	8	0)	(-5	2	5)	2.175	1.009	2.16	87.4	73.0
[20	-5	-18]	(2	8	0)	(5	2	5)	2.175	1.009	2.16	80.0	76.0
[20	-5	13]	(2	8	0)	(-2	5	5)	2.175	1.007	2.16	75.7	79.8
[20	-5	-3]	(2	8	0)	(2	5	5)	2.175	1.007	2.16	72.6	87.6
[4	-1	4]	(2	8	0)	(-4	4	5)	2.175	1.003	2.17	80.4	74.5
[20	-5	-12]	(2	8	0)	(4	4	5)	2.175	1.003	2.17	74.4	80.6
[20	-5	23]	(2	8	0)	(-5	3	5)	2.175	1.001	2.17	84.3	72.3
[20	-5	-17]	(2	8	0)	(5	3	5)	2.175	1.001	2.17	76.9	76.7

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Anthophyllite (830) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-8	-3]	(8	3	0)	(1	0	1)	2.156	5.077	0.42	75.2	84.1
[3	-8	8]	(8	3	0)	(0	1	1)	2.156	5.064	0.43	84.1	74.6
[3	-8	-11]	(8	3	0)	(1	-1	1)	2.156	4.885	0.44	81.5	69.3
[3	-8	5]	(8	3	0)	(1	1	1)	2.156	4.885	0.44	69.8	80.2
[3	-8	-14]	(8	3	0)	(2	-1	1)	2.156	4.442	0.49	69.0	64.3
[3	-8	2]	(8	3	0)	(2	1	1)	2.156	4.442	0.49	57.5	86.1
[3	-8	-19]	(8	3	0)	(1	-2	1)	2.156	4.416	0.49	87.5	56.8
[3	-8	13]	(8	3	0)	(1	2	1)	2.156	4.416	0.49	66.4	65.9
[3	-8	-22]	(8	3	0)	(2	-2	1)	2.156	4.081	0.53	75.7	52.9
[3	-8	10]	(8	3	0)	(2	2	1)	2.156	4.081	0.53	54.8	71.0
[3	-8	-9]	(8	3	0)	(3	0	1)	2.156	4.011	0.54	52.7	72.8
[3	-8	24]	(8	3	0)	(0	3	1)	2.156	3.954	0.55	76.1	50.5
[3	-8	-17]	(8	3	0)	(3	-1	1)	2.156	3.914	0.55	59.2	59.7
[3	-8	-1]	(8	3	0)	(3	1	1)	2.156	3.914	0.55	47.9	88.0
[3	-8	27]	(8	3	0)	(-1	3	1)	2.156	3.867	0.56	87.7	47.1
[3	-8	21]	(8	3	0)	(1	3	1)	2.156	3.867	0.56	64.6	54.2
[3	-8	25]	(8	3	0)	(3	-2	-1)	2.156	3.660	0.59	66.1	49.3
[3	-8	-7]	(8	3	0)	(-3	-2	1)	2.156	3.660	0.59	45.5	76.5
[3	-8	18]	(8	3	0)	(2	3	1)	2.156	3.636	0.59	54.1	58.2
[3	-8	-12]	(8	3	0)	(4	0	1)	2.156	3.479	0.62	45.5	67.6
[3	-8	-20]	(8	3	0)	(4	-1	1)	2.156	3.415	0.63	51.7	55.5
[3	-8	-4]	(8	3	0)	(4	1	1)	2.156	3.415	0.63	40.8	82.2
[3	-8	-29]	(8	3	0)	(1	4	-1)	2.156	3.357	0.64	63.9	45.1
[3	-8	-15]	(8	3	0)	(-3	-3	1)	2.156	3.329	0.65	45.2	62.7
[3	-8	-28]	(8	3	0)	(4	-2	1)	2.156	3.243	0.66	58.5	46.1
[3	-8	4]	(8	3	0)	(4	2	1)	2.156	3.243	0.66	38.3	82.2
[3	-8	26]	(8	3	0)	(2	4	1)	2.156	3.203	0.67	54.4	48.2
[3	-8	-15]	(8	3	0)	(5	0	1)	2.156	3.030	0.71	40.2	62.7
[3	-8	12]	(8	3	0)	(4	3	1)	2.156	3.005	0.72	38.0	67.6
[3	-8	-23]	(8	3	0)	(5	-1	1)	2.156	2.988	0.72	46.2	51.7
[3	-8	-7]	(8	3	0)	(5	1	1)	2.156	2.988	0.72	35.6	76.5
[3	-8	-23]	(8	3	0)	(3	4	-1)	2.156	2.987	0.72	46.1	51.7
[3	-8	-1]	(8	3	0)	(-5	-2	1)	2.156	2.870	0.75	32.9	88.0
[3	-8	20]	(8	3	0)	(4	4	1)	2.156	2.747	0.79	39.1	55.5
[3	-8	9]	(8	3	0)	(5	3	1)	2.156	2.702	0.80	32.4	72.8
[3	-8	-18]	(8	3	0)	(6	0	1)	2.156	2.663	0.81	36.4	58.2
[3	-8	0]	(8	3	0)	(0	0	2)	2.156	2.640	0.82	90.0	90.0
[3	-8	26]	(8	3	0)	(6	-1	-1)	2.156	2.634	0.82	42.0	48.2
[3	-8	-10]	(8	3	0)	(6	1	1)	2.156	2.634	0.82	31.8	71.0
[6	-16	-3]	(8	3	0)	(1	0	2)	2.156	2.614	0.83	82.4	87.0
[6	-16	-11]	(8	3	0)	(1	-1	2)	2.156	2.586	0.83	85.5	79.3
[6	-16	5]	(8	3	0)	(1	1	2)	2.156	2.586	0.83	79.5	85.1
[3	-8	-2]	(8	3	0)	(6	2	1)	2.156	2.552	0.84	29.0	86.1
[3	-8	-7]	(8	3	0)	(2	-1	2)	2.156	2.513	0.86	78.3	76.5
[3	-8	1]	(8	3	0)	(2	1	2)	2.156	2.513	0.86	72.3	88.0
[3	-8	17]	(8	3	0)	(5	4	1)	2.156	2.509	0.86	33.4	59.7
[6	-16	-19]	(8	3	0)	(1	-2	2)	2.156	2.509	0.86	88.6	71.9
[6	-16	13]	(8	3	0)	(1	2	2)	2.156	2.509	0.86	76.8	77.4

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Anthophyllite (830) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-8	28]	(8	3	0)	(4	5	1)	2.156	2.495	0.86	41.0	46.1
[3	-8	6]	(8	3	0)	(6	3	1)	2.156	2.431	0.89	28.0	78.3
[6	-16	-9]	(8	3	0)	(3	0	2)	2.156	2.427	0.89	68.5	81.2
[6	-16	-17]	(8	3	0)	(3	-1	2)	2.156	2.405	0.90	71.6	73.7
[6	-16	-1]	(8	3	0)	(3	1	2)	2.156	2.405	0.90	65.7	89.0
[6	-16	27]	(8	3	0)	(-1	3	2)	2.156	2.394	0.90	88.6	65.1
[6	-16	21]	(8	3	0)	(1	3	2)	2.156	2.394	0.90	74.6	70.2
[3	-8	-21]	(8	3	0)	(7	0	1)	2.156	2.363	0.91	33.5	54.2
[3	-8	-29]	(8	3	0)	(7	-1	1)	2.156	2.343	0.92	38.8	45.1
[3	-8	-13]	(8	3	0)	(7	1	1)	2.156	2.343	0.92	29.1	65.9
[6	-16	-25]	(8	3	0)	(3	-2	2)	2.156	2.342	0.92	75.0	66.7
[6	-16	7]	(8	3	0)	(3	2	2)	2.156	2.342	0.92	63.3	83.1
[3	-8	-15]	(8	3	0)	(2	-3	2)	2.156	2.336	0.92	84.6	62.7
[3	-8	9]	(8	3	0)	(2	3	2)	2.156	2.336	0.92	67.9	72.8
[3	-8	25]	(8	3	0)	(5	5	1)	2.156	2.313	0.93	35.3	49.3
[3	-8	-5]	(8	3	0)	(7	2	1)	2.156	2.285	0.94	26.0	80.2
[3	-8	-10]	(8	3	0)	(4	-1	2)	2.156	2.274	0.95	65.6	71.0
[3	-8	-2]	(8	3	0)	(4	1	2)	2.156	2.274	0.95	59.7	86.1
[3	-8	16]	(8	3	0)	(0	4	2)	2.156	2.274	0.95	79.4	61.2
[6	-16	35]	(8	3	0)	(-1	4	2)	2.156	2.257	0.96	86.1	59.0
[6	-16	29]	(8	3	0)	(1	4	2)	2.156	2.257	0.96	72.8	63.5
[6	-16	33]	(8	3	0)	(3	-3	-2)	2.156	2.248	0.96	78.2	60.4
[6	-16	-15]	(8	3	0)	(-3	-3	2)	2.156	2.248	0.96	61.6	75.5
[3	-8	3]	(8	3	0)	(7	3	1)	2.156	2.197	0.98	24.7	84.1
[6	-16	-15]	(8	3	0)	(5	0	2)	2.156	2.149	1.00	57.2	75.5
[3	-8	-18]	(8	3	0)	(4	-3	2)	2.156	2.140	1.01	72.4	58.2
[3	-8	6]	(8	3	0)	(4	3	2)	2.156	2.140	1.01	55.9	78.3
[3	-8	22]	(8	3	0)	(6	5	1)	2.156	2.136	1.01	30.5	52.9
[6	-16	-23]	(8	3	0)	(5	-1	2)	2.156	2.134	1.01	60.4	68.4
[6	-16	-7]	(8	3	0)	(5	1	2)	2.156	2.134	1.01	54.5	83.1
[6	-16	-41]	(8	3	0)	(3	-4	2)	2.156	2.133	1.01	81.4	54.8
[3	-8	-24]	(8	3	0)	(8	0	1)	2.156	2.118	1.02	31.3	50.5
[6	-16	43]	(8	3	0)	(-1	5	2)	2.156	2.111	1.02	83.9	53.5
[6	-16	37]	(8	3	0)	(1	5	2)	2.156	2.111	1.02	71.4	57.5
[3	-8	-16]	(8	3	0)	(8	1	1)	2.156	2.104	1.03	27.0	61.2
[3	-8	11]	(8	3	0)	(7	4	1)	2.156	2.090	1.03	25.0	69.3
[6	-16	-31]	(8	3	0)	(5	-2	2)	2.156	2.090	1.03	63.8	61.9
[6	-16	1]	(8	3	0)	(5	2	2)	2.156	2.090	1.03	52.3	89.0
[3	-8	23]	(8	3	0)	(-2	5	2)	2.156	2.071	1.04	90.0	51.7
[3	-8	17]	(8	3	0)	(2	5	2)	2.156	2.071	1.04	65.3	59.7
[3	-8	-8]	(8	3	0)	(8	2	1)	2.156	2.061	1.05	23.9	74.6
[6	-16	-39]	(8	3	0)	(5	-3	2)	2.156	2.022	1.07	67.2	56.2
[6	-16	9]	(8	3	0)	(5	3	2)	2.156	2.022	1.07	50.8	81.2
[6	-16	-49]	(8	3	0)	(3	-5	2)	2.156	2.009	1.07	84.2	49.9
[6	-16	-31]	(8	3	0)	(3	5	-2)	2.156	2.009	1.07	59.6	61.9
[3	-8	0]	(8	3	0)	(8	3	1)	2.156	1.996	1.08	22.2	90.0
[3	-8	-13]	(8	3	0)	(6	-1	2)	2.156	1.993	1.08	55.8	65.9
[3	-8	-5]	(8	3	0)	(6	1	2)	2.156	1.993	1.08	50.0	80.2

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Anthophyllite (830) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U V W]	(h k 0)	(h k l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3 -8 19]	(8 3 0)	(7 5 1)	2.156	1.972	1.09	26.5	56.8
[6 -16 51]	(8 3 0)	(-1 6 2)	2.156	1.966	1.10	82.0	48.8
[6 -16 45]	(8 3 0)	(1 6 2)	2.156	1.966	1.10	70.3	52.3
[6 -16 47]	(8 3 0)	(5 -4 -2)	2.156	1.937	1.11	70.6	51.1
[6 -16 -17]	(8 3 0)	(-5 -4 2)	2.156	1.937	1.11	49.9	73.7
[3 -8 -26]	(8 3 0)	(4 -5 2)	2.156	1.931	1.12	78.8	48.2
[3 -8 14]	(8 3 0)	(4 5 2)	2.156	1.931	1.12	54.3	64.3
[3 -8 -27]	(8 3 0)	(9 0 1)	2.156	1.916	1.13	29.7	47.1
[3 -8 8]	(8 3 0)	(8 4 1)	2.156	1.915	1.13	22.1	74.6
[3 -8 -19]	(8 3 0)	(9 1 1)	2.156	1.905	1.13	25.5	56.8
[3 -8 -21]	(8 3 0)	(6 -3 2)	2.156	1.901	1.13	62.6	54.2
[3 -8 3]	(8 3 0)	(6 3 2)	2.156	1.901	1.13	46.4	84.1
[6 -16 -57]	(8 3 0)	(3 -6 2)	2.156	1.883	1.15	86.8	45.6
[6 -16 39]	(8 3 0)	(3 6 2)	2.156	1.883	1.15	59.2	56.2
[3 -8 -11]	(8 3 0)	(9 2 1)	2.156	1.873	1.15	22.3	69.3
[6 -16 -21]	(8 3 0)	(7 0 2)	2.156	1.868	1.15	48.8	70.2
[6 -16 -29]	(8 3 0)	(7 -1 2)	2.156	1.858	1.16	51.8	63.5
[6 -16 -13]	(8 3 0)	(7 1 2)	2.156	1.858	1.16	46.1	77.4
[3 -8 27]	(8 3 0)	(7 6 1)	2.156	1.852	1.16	28.6	47.1
[6 -16 -55]	(8 3 0)	(5 -5 2)	2.156	1.843	1.17	73.8	46.6
[6 -16 25]	(8 3 0)	(5 5 2)	2.156	1.843	1.17	49.4	66.7
[6 -16 -37]	(8 3 0)	(7 -2 2)	2.156	1.828	1.18	55.2	57.5
[6 -16 -5]	(8 3 0)	(7 2 2)	2.156	1.828	1.18	44.0	85.1
[6 -16 53]	(8 3 0)	(1 7 2)	2.156	1.828	1.18	69.5	47.7
[3 -8 -3]	(8 3 0)	(9 3 1)	2.156	1.824	1.18	20.3	84.1
[3 -8 16]	(8 3 0)	(8 5 1)	2.156	1.823	1.18	23.2	61.2
[3 -8 25]	(8 3 0)	(2 7 2)	2.156	1.802	1.20	64.1	49.3
[6 -16 -45]	(8 3 0)	(7 -3 2)	2.156	1.782	1.21	58.6	52.3
[6 -16 3]	(8 3 0)	(7 3 2)	2.156	1.782	1.21	42.5	87.0
[3 -8 5]	(8 3 0)	(9 4 1)	2.156	1.761	1.22	19.8	80.2
[6 -16 47]	(8 3 0)	(3 7 2)	2.156	1.760	1.22	59.0	51.1
[3 -8 -1]	(8 3 0)	(1 0 3)	2.156	1.752	1.23	84.9	88.0
[9 -24 8]	(8 3 0)	(0 1 3)	2.156	1.752	1.23	88.0	84.8
[3 -8 -29]	(8 3 0)	(6 -5 2)	2.156	1.750	1.23	69.4	45.1
[3 -8 11]	(8 3 0)	(6 5 2)	2.156	1.750	1.23	45.1	69.3
[9 -24 -11]	(8 3 0)	(1 -1 3)	2.156	1.744	1.24	87.0	82.8
[9 -24 5]	(8 3 0)	(1 1 3)	2.156	1.744	1.24	82.9	86.7
[6 -16 33]	(8 3 0)	(5 6 2)	2.156	1.744	1.24	49.4	60.4
[3 -8 -16]	(8 3 0)	(8 -1 2)	2.156	1.731	1.25	48.5	61.2
[3 -8 -8]	(8 3 0)	(8 1 2)	2.156	1.731	1.25	42.9	74.6
[3 -8 -2]	(8 3 0)	(2 0 3)	2.156	1.729	1.25	80.0	86.1
[3 -8 24]	(8 3 0)	(8 6 1)	2.156	1.727	1.25	25.1	50.5
[6 -16 -53]	(8 3 0)	(7 -4 2)	2.156	1.724	1.25	62.0	47.7
[6 -16 11]	(8 3 0)	(7 4 2)	2.156	1.724	1.25	41.6	79.3
[9 -24 -14]	(8 3 0)	(2 -1 3)	2.156	1.721	1.25	82.0	80.9
[9 -24 2]	(8 3 0)	(2 1 3)	2.156	1.721	1.25	78.0	88.7
[9 -24 -19]	(8 3 0)	(1 -2 3)	2.156	1.719	1.25	89.0	77.7
[9 -24 13]	(8 3 0)	(1 2 3)	2.156	1.719	1.25	81.0	81.5

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Anthophyllite (830) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-8	-22]	(8	3	0)	(4	7	-2)	2.156	1.707	1.26	54.2	52.9
[9	-24	22]	(8	3	0)	(-2	2	3)	2.156	1.698	1.27	84.1	75.8
[9	-24	10]	(8	3	0)	(2	2	3)	2.156	1.698	1.27	76.1	83.5
[3	-8	13]	(8	3	0)	(9	5	1)	2.156	1.689	1.28	20.5	65.9
[9	-24	-1]	(8	3	0)	(3	1	3)	2.156	1.685	1.28	73.2	89.3
[3	-8	9]	(8	3	0)	(-1	3	3)	2.156	1.681	1.28	89.0	72.8
[3	-8	7]	(8	3	0)	(1	3	3)	2.156	1.681	1.28	79.2	76.5
[3	-8	24]	(8	3	0)	(8	-3	-2)	2.156	1.670	1.29	55.1	50.5
[3	-8	0]	(8	3	0)	(8	3	2)	2.156	1.670	1.29	39.2	90.0
[3	-8	-10]	(8	3	0)	(2	-3	3)	2.156	1.661	1.30	86.2	71.0
[3	-8	6]	(8	3	0)	(2	3	3)	2.156	1.661	1.30	74.5	78.3
[6	-16	19]	(8	3	0)	(7	5	2)	2.156	1.656	1.30	41.3	71.9
[6	-16	-41]	(8	3	0)	(5	7	-2)	2.156	1.645	1.31	49.7	54.8
[6	-16	-55]	(8	3	0)	(-3	-8	2)	2.156	1.645	1.31	59.0	46.6
[3	-8	-4]	(8	3	0)	(4	0	3)	2.156	1.645	1.31	70.6	82.2
[9	-24	-20]	(8	3	0)	(4	-1	3)	2.156	1.638	1.32	72.7	77.1
[9	-24	-4]	(8	3	0)	(4	1	3)	2.156	1.638	1.32	68.7	87.4
[9	-24	35]	(8	3	0)	(-1	4	3)	2.156	1.631	1.32	87.2	68.1
[9	-24	29]	(8	3	0)	(1	4	3)	2.156	1.631	1.32	77.6	71.6
[9	-24	4]	(8	3	0)	(4	2	3)	2.156	1.618	1.33	67.0	87.4
[6	-16	-35]	(8	3	0)	(9	-1	2)	2.156	1.615	1.33	45.6	59.0
[6	-16	-19]	(8	3	0)	(9	1	2)	2.156	1.615	1.33	40.1	71.9
[9	-24	-38]	(8	3	0)	(2	-4	3)	2.156	1.613	1.34	88.1	66.5
[9	-24	26]	(8	3	0)	(2	4	3)	2.156	1.613	1.34	73.0	73.4
[3	-8	21]	(8	3	0)	(9	6	1)	2.156	1.612	1.34	22.1	54.2
[6	-16	43]	(8	3	0)	(9	-2	-2)	2.156	1.596	1.35	48.7	53.5
[6	-16	-11]	(8	3	0)	(9	2	2)	2.156	1.596	1.35	38.0	79.3
[3	-8	-5]	(8	3	0)	(5	0	3)	2.156	1.589	1.36	66.4	80.2
[3	-8	-12]	(8	3	0)	(4	-3	3)	2.156	1.586	1.36	77.1	67.6
[3	-8	4]	(8	3	0)	(4	3	3)	2.156	1.586	1.36	65.4	82.2
[9	-24	-23]	(8	3	0)	(5	-1	3)	2.156	1.583	1.36	68.5	75.2
[9	-24	-7]	(8	3	0)	(5	1	3)	2.156	1.583	1.36	64.5	85.4
[6	-16	27]	(8	3	0)	(7	6	2)	2.156	1.583	1.36	41.4	65.1
[9	-24	-41]	(8	3	0)	(3	-4	3)	2.156	1.583	1.36	83.6	64.8
[9	-24	40]	(8	3	0)	(0	5	3)	2.156	1.579	1.37	80.8	65.4
[3	-8	19]	(8	3	0)	(6	7	2)	2.156	1.578	1.37	45.6	56.8
[9	-24	43]	(8	3	0)	(-1	5	3)	2.156	1.574	1.37	85.4	63.8
[9	-24	37]	(8	3	0)	(1	5	3)	2.156	1.574	1.37	76.2	67.0
[6	-16	-51]	(8	3	0)	(9	-3	2)	2.156	1.565	1.38	52.0	48.8
[6	-16	-3]	(8	3	0)	(9	3	2)	2.156	1.565	1.38	36.4	87.0
[9	-24	-31]	(8	3	0)	(5	-2	3)	2.156	1.565	1.38	70.7	70.4
[9	-24	1]	(8	3	0)	(5	2	3)	2.156	1.565	1.38	62.8	89.3
[3	-8	8]	(8	3	0)	(8	5	2)	2.156	1.565	1.38	37.9	74.6
[9	-24	46]	(8	3	0)	(-2	5	3)	2.156	1.557	1.38	90.0	62.2
[9	-24	34]	(8	3	0)	(2	5	3)	2.156	1.557	1.38	71.7	68.7
[6	-16	49]	(8	3	0)	(5	8	2)	2.156	1.550	1.39	50.1	49.9
[9	-24	-44]	(8	3	0)	(4	-4	3)	2.156	1.544	1.40	79.2	63.2
[9	-24	20]	(8	3	0)	(4	4	3)	2.156	1.544	1.40	64.2	77.1

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Anthophyllite (830) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[3	-8	-13]	(8	3	0)	(5	-3	3)	2.156	1.536	1.40	72.9	65.9
[3	-8	3]	(8	3	0)	(5	3	3)	2.156	1.536	1.40	61.3	84.1
[3	-8	29]	(8	3	0)	(9	7	1)	2.156	1.533	1.41	24.2	45.1
[9	-24	-49]	(8	3	0)	(3	-5	3)	2.156	1.530	1.41	85.6	60.7
[9	-24	31]	(8	3	0)	(3	5	3)	2.156	1.530	1.41	67.3	70.4
[6	-16	5]	(8	3	0)	(9	4	2)	2.156	1.525	1.41	35.4	85.1
[9	-24	-26]	(8	3	0)	(6	-1	3)	2.156	1.523	1.42	64.5	73.4
[9	-24	-10]	(8	3	0)	(6	1	3)	2.156	1.523	1.42	60.6	83.5
[3	-8	17]	(8	3	0)	(-1	6	3)	2.156	1.511	1.43	83.9	59.7
[3	-8	15]	(8	3	0)	(1	6	3)	2.156	1.511	1.43	75.0	62.7
[6	-16	35]	(8	3	0)	(7	7	2)	2.156	1.508	1.43	41.8	59.0
[9	-24	-34]	(8	3	0)	(6	-2	3)	2.156	1.507	1.43	66.7	68.7
[9	-24	-2]	(8	3	0)	(6	2	3)	2.156	1.507	1.43	58.9	88.7
[9	-24	17]	(8	3	0)	(5	4	3)	2.156	1.498	1.44	60.1	79.0
[3	-8	18]	(8	3	0)	(-2	6	3)	2.156	1.496	1.44	88.3	58.2
[3	-8	14]	(8	3	0)	(2	6	3)	2.156	1.496	1.44	70.6	64.3
[9	-24	-52]	(8	3	0)	(4	-5	3)	2.156	1.495	1.44	81.3	59.2
[9	-24	28]	(8	3	0)	(4	5	3)	2.156	1.495	1.44	63.1	72.2
[6	-16	13]	(8	3	0)	(9	5	2)	2.156	1.477	1.46	35.0	77.4
[9	-24	-29]	(8	3	0)	(7	-1	3)	2.156	1.460	1.48	60.9	71.6
[9	-24	-13]	(8	3	0)	(7	1	3)	2.156	1.460	1.48	57.0	81.5
[6	-16	-57]	(8	3	0)	(5	9	-2)	2.156	1.460	1.48	50.7	45.6
[9	-24	55]	(8	3	0)	(-5	5	3)	2.156	1.453	1.48	77.3	57.8
[9	-24	25]	(8	3	0)	(5	5	3)	2.156	1.453	1.48	59.2	74.0
[9	-24	56]	(8	3	0)	(0	7	3)	2.156	1.450	1.49	78.2	57.3
[9	-24	-50]	(8	3	0)	(6	-4	3)	2.156	1.446	1.49	71.3	60.2
[9	-24	14]	(8	3	0)	(6	4	3)	2.156	1.446	1.49	56.3	80.9
[9	-24	-37]	(8	3	0)	(7	-2	3)	2.156	1.446	1.49	63.1	67.0
[9	-24	-5]	(8	3	0)	(7	2	3)	2.156	1.446	1.49	55.4	86.7
[9	-24	59]	(8	3	0)	(-1	7	3)	2.156	1.445	1.49	82.4	55.9
[9	-24	53]	(8	3	0)	(1	7	3)	2.156	1.445	1.49	73.9	58.7
[3	-8	-20]	(8	3	0)	(4	-6	3)	2.156	1.440	1.50	83.3	55.5
[3	-8	12]	(8	3	0)	(4	6	3)	2.156	1.440	1.50	62.3	67.6
[3	-8	-16]	(8	3	0)	(8	7	-2)	2.156	1.438	1.50	38.4	61.2
[6	-16	-43]	(8	3	0)	(7	8	-2)	2.156	1.434	1.50	42.5	53.5
[9	-24	62]	(8	3	0)	(-2	7	3)	2.156	1.432	1.51	86.7	54.6
[9	-24	50]	(8	3	0)	(2	7	3)	2.156	1.432	1.51	69.7	60.2
[6	-16	21]	(8	3	0)	(9	6	2)	2.156	1.425	1.51	35.0	70.2
[3	-8	-15]	(8	3	0)	(7	-3	3)	2.156	1.423	1.52	65.4	62.7
[3	-8	1]	(8	3	0)	(7	3	3)	2.156	1.423	1.52	54.0	88.0
[3	-8	27]	(8	3	0)	(6	9	2)	2.156	1.412	1.53	46.9	47.1
[9	-24	-65]	(8	3	0)	(3	-7	3)	2.156	1.411	1.53	89.2	53.3
[9	-24	47]	(8	3	0)	(3	7	3)	2.156	1.411	1.53	65.6	61.7
[9	-24	58]	(8	3	0)	(6	-5	-3)	2.156	1.406	1.53	73.5	56.4
[9	-24	-22]	(8	3	0)	(-6	-5	3)	2.156	1.406	1.53	55.5	75.8
[3	-8	-21]	(8	3	0)	(5	-6	3)	2.156	1.403	1.54	79.4	54.2
[3	-8	11]	(8	3	0)	(5	6	3)	2.156	1.403	1.54	58.4	69.3
[3	-8	-8]	(8	3	0)	(8	0	3)	2.156	1.401	1.54	55.6	74.6

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Anthophyllite (830) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U	V	W]	(h	k	0)	(h	k	l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[9	-24	-32]	(8	3	0)	(8	-1	3)	2.156	1.396	1.54	57.7	69.9
[9	-24	-16]	(8	3	0)	(8	1	3)	2.156	1.396	1.54	53.8	79.6
[9	-24	-53]	(8	3	0)	(7	-4	3)	2.156	1.392	1.55	67.7	58.7
[9	-24	11]	(8	3	0)	(7	4	3)	2.156	1.392	1.55	52.9	82.8
[9	-24	-40]	(8	3	0)	(8	-2	3)	2.156	1.384	1.56	59.9	65.4
[9	-24	-8]	(8	3	0)	(8	2	3)	2.156	1.384	1.56	52.1	84.8
[9	-24	-68]	(8	3	0)	(4	-7	3)	2.156	1.383	1.56	85.2	52.1
[9	-24	-44]	(8	3	0)	(4	7	-3)	2.156	1.383	1.56	61.7	63.2
[9	-24	-67]	(8	3	0)	(-1	8	-3)	2.156	1.379	1.56	81.2	52.5
[9	-24	61]	(8	3	0)	(1	8	3)	2.156	1.379	1.56	73.0	55.0
[6	-16	29]	(8	3	0)	(9	7	2)	2.156	1.370	1.57	35.4	63.5
[9	-24	70]	(8	3	0)	(-2	8	3)	2.156	1.368	1.58	85.2	51.3
[9	-24	58]	(8	3	0)	(2	8	3)	2.156	1.368	1.58	69.0	56.4
[3	-8	-16]	(8	3	0)	(8	-3	3)	2.156	1.363	1.58	62.1	61.2
[3	-8	0]	(8	3	0)	(8	3	3)	2.156	1.363	1.58	50.8	90.0
[6	-16	51]	(8	3	0)	(7	9	2)	2.156	1.362	1.58	43.3	48.8
[9	-24	-71]	(8	3	0)	(5	-7	3)	2.156	1.350	1.60	81.4	50.9
[9	-24	41]	(8	3	0)	(5	7	3)	2.156	1.350	1.60	57.9	64.8
[9	-24	73]	(8	3	0)	(-3	8	3)	2.156	1.350	1.60	89.2	50.1
[9	-24	55]	(8	3	0)	(3	8	3)	2.156	1.350	1.60	65.0	57.8
[9	-24	-56]	(8	3	0)	(8	-4	3)	2.156	1.337	1.61	64.5	57.3
[9	-24	8]	(8	3	0)	(8	4	3)	2.156	1.337	1.61	49.7	84.8
[9	-24	-35]	(8	3	0)	(9	-1	3)	2.156	1.333	1.62	54.7	68.1
[9	-24	-19]	(8	3	0)	(9	1	3)	2.156	1.333	1.62	50.8	77.7
[9	-24	-76]	(8	3	0)	(4	-8	3)	2.156	1.325	1.63	87.0	48.9
[9	-24	52]	(8	3	0)	(4	8	3)	2.156	1.325	1.63	61.2	59.2
[9	-24	-43]	(8	3	0)	(9	-2	3)	2.156	1.322	1.63	56.9	63.8
[9	-24	-11]	(8	3	0)	(9	2	3)	2.156	1.322	1.63	49.2	82.8
[12	-32	-3]	(8	3	0)	(1	0	4)	2.156	1.317	1.64	86.2	88.5
[3	-8	23]	(8	3	0)	(7	-6	-3)	2.156	1.315	1.64	72.3	51.7
[3	-8	-9]	(8	3	0)	(-7	-6	3)	2.156	1.315	1.64	51.4	72.8
[3	-8	-25]	(8	3	0)	(-1	9	-3)	2.156	1.315	1.64	80.1	49.3
[6	-16	37]	(8	3	0)	(9	8	2)	2.156	1.313	1.64	36.1	57.5
[12	-32	-11]	(8	3	0)	(1	-1	4)	2.156	1.313	1.64	87.7	84.6
[12	-32	5]	(8	3	0)	(1	1	4)	2.156	1.313	1.64	84.7	87.5
[9	-24	-74]	(8	3	0)	(6	-7	3)	2.156	1.312	1.64	77.8	49.7
[9	-24	38]	(8	3	0)	(6	7	3)	2.156	1.312	1.64	54.4	66.5
[3	-8	24]	(8	3	0)	(8	9	2)	2.156	1.309	1.65	40.0	50.5
[3	-8	-4]	(8	3	0)	(0	-2	4)	2.156	1.306	1.65	87.0	82.2
[3	-8	26]	(8	3	0)	(-2	9	3)	2.156	1.305	1.65	83.9	48.2
[3	-8	22]	(8	3	0)	(2	9	3)	2.156	1.305	1.65	68.4	52.9
[9	-24	-64]	(8	3	0)	(8	-5	3)	2.156	1.304	1.65	66.8	53.7
[9	-24	16]	(8	3	0)	(8	5	3)	2.156	1.304	1.65	48.9	79.6
[6	-16	-7]	(8	3	0)	(2	-1	4)	2.156	1.303	1.65	84.0	83.1
[6	-16	1]	(8	3	0)	(2	1	4)	2.156	1.303	1.65	80.9	89.0
[12	-32	-19]	(8	3	0)	(1	-2	4)	2.156	1.303	1.66	89.3	80.7
[12	-32	13]	(8	3	0)	(1	2	4)	2.156	1.303	1.66	83.2	83.6
[9	-24	-79]	(8	3	0)	(5	-8	3)	2.156	1.296	1.66	83.3	47.8

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Anthophyllite (830) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U V W]	(h k 0)	(h k l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[9 -24 49]	(8 3 0)	(5 8 3)	2.156	1.296	1.66	57.6	60.7
[12 -32 -9]	(8 3 0)	(3 0 4)	2.156	1.291	1.67	78.7	85.6
[12 -32 -17]	(8 3 0)	(3 -1 4)	2.156	1.287	1.67	80.3	81.7
[12 -32 -1]	(8 3 0)	(3 1 4)	2.156	1.287	1.67	77.3	89.5
[12 -32 27]	(8 3 0)	(-1 3 4)	2.156	1.286	1.68	89.3	76.9
[12 -32 21]	(8 3 0)	(1 3 4)	2.156	1.286	1.68	81.8	79.8
[9 -24 -59]	(8 3 0)	(9 -4 3)	2.156	1.281	1.68	61.5	55.9
[9 -24 5]	(8 3 0)	(9 4 3)	2.156	1.281	1.68	46.8	86.7
[12 -32 -25]	(8 3 0)	(3 -2 4)	2.156	1.278	1.69	81.9	77.9
[12 -32 7]	(8 3 0)	(3 2 4)	2.156	1.278	1.69	75.8	86.6
[6 -16 -15]	(8 3 0)	(2 -3 4)	2.156	1.277	1.69	87.1	75.5
[6 -16 9]	(8 3 0)	(2 3 4)	2.156	1.277	1.69	78.1	81.2
[9 -24 -77]	(8 3 0)	(7 -7 3)	2.156	1.271	1.70	74.4	48.6
[9 -24 35]	(8 3 0)	(7 7 3)	2.156	1.271	1.70	51.1	68.1
[3 -8 8]	(8 3 0)	(8 6 3)	2.156	1.268	1.70	48.3	74.6
[3 -8 -28]	(8 3 0)	(4 -9 3)	2.156	1.268	1.70	88.6	46.1
[3 -8 20]	(8 3 0)	(4 9 3)	2.156	1.268	1.70	60.9	55.5
[3 -8 -5]	(8 3 0)	(4 -1 4)	2.156	1.266	1.70	76.7	80.2
[3 -8 -1]	(8 3 0)	(4 1 4)	2.156	1.266	1.70	73.7	88.0
[12 -32 29]	(8 3 0)	(1 4 4)	2.156	1.263	1.71	80.5	76.0
[9 -24 -82]	(8 3 0)	(6 -8 3)	2.156	1.262	1.71	79.8	46.8
[9 -24 -46]	(8 3 0)	(6 8 -3)	2.156	1.262	1.71	54.2	62.2
[12 -32 33]	(8 3 0)	(-3 3 4)	2.156	1.262	1.71	83.4	74.2
[12 -32 15]	(8 3 0)	(3 3 4)	2.156	1.262	1.71	74.5	82.7
[6 -16 -45]	(8 3 0)	(9 9 -2)	2.156	1.257	1.72	37.0	52.3
[9 -24 -67]	(8 3 0)	(9 -5 3)	2.156	1.252	1.72	63.8	52.5
[9 -24 13]	(8 3 0)	(9 5 3)	2.156	1.252	1.72	46.0	81.5
[12 -32 -15]	(8 3 0)	(5 0 4)	2.156	1.243	1.73	71.7	82.7
[3 -8 -29]	(8 3 0)	(5 -9 3)	2.156	1.242	1.74	85.0	45.1
[3 -8 -19]	(8 3 0)	(5 9 -3)	2.156	1.242	1.74	57.4	56.8
[3 -8 9]	(8 3 0)	(-4 3 4)	2.156	1.242	1.74	79.9	72.8
[3 -8 3]	(8 3 0)	(4 3 4)	2.156	1.242	1.74	71.0	84.1
[12 -32 -23]	(8 3 0)	(5 -1 4)	2.156	1.240	1.74	73.3	78.8
[12 -32 -7]	(8 3 0)	(5 1 4)	2.156	1.240	1.74	70.3	86.6
[12 -32 -41]	(8 3 0)	(3 -4 4)	2.156	1.240	1.74	85.0	70.6
[12 -32 -43]	(8 3 0)	(-1 5 -4)	2.156	1.236	1.74	86.4	69.7
[12 -32 37]	(8 3 0)	(1 5 4)	2.156	1.236	1.74	79.2	72.4
[12 -32 -31]	(8 3 0)	(5 -2 4)	2.156	1.231	1.75	74.9	75.1
[12 -32 1]	(8 3 0)	(5 2 4)	2.156	1.231	1.75	68.9	89.5
[9 -24 -80]	(8 3 0)	(8 -7 3)	2.156	1.228	1.76	71.2	47.5
[9 -24 -32]	(8 3 0)	(8 7 -3)	2.156	1.228	1.76	48.0	69.9
[6 -16 -23]	(8 3 0)	(2 -5 4)	2.156	1.228	1.76	90.0	68.4
[6 -16 17]	(8 3 0)	(2 5 4)	2.156	1.228	1.76	75.7	73.7
[9 -24 -85]	(8 3 0)	(7 -8 3)	2.156	1.226	1.76	76.4	45.8
[9 -24 43]	(8 3 0)	(7 8 3)	2.156	1.226	1.76	50.9	63.8
[12 -32 -39]	(8 3 0)	(5 -3 4)	2.156	1.217	1.77	76.5	71.5
[12 -32 9]	(8 3 0)	(5 3 4)	2.156	1.217	1.77	67.6	85.6
[12 -32 -49]	(8 3 0)	(3 -5 4)	2.156	1.214	1.78	86.5	67.2

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Anthophyllite (830) 475 Zone Axes

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Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U V W]	(h k 0)	(h k l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[12 -32 31]	(8 3 0)	(3 5 4)	2.156	1.214	1.78	72.2	75.1
[6 -16 -5]	(8 3 0)	(6 1 4)	2.156	1.211	1.78	67.0	85.1
[12 -32 51]	(8 3 0)	(-1 6 4)	2.156	1.205	1.79	85.1	66.3
[12 -32 45]	(8 3 0)	(1 6 4)	2.156	1.205	1.79	78.1	68.9
[12 -32 -47]	(8 3 0)	(5 -4 4)	2.156	1.198	1.80	78.2	68.0
[12 -32 17]	(8 3 0)	(5 4 4)	2.156	1.198	1.80	66.5	81.7
[3 -8 -13]	(8 3 0)	(4 -5 4)	2.156	1.196	1.80	83.1	65.9
[3 -8 7]	(8 3 0)	(4 5 4)	2.156	1.196	1.80	68.8	76.5
[6 -16 -21]	(8 3 0)	(6 -3 4)	2.156	1.189	1.81	73.3	70.2
[6 -16 3]	(8 3 0)	(6 3 4)	2.156	1.189	1.81	64.4	87.0
[9 -24 40]	(8 3 0)	(8 8 3)	2.156	1.187	1.82	47.9	65.4
[9 -24 -83]	(8 3 0)	(9 -7 3)	2.156	1.185	1.82	68.3	46.4
[9 -24 29]	(8 3 0)	(9 7 3)	2.156	1.185	1.82	45.2	71.6
[12 -32 -57]	(8 3 0)	(3 -6 4)	2.156	1.185	1.82	88.0	63.9
[12 -32 39]	(8 3 0)	(3 6 4)	2.156	1.185	1.82	71.2	71.5
[12 -32 -21]	(8 3 0)	(7 0 4)	2.156	1.181	1.83	65.4	79.8
[3 -8 17]	(8 3 0)	(7 9 3)	2.156	1.179	1.83	50.9	59.7
[12 -32 -29]	(8 3 0)	(7 -1 4)	2.156	1.178	1.83	66.9	76.0
[12 -32 -13]	(8 3 0)	(7 1 4)	2.156	1.178	1.83	63.9	83.6
[12 -32 -55]	(8 3 0)	(5 -5 4)	2.156	1.174	1.84	79.8	64.7
[12 -32 25]	(8 3 0)	(5 5 4)	2.156	1.174	1.84	65.5	77.9
[12 -32 -37]	(8 3 0)	(7 -2 4)	2.156	1.171	1.84	68.5	72.4
[12 -32 -5]	(8 3 0)	(7 2 4)	2.156	1.171	1.84	62.6	87.5
[12 -32 -59]	(8 3 0)	(-1 7 -4)	2.156	1.171	1.84	83.9	63.1
[12 -32 -53]	(8 3 0)	(-1 -7 4)	2.156	1.171	1.84	77.0	65.5
[6 -16 31]	(8 3 0)	(-2 7 4)	2.156	1.164	1.85	87.3	61.9
[6 -16 -25]	(8 3 0)	(2 7 -4)	2.156	1.164	1.85	73.6	66.7
[12 -32 -45]	(8 3 0)	(7 -3 4)	2.156	1.158	1.86	70.2	68.9
[12 -32 3]	(8 3 0)	(7 3 4)	2.156	1.158	1.86	61.4	88.5
[12 -32 -65]	(8 3 0)	(3 -7 4)	2.156	1.152	1.87	89.3	60.8
[12 -32 47]	(8 3 0)	(3 7 4)	2.156	1.152	1.87	70.3	68.0
[6 -16 -29]	(8 3 0)	(6 -5 4)	2.156	1.149	1.88	76.6	63.5
[6 -16 11]	(8 3 0)	(6 5 4)	2.156	1.149	1.88	62.4	79.3
[9 -24 37]	(8 3 0)	(9 8 3)	2.156	1.148	1.88	45.1	67.0
[12 -32 -63]	(8 3 0)	(5 -6 4)	2.156	1.148	1.88	81.4	61.6
[12 -32 33]	(8 3 0)	(5 6 4)	2.156	1.148	1.88	64.6	74.2
[3 -8 16]	(8 3 0)	(8 9 3)	2.156	1.145	1.88	48.0	61.2
[3 -8 -8]	(8 3 0)	(8 -1 4)	2.156	1.144	1.88	64.0	74.6
[3 -8 -4]	(8 3 0)	(8 1 4)	2.156	1.144	1.88	61.0	82.2
[12 -32 -53]	(8 3 0)	(7 -4 4)	2.156	1.142	1.89	71.9	65.5
[12 -32 11]	(8 3 0)	(7 4 4)	2.156	1.142	1.89	60.3	84.6
[3 -8 -11]	(8 3 0)	(4 7 -4)	2.156	1.137	1.90	67.1	69.3
[12 -32 61]	(8 3 0)	(1 8 4)	2.156	1.135	1.90	76.1	62.3
[3 -8 -12]	(8 3 0)	(8 -3 4)	2.156	1.126	1.92	67.3	67.6
[3 -8 0]	(8 3 0)	(8 3 4)	2.156	1.126	1.92	58.5	90.0
[12 -32 -61]	(8 3 0)	(7 -5 4)	2.156	1.121	1.92	73.6	62.3
[12 -32 19]	(8 3 0)	(7 5 4)	2.156	1.121	1.92	59.4	80.7
[12 -32 -71]	(8 3 0)	(5 -7 4)	2.156	1.118	1.93	82.9	58.6

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Anthophyllite (830) 475 Zone Axes

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Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U V W]	(h k 0)	(h k l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[12 -32 41]	(8 3 0)	(5 7 4)	2.156	1.118	1.93	63.9	70.6
[12 -32 73]	(8 3 0)	(-3 8 4)	2.156	1.118	1.93	89.3	57.9
[12 -32 55]	(8 3 0)	(3 8 4)	2.156	1.118	1.93	69.5	64.7
[12 -32 -27]	(8 3 0)	(9 0 4)	2.156	1.111	1.94	59.7	76.9
[12 -32 -19]	(8 3 0)	(9 1 4)	2.156	1.109	1.95	58.3	80.7
[12 -32 -43]	(8 3 0)	(9 -2 4)	2.156	1.102	1.96	62.9	69.7
[12 -32 -11]	(8 3 0)	(9 2 4)	2.156	1.102	1.96	57.0	84.6
[12 -32 69]	(8 3 0)	(7 -6 -4)	2.156	1.098	1.96	75.3	59.3
[12 -32 -27]	(8 3 0)	(-7 -6 4)	2.156	1.098	1.96	58.6	76.9
[12 -32 75]	(8 3 0)	(-1 9 4)	2.156	1.098	1.96	81.7	57.2
[6 -16 -37]	(8 3 0)	(6 -7 4)	2.156	1.096	1.97	79.8	57.5
[6 -16 19]	(8 3 0)	(6 7 4)	2.156	1.096	1.97	60.9	71.9
[6 -16 39]	(8 3 0)	(-2 9 4)	2.156	1.092	1.97	84.9	56.2
[6 -16 33]	(8 3 0)	(2 9 4)	2.156	1.092	1.97	72.0	60.4
[12 -32 -51]	(8 3 0)	(9 -3 4)	2.156	1.092	1.97	64.6	66.3
[12 -32 -3]	(8 3 0)	(9 3 4)	2.156	1.092	1.97	55.8	88.5
[3 -8 -16]	(8 3 0)	(8 -5 4)	2.156	1.092	1.97	70.7	61.2
[3 -8 4]	(8 3 0)	(8 5 4)	2.156	1.092	1.97	56.6	82.2
[12 -32 -79]	(8 3 0)	(5 -8 4)	2.156	1.087	1.98	84.4	55.8
[12 -32 49]	(8 3 0)	(5 8 4)	2.156	1.087	1.98	63.3	67.2
[12 -32 81]	(8 3 0)	(-3 9 4)	2.156	1.083	1.99	88.1	55.2
[12 -32 63]	(8 3 0)	(3 9 4)	2.156	1.083	1.99	68.9	61.6
[12 -32 -59]	(8 3 0)	(9 -4 4)	2.156	1.078	2.00	66.3	63.1
[12 -32 5]	(8 3 0)	(9 4 4)	2.156	1.078	2.00	54.8	87.5
[12 -32 -77]	(8 3 0)	(7 -7 4)	2.156	1.072	2.01	76.9	56.5
[12 -32 35]	(8 3 0)	(7 7 4)	2.156	1.072	2.01	58.0	73.3
[3 -8 -21]	(8 3 0)	(4 -9 4)	2.156	1.070	2.02	88.8	54.2
[3 -8 15]	(8 3 0)	(4 9 4)	2.156	1.070	2.02	65.8	62.7
[12 -32 -67]	(8 3 0)	(9 -5 4)	2.156	1.061	2.03	68.0	60.1
[12 -32 13]	(8 3 0)	(9 5 4)	2.156	1.061	2.03	54.0	83.6
[15 -40 -3]	(8 3 0)	(1 0 5)	2.156	1.054	2.05	87.0	88.8
[12 -32 -87]	(8 3 0)	(5 -9 4)	2.156	1.054	2.05	85.7	53.2
[12 -32 57]	(8 3 0)	(5 9 4)	2.156	1.054	2.05	62.8	63.9
[15 -40 8]	(8 3 0)	(0 1 5)	2.156	1.054	2.05	88.8	86.9
[15 -40 -11]	(8 3 0)	(1 -1 5)	2.156	1.052	2.05	88.2	85.7
[3 -8 1]	(8 3 0)	(1 1 5)	2.156	1.052	2.05	85.7	88.0
[15 -40 -6]	(8 3 0)	(2 0 5)	2.156	1.049	2.06	83.9	87.6
[15 -40 -14]	(8 3 0)	(2 -1 5)	2.156	1.047	2.06	85.2	84.5
[15 -40 2]	(8 3 0)	(2 1 5)	2.156	1.047	2.06	82.7	89.2
[15 -40 -19]	(8 3 0)	(1 -2 5)	2.156	1.047	2.06	89.4	82.6
[15 -40 13]	(8 3 0)	(1 2 5)	2.156	1.047	2.06	84.5	84.9
[3 -8 -20]	(8 3 0)	(8 -7 4)	2.156	1.046	2.06	74.1	55.5
[3 -8 -8]	(8 3 0)	(8 7 -4)	2.156	1.046	2.06	55.3	74.6
[12 -32 85]	(8 3 0)	(-7 8 4)	2.156	1.044	2.06	78.5	53.8
[12 -32 -43]	(8 3 0)	(7 8 -4)	2.156	1.044	2.06	57.5	69.7
[15 -40 -22]	(8 3 0)	(2 -2 5)	2.156	1.042	2.07	86.4	81.4
[3 -8 2]	(8 3 0)	(2 2 5)	2.156	1.042	2.07	81.5	86.1
[12 -32 -75]	(8 3 0)	(9 -6 4)	2.156	1.041	2.07	69.8	57.2

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Anthophyllite (830) 475 Zone Axes

a **18.50Å** ***b*** **17.90Å** ***c*** **5.28Å** ***α*** **90°** ***β*** **90°** ***γ*** **90°**

Space Group Pnma *h=2n* for *(hk0)* ; *(k+l)=2n* for *(0kl)*

[U V W]	(h k 0)	(h k l)	*d* (hk0)	*d* (hkl)	*d* Ratio	θ°	ZA^C°
[12 -32 21]	(8 3 0)	(9 6 4)	2.156	1.041	2.07	53.3	79.8
[15 -40 -9]	(8 3 0)	(3 0 5)	2.156	1.041	2.07	80.9	86.5
[15 -40 24]	(8 3 0)	(0 3 5)	2.156	1.040	2.07	86.4	80.6
[15 -40 -17]	(8 3 0)	(3 -1 5)	2.156	1.039	2.08	82.2	83.3
[15 -40 -1]	(8 3 0)	(3 1 5)	2.156	1.039	2.08	79.7	89.6
[15 -40 27]	(8 3 0)	(-1 3 5)	2.156	1.038	2.08	89.4	79.5
[15 -40 21]	(8 3 0)	(1 3 5)	2.156	1.038	2.08	83.4	81.8
[6 -16 -45]	(8 3 0)	(6 -9 4)	2.156	1.036	2.08	82.8	52.3
[6 -16 27]	(8 3 0)	(6 9 4)	2.156	1.036	2.08	59.9	65.1
[3 -8 -5]	(8 3 0)	(3 -2 5)	2.156	1.034	2.09	83.4	80.2
[15 -40 7]	(8 3 0)	(3 2 5)	2.156	1.034	2.09	78.6	87.2
[3 -8 -6]	(8 3 0)	(2 -3 5)	2.156	1.033	2.09	87.6	78.3
[15 -40 18]	(8 3 0)	(2 3 5)	2.156	1.033	2.09	80.4	82.9
[15 -40 -12]	(8 3 0)	(4 0 5)	2.156	1.030	2.09	78.0	85.3
[3 -8 -4]	(8 3 0)	(4 -1 5)	2.156	1.028	2.10	79.3	82.2
[15 -40 -4]	(8 3 0)	(4 1 5)	2.156	1.028	2.10	76.8	88.4
[3 -8 7]	(8 3 0)	(-1 4 5)	2.156	1.026	2.10	88.2	76.5
[15 -40 29]	(8 3 0)	(1 4 5)	2.156	1.026	2.10	82.3	78.7
[15 -40 -33]	(8 3 0)	(3 -3 5)	2.156	1.025	2.10	84.7	77.2
[3 -8 3]	(8 3 0)	(3 3 5)	2.156	1.025	2.10	77.5	84.1
[15 -40 -28]	(8 3 0)	(4 -2 5)	2.156	1.023	2.11	80.5	79.1
[15 -40 4]	(8 3 0)	(4 2 5)	2.156	1.023	2.11	75.7	88.4
[15 -40 -38]	(8 3 0)	(2 -4 5)	2.156	1.021	2.11	88.8	75.4
[15 -40 26]	(8 3 0)	(2 4 5)	2.156	1.021	2.11	79.3	79.9
[12 -32 -83]	(8 3 0)	(9 -7 4)	2.156	1.019	2.12	71.4	54.5
[12 -32 29]	(8 3 0)	(9 7 4)	2.156	1.019	2.12	52.7	76.0
[12 -32 -93]	(8 3 0)	(7 -9 4)	2.156	1.015	2.12	80.0	51.4
[12 -32 51]	(8 3 0)	(7 9 4)	2.156	1.015	2.12	57.1	66.3
[15 -40 -36]	(8 3 0)	(4 -3 5)	2.156	1.015	2.13	81.8	76.1
[15 -40 12]	(8 3 0)	(4 3 5)	2.156	1.015	2.13	74.6	85.3
[15 -40 -23]	(8 3 0)	(5 -1 5)	2.156	1.014	2.13	76.4	81.0
[15 -40 -7]	(8 3 0)	(5 1 5)	2.156	1.014	2.13	74.0	87.2
[15 -40 -41]	(8 3 0)	(3 -4 5)	2.156	1.014	2.13	85.9	74.3
[15 -40 43]	(8 3 0)	(-1 5 5)	2.156	1.011	2.13	87.1	73.5
[15 -40 37]	(8 3 0)	(1 5 5)	2.156	1.011	2.13	81.2	75.7
[15 -40 -31]	(8 3 0)	(5 -2 5)	2.156	1.009	2.14	77.7	78.0
[15 -40 1]	(8 3 0)	(5 2 5)	2.156	1.009	2.14	72.8	89.6
[15 -40 46]	(8 3 0)	(-2 5 5)	2.156	1.007	2.14	90.0	72.4
[15 -40 34]	(8 3 0)	(2 5 5)	2.156	1.007	2.14	78.3	76.8
[15 -40 -44]	(8 3 0)	(4 -4 5)	2.156	1.003	2.15	83.0	73.2
[3 -8 4]	(8 3 0)	(4 4 5)	2.156	1.003	2.15	73.5	82.2
[15 -40 -39]	(8 3 0)	(5 -3 5)	2.156	1.001	2.15	79.0	75.0
[15 -40 9]	(8 3 0)	(5 3 5)	2.156	1.001	2.15	71.8	86.5

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