

DOMINANT HABIT OCTAHEDRAL
Cristobalite SiO_2 96
Kremersite . . . $\text{KNH}_4\text{FeCl}_6 \cdot \text{H}_2\text{O}$ 201

DOMINANT HABIT DODECAHEDRAL
Rhodizite $(\text{K}, \text{Cs})\text{Al}_2\text{B}_3\text{O}_8$ 294

DOMINANT HABIT TRAPEZOHEDRAL
Leucite $\text{KAl}(\text{SiO}_3)_2$ 218

ERRONEOUSLY CLASSED AS
ISOMETRIC

(or as independent species)
Cubanite and carrollite, mixtures;
Binnite, a variety of tetrahedrite;
Polyargyrite, probably impure argen-
tite; Stannite (Zinnkies), really tet-
ragonal.

CHORD AND TANGENT TABLES FOR USE WITH THE GOLDSCHMIDT METHOD

Natural Tangents X 5 cm. for plotting <u>rhe</u> angles.													
ϕ°	0'	10'	20'	30'	40'	50'	ϕ°	0'	10'	20'	30'	40'	50'
0	0.000	0.014	0.029	0.044	0.058	0.073	45	5.000	5.029	5.058	5.088	5.118	5.148
1	0.087	0.103	0.116	0.131	0.145	0.160	46	5.178	5.208	5.238	5.269	5.300	5.331
2	0.174	0.189	0.204	0.218	0.233	0.247	47	5.362	5.393	5.425	5.456	5.488	5.521
3	0.262	0.277	0.291	0.306	0.320	0.335	48	5.553	5.586	5.618	5.651	5.685	5.718
4	0.350	0.364	0.379	0.393	0.408	0.423	49	5.752	5.786	5.820	5.854	5.889	5.924
5	0.437	0.452	0.467	0.481	0.496	0.511	50	5.959	5.994	6.030	6.065	6.101	6.138
6	0.525	0.540	0.555	0.570	0.584	0.599	51	6.174	6.211	6.248	6.286	6.323	6.361
7	0.614	0.629	0.643	0.657	0.673	0.688	52	6.400	6.438	6.477	6.516	6.555	6.595
8	0.703	0.717	0.732	0.747	0.762	0.777	53	6.635	6.675	6.716	6.757	6.798	6.840
9	0.792	0.807	0.822	0.837	0.852	0.867	54	6.882	6.924	6.967	7.010	7.053	7.097
10	0.882	0.897	0.912	0.927	0.942	0.957	55	7.141	7.185	7.230	7.275	7.320	7.366
11	0.972	0.987	1.002	1.017	1.032	1.047	56	7.413	7.459	7.507	7.554	7.602	7.650
12	1.063	1.078	1.093	1.108	1.124	1.139	57	7.699	7.749	7.798	7.848	7.899	7.950
13	1.154	1.170	1.185	1.200	1.216	1.231	58	8.002	8.054	8.106	8.159	8.213	8.267
14	1.247	1.262	1.278	1.293	1.309	1.324	59	8.321	8.376	8.432	8.488	8.545	8.602
15	1.340	1.355	1.371	1.387	1.402	1.418	60	8.606	8.719	8.778	8.837	8.896	8.959
16	1.434	1.450	1.465	1.481	1.497	1.513	61	9.020	9.082	9.145	9.209	9.273	9.338
17	1.529	1.546	1.560	1.576	1.592	1.608	62	9.404	9.470	9.537	9.605	9.673	9.743
18	1.625	1.641	1.658	1.673	1.689	1.705	63	9.813	9.884	9.956	10.028	10.102	10.176
19	1.722	1.738	1.754	1.771	1.787	1.803	64	10.251	10.328	10.405	10.483	10.562	10.642
20	1.820	1.836	1.853	1.869	1.886	1.903	65	10.723	10.804	10.887	10.971	11.057	11.143
21	1.919	1.936	1.953	1.969	1.986	2.003	66	11.230	11.319	11.408	11.499	11.591	11.685
22	2.020	2.037	2.054	2.071	2.088	2.105	67	11.779	11.875	11.972	12.071	12.171	12.273
23	2.122	2.139	2.157	2.174	2.191	2.209	68	12.375	12.480	12.586	12.693	12.802	12.913
24	2.226	2.243	2.261	2.279	2.296	2.314	69	13.025	13.140	13.255	13.373	13.493	13.614
25	2.331	2.349	2.367	2.385	2.403	2.421	70	13.737	13.863	13.990	14.120	14.251	14.385
26	2.439	2.457	2.475	2.493	2.511	2.529	71	14.521	14.659	14.800	14.943	15.089	15.237
27	2.548	2.566	2.584	2.603	2.621	2.640	72	15.388	15.542	15.699	15.858	16.020	16.186
28	2.658	2.677	2.696	2.715	2.734	2.752	73	16.354	16.526	16.701	16.880	17.062	17.248
29	2.771	2.790	2.810	2.829	2.848	2.867	74	17.437	17.630	17.828	18.029	18.235	18.445
30	2.887	2.906	2.926	2.945	2.965	2.984	75	18.600	18.800	19.104	19.334	19.568	19.808
31	3.004	3.024	3.044	3.064	3.084	3.104	76	20.054	20.305	20.563	20.826	21.097	21.374
32	3.124	3.144	3.165	3.185	3.206	3.226	77	21.657	21.948	22.247	22.554	22.868	23.191
33	3.247	3.268	3.288	3.309	3.330	3.351	78	23.523	23.864	24.215	24.576	24.947	25.329
34	3.372	3.394	3.415	3.436	3.458	3.479	79	25.723	26.128	26.540	26.978	27.423	27.882
35	3.501	3.523	3.544	3.566	3.588	3.610	80	28.356	28.847	29.354	29.879	30.422	30.985
36	3.633	3.655	3.677	3.700	3.722	3.745	81	31.509	32.174	32.803	33.456	34.135	34.841
37	3.768	3.790	3.813	3.837	3.860	3.883	82	35.577	36.334	37.144	37.979	38.852	39.765
38	3.906	3.930	3.953	3.977	4.001	4.025	83	40.722	41.725	42.778	43.884	45.049	46.277
39	4.049	4.073	4.097	4.122	4.146	4.171	84	47.572	48.941	50.390	51.927	53.560	55.297
40	4.195	4.220	4.245	4.270	4.295	4.321	85	57.150	59.131	61.252	63.531	65.984	68.633
41	4.346	4.372	4.398	4.424	4.450	4.476	86	71.503	74.622	78.024	81.750	85.847	90.375
42	4.502	4.528	4.555	4.582	4.608	4.635	87	95.406	101.03	107.35	114.52	122.71	132.16
43	4.663	4.690	4.717	4.745	4.772	4.800	88	143.18	156.21	171.84	190.94	214.82	245.52
44	4.828	4.857	4.885	4.913	4.942	4.971	89	286.45	343.75	429.70	572.95	850.42	1718.9
ϕ°	0'	10'	20'	30'	40'	50'	ϕ°	0'	10'	20'	30'	40'	50'

Natural Chords ($2 \times \sin \frac{\phi}{2}$) for plotting ϕ angles.						
ϕ°	0	10	20	30	40	50
0	0.0000	0.0029	0.0058	0.0087	0.0116	0.0145
1	0.0175	0.0204	0.0233	0.0262	0.0291	0.0320
2	0.0349	0.0378	0.0407	0.0436	0.0465	0.0494
3	0.0524	0.0553	0.0582	0.0611	0.0640	0.0669
4	0.0698	0.0727	0.0756	0.0785	0.0814	0.0843
5	0.0872	0.0901	0.0931	0.0960	0.0989	0.1018
6	0.1047	0.1076	0.1105	0.1134	0.1163	0.1192
7	0.1221	0.1250	0.1279	0.1308	0.1337	0.1366
8	0.1395	0.1424	0.1453	0.1482	0.1511	0.1540
9	0.1569	0.1598	0.1627	0.1656	0.1685	0.1714
10	0.1743	0.1772	0.1801	0.1830	0.1859	0.1888
11	0.1917	0.1946	0.1975	0.2004	0.2033	0.2062
12	0.2091	0.2119	0.2148	0.2177	0.2206	0.2235
13	0.2264	0.2293	0.2322	0.2351	0.2380	0.2409
14	0.2437	0.2466	0.2495	0.2524	0.2553	0.2582
15	0.2611	0.2639	0.2668	0.2697	0.2726	0.2755
16	0.2783	0.2812	0.2841	0.2870	0.2899	0.2927
17	0.2956	0.2985	0.3014	0.3042	0.3071	0.3100
18	0.3129	0.3157	0.3186	0.3215	0.3244	0.3272
19	0.3301	0.3330	0.3358	0.3387	0.3416	0.3444
20	0.3473	0.3502	0.3530	0.3559	0.3587	0.3616
21	0.3645	0.3673	0.3702	0.3730	0.3759	0.3788
22	0.3816	0.3845	0.3873	0.3902	0.3930	0.3959
23	0.3987	0.4016	0.4044	0.4073	0.4101	0.4130
24	0.4158	0.4187	0.4215	0.4244	0.4272	0.4300
25	0.4329	0.4357	0.4386	0.4414	0.4443	0.4471
26	0.4499	0.4527	0.4556	0.4584	0.4613	0.4641
27	0.4669	0.4697	0.4725	0.4754	0.4782	0.4810
28	0.4838	0.4867	0.4895	0.4923	0.4951	0.4979
29	0.5008	0.5036	0.5064	0.5092	0.5120	0.5148
30	0.5176	0.5204	0.5233	0.5261	0.5289	0.5317
31	0.5345	0.5373	0.5401	0.5429	0.5457	0.5485
32	0.5513	0.5541	0.5569	0.5597	0.5625	0.5653
33	0.5680	0.5708	0.5736	0.5764	0.5792	0.5820
34	0.5847	0.5875	0.5903	0.5931	0.5959	0.5986
35	0.6014	0.6042	0.6070	0.6097	0.6125	0.6153
36	0.6180	0.6208	0.6236	0.6263	0.6291	0.6319
37	0.6346	0.6374	0.6401	0.6429	0.6456	0.6484
38	0.6511	0.6539	0.6566	0.6594	0.6621	0.6649
39	0.6676	0.6704	0.6731	0.6758	0.6786	0.6813
40	0.6840	0.6868	0.6895	0.6922	0.6950	0.6977
41	0.7004	0.7031	0.7059	0.7086	0.7113	0.7140
42	0.7167	0.7195	0.7222	0.7249	0.7276	0.7303
43	0.7330	0.7357	0.7384	0.7411	0.7438	0.7465
44	0.7493	0.7519	0.7546	0.7573	0.7600	0.7627
45	0.7654	0.7681	0.7707	0.7734	0.7761	0.7788
ϕ°	0	10	20	30	40	50

NOTES AND NEWS

Mr. Edwin T. Hodge of the University of British Columbia has been appointed to a full professorship of mineralogy and ore deposits at the University of Oregon. After September 1st he should be addressed at Eugene, Oregon.

Dr. William E. Ford has been promoted to a professorship of mineralogy in the Sheffield Scientific School, Yale University.

The American Association for the Advancement of Science has made a grant of \$100 to Professor John C. Shedd of Occidental College, Los Angeles, to aid in his studies of snow crystals from the standpoint of the physicist.

The report of the occurrence of rhodonite at the Strickland Quarry, Portland, Connecticut, made in the October, 1919, number of this magazine (page 124), proves to be erroneous. Professor Foye informs us that further examination has shown the absence of silica and the presence of phosphoric oxide; the mineral proves, in fact, to be *lithiophilite*. He wishes to add two other minerals to the list of those found at the quarry, namely calcite in "nail-head" crystals in tourmaline vugs; and *asbestiform* tourmaline, the latter determined by Professor William North Rice.

The initial number of a new abstract journal, "Revue de géologie et des sciences connexes"—"Review of geology and connected sciences"—"Rassegna di geologia e delle scienze affini," has just been received. It includes a department devoted to crystallography and mineralogy. In it all articles published since the beginning of the great war in other countries than Germany and Austria are to be abstracted, either in French, English or Italian. The subscription price is not announced in this number. Information concerning this publication can be obtained from: M. Jean Anten, Secrétaire, Laboratoire de géologie, Université de Liège, Belgium.