

these aids to construction is that which they assume if we think of them in normal position and rotated with the crystal to the new position. The two drawings are related by lines normal to LL and the construction follows exactly the rules given in the paper on crystal drawing, page 93.

The crystal of monazite here figured is interesting as marking a new locality for this mineral. The single crystal found occurred in a cavity of a quartz vein in Weymouth, Mass. The vein is lenticular, following the bedding of the Cambrian slate of the region. The quartz crystals are large and fine, clear, with the usual forms. The monazite crystal, about 3 mm. in diameter, is clear and of dark amber color. The writer is indebted to Mr. T. H. Clark for the loan of the specimen and for the knowledge of the locality.

LISTS OF THE MONOCLINIC MINERALS INCLUDED IN GOLDSCHMIDT'S WINKELTABELLEN. EDGAR T. WHERRY. *Washington, D. C.*—The minerals are arranged as in the preceding list in increasing order of axis *a*. The approximate value of the monoclinic angle  $\mu$  is also given; in most cases this is identical with  $\beta$  as given by Dana, but it is the complement of  $\beta$  as given by some other authors.

MONOCLINIC MINERALS

	<i>a</i>	<i>c</i>	$\mu$	Page		<i>a</i>	<i>c</i>	$\mu$	Page
Euclase (Euklas)	0.32	0.33	80°	135	Quenstedtite	0.67	0.66	78	291
Autunite (Kalkuranite)	0.35	0.35	90	194	Gypsum	0.69	0.41	81	167
Heulandite	0.40	0.86	89	177	Harmotomite	0.70	1.23	55	170
Claudetite	0.40	0.34	86	97	Phillipsite	0.70	1.23	56	264
Brewsterite	0.40	0.84	86	79	Cuspidinite	0.72	1.94	90	105
Ganophyllite	0.41	1.83	87	155	Realgar	0.72	0.49	66	292
Kroehnkite	0.45	0.44	73	203	Chalcomenite	0.72	0.98	89	92
Wapplerite	0.46	0.27	85	362	Picromerite	0.74	0.50	75	266
Copiapite	0.48	0.98	72	102	Vivianite	0.75	0.70	76	359
Mordenite	0.50	1.07	89	244	Erythrite (Kobaltblüthe)	0.75	0.70	75	199
Epistilbite	0.51	0.58	56	131	Titanite	0.75	0.85	60	344
Amphibole	0.55	0.29	75	37	Cyanochroite	0.76	0.50	74	107
Kaolinite	0.57	1.60	83	196	Durangite	0.77	0.82	65	121
Chlorite group	0.58	2.26	90	400	Colemanite	0.78	0.54	70	100
Freieslebenite	0.59	0.93	88	151	Malachite	0.78	0.40	89	228
Allactite	0.61	0.33	84	33	Symplesite	0.78	0.68	73	336
Pharmacolite	0.61	0.36	83	263	Wolframite	0.83	0.87	90	366
Brushite	0.62	0.34	85	81	Azurite (Kupferlasur)	0.85	0.88	88	207
Homilite	0.62	1.28	89	179	Whewellite	0.87	1.37	73	363
Gadolinite	0.63	1.32	89	153	Leadhillite	0.87	1.11	90	217
Hydroherderite	0.63	0.64	90	174	Kieserite	0.91	1.77	89	198
Datolite	0.63	0.63	90	110	Atelestite	0.93	1.51	71	57
Lautarite	0.63	0.64	74	215	Wagnerite, Kjerulfinite	0.96	0.75	72	361
Sapphirinite	0.65	0.93	80	310	Crocoite (Rothbleierz)	0.96	0.92	77	297
Botryogenite	0.65	0.60	62	75					
Fiedlerite	0.66	0.89	77	146					
Hyalophanite	0.66	0.55	64	143					
Orthoclase	0.66	0.56	64	143					

Cryolite (Kryo- lith).....	0.97	1.39	90	203	Clinohumite (Klinohumit) ..	1.44	1.08	79	183
Monazite.....	0.97	0.93	76	243	Natronite (Soda) ..	1.48	1.40	59	322
Lazulite.....	0.98	1.65	89	216	Gaylussite.....	1.49	1.44	78	155
Scolecite.....	0.98	0.84	89	320	Tenorite.....	1.49	1.36	80	340
Baddeleyite.....	0.99	0.51	81	59	Vauquelinite.....	1.49	1.40	70	358
Thomsenolite.....	0.99	1.03	87	342	Lanarkite.....	1.49	1.38	61	211
Wollastonite.....	1.05	0.97	85	285	Darapskite.....	1.53	0.75	77	109
Woehlerite.....	1.05	0.71	71	365	Allanite (Orthit) ..	1.55	1.78	65	255
Diopside.....	1.09	0.59	74	283	Rinkite.....	1.57	0.29	89	294
Loavenite (La- venit).....	1.10	0.72	70	215	Epidote.....	1.58	1.81	65	129
Adelite.....	1.10	1.56	73	31	Piedmontite (Manganepidot) ..	1.61	1.83	65	229
Borax.....	1.10	1.13	73	75	Johnstrupite-Mos- andrite.....	1.62	1.36	87	191
Acmite (Akmit) ..	1.10	0.60	73	282	Sylvanite.....	1.63	1.13	90	334
Pectolite (Pekto- lith).....	1.11	0.99	85	285	Chondrodite.....	1.66	1.08	71	182
Mirabilite (Glauc- bersalz).....	1.12	1.24	72	159	Liroconite.....	1.68	1.32	89	222
Plagionite.....	1.13	0.85	73	268	Eudidymite.....	1.71	1.11	86	134
Semseyite.....	1.14	1.11	71	315	Gibbsite (Hydrar- gillit).....	1.71	1.92	85	185
Laumontite.....	1.15	1.18	69	213	Fillowite.....	1.73	1.42	90	147
Petalite.....	1.15	1.49	68	262	Pearcite.....	1.73	1.62	90	259
Pisanite.....	1.16	1.51	75	267	Dickinsonite.....	1.73	1.20	62	117
Pachnolite.....	1.16	1.53	90	257	Linarite.....	1.74	0.83	75	221
Rosenbuschite.....	1.17	0.97	78	297	Herregrundite.....	1.82	1.40	89	175
Bieberite.....	1.18	1.53	75	69	Triploidite.....	1.86	1.49	72	350
Melanterite (Ei- senvitriol).....	1.18	1.54	76	125	Clinoclasite (Abi- chit).....	1.91	3.85	81	30
Kainite.....	1.22	0.59	85	193	Xanthoconite (Xanthokon) ..	1.92	1.02	89	370
Glauberite.....	1.22	1.03	68	159	Sarkinite.....	2.00	1.52	62	310
Partschinite.....	1.22	0.79	52	258	Johannite.....	2.04	1.46	85	190
Barytoalcite.....	1.25	0.85	61	62	Hureaulite.....	2.09	1.05	66	184
Dolerophanite.....	1.30	1.21	72	119	Hintzeite-Heintz- ite.....	2.19	1.73	80	178
Neptunite.....	1.32	0.81	64	248	Ludlamite.....	2.25	1.98	79	223
Prosopite.....	1.32	0.60	86	273	Beraunite (Eleo- norit).....	2.76	4.02	49	126
Raspite.....	1.35	1.11	72	292	Tronaite.....	2.85	2.97	77	351
Bloedite (Blödit) ..	1.35	0.67	79	73	Stercorite.....	2.88	1.86	81	328
Syngenite.....	1.37	0.87	76	337	Miargyrite.....	2.99	2.91	81	239
Spodumenite.....	1.37	1.27	50	326					
Dietzeite.....	1.38	0.95	73	117					
Fichtelite.....	1.42	1.73	53	146					

## NOTES AND NEWS

Dr. Norman L. Bowen has resigned from the professorship of mineralogy at Queen's University, and has returned to the Geophysical Laboratory of the Carnegie Institution of Washington.

We regret to record the deaths of Joseph P. Iddings, the eminent petrologist, and E. S. Fedorov, the Russian crystallographer.

Dr. E. B. Matthews, Professor of Mineralogy and Petrography at Johns Hopkins University has been elected chairman of the Division of Geology and Geography of the National Research Council for the year 1920-21.

The subscription price of the *Revue de Géologie et des Sciences Connexes*, to which reference was recently made in this column, has been fixed at 50 francs, which may be sent by International Money Order to Monsieur G. Tibaux, Treasurer Soc. Géol. de Belg., 35 rue des Armuriers, Liège, Belgium.