

A
SYSTEM
OF
MINERALOGY.

DESCRIPTIVE MINERALOGY,

COMPRISING THE
MOST RECENT DISCOVERIES.

BY

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"Hæc studia nobiscum peregrinantur....rusticantur."

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BERZELIANITE (50, p. 46). According to A. E. Nordenskiöld (Efv. Ak. Stockholm, 1866, 361, J. pr. Ch., cil. 456) berzelianite occurs at Skrikerum as a black to blackish-blue powder, disseminated through a coarse crystalline calcite, showing no traces of crystalline structure, but sometimes forming dendritic crusts. When in sufficient masses to be observed, it has a metallic lustre and silver-white fracture, the surface of which soon tarnishes. $G.=6.71$.

	Se	Cu	Ag	Fe	Tl
1.	39.85	53.14	4.73	0.54	0.38=98.64.
2.	38.74	52.15	8.50	0.54	tr.=99.74.

Nordenskiöld remarks that the varying percentage of the silver is possibly due to an admixture of eucairite, and that the amount of thallium in the analyses is probably too low.

BISMUTHAURITE or **BISMUTHIC GOLD** *Shep.*, Min., 304, 1857. A furnace product (Am. J. Sci., II. xiv. 112, 1867).

BOBIERITE. Phosphate de Magnésie tribasique et hydraté *Bobierre*, Les Mondes, April 1868, 691; *Bobierite Dana* (523A).—Monoclinic; in six-sided prismatic forms. Crystals minute, and forming crystalline agglomerations, imbedded in guano, looking like white spots in the guano. Crystals colorless. Composition, according to Bobierre (l. c.), Mg^3P with water. It is insoluble in water, but easily soluble in acids without effervescence. Contains not a trace of lime.

From the guano of Mexillones, on the Peruvian Coast.

BOULANGERITE (122, p. 99). Found, according to v. Zepharovich, at Przbiram in Bohemia, with jamesonite (Ber. Ak. Wien, lvi. 1867). He gives the following analyses:

	S	Sb	Pb	Fe	
1. Eusebi vein, <i>fib.</i>	18.77	26.81	54.42	tr.	=100 E. Boricky.
2. " " <i>comp.</i>	19.77	24.46	54.32	tr.	=98.55 E. Boricky.
3. Adelberti " "	18.89	21.87	57.69	0.84, Ag 0.25, Zn 0.47	=100.01 Helmhacker.
4. " " "	18.64	24.31	55.06	1.46	=99.47 Boricky.
5. " " <i>fib.</i>	18.47	24.17	55.96	Fe, Mn 0.08, Cu 0.22, Ag 0.84	=99.74 Helmh.
6. " " "	17.60	22.81	58.13	0.57	=99.11 Boricky.
7. " " <i>capil.</i>	17.95	22.91	57.28	1.35, Ag 0.06, Zn 0.34	=99.89 Helmhacker.
8. " " "	17.74	25.11	57.42	tr.	=100.27 Boricky.
9. " " <i>needles</i>	20.49	27.72	48.38	3.47	=100.06 Boricky.

1, fine fibrous, $G.=5.75$; 2, subfibrous, $G.=5.91$; 3, compact, with subconchoidal fracture, $G.=5.877$, associated with zinc-blende; 4, associated with a coarse granular to fibrous galenite, $G.=5.809$; 5, found in nests in galenite, $G.=5.89$; 6, $G.=6.08$; 7, in short, felt-like, capillary crystals, with quartz and calcite; 9, associated with quartz, $G.=5.52$.

F. A. Genth obtained for boulangierite from Echo District, Union Co., Nevada (Am. J. Sci., II. xlv. 320, 1868), S 17.91, Sb 26.85, Pb 54.82, Ag 0.42=100. Occurs in indistinct acicular striated crystals, in white quartz.

BROCHANTITE (701, p. 664). F. A. Genth has found this mineral in minute crystals, showing the planes $I, i-4$, and $l-4$, with the copper ores at Bill Williams Fork, Arizona. For analyses of specimen, mixed with atacamite, chrysocola, etc., see Am. J. Sci., II. xlv. 321, 1868.

CALAVERITE *F. A. Genth*, Am. J. Sci., II. xlv. 314, 1868. (98A.) A new tellurid of gold, from the Stanislaus mine, Calaveras Co., Cal. It occurs massive, without crystalline structure; color bronze-yellow; streak yellowish-gray; brittle; fracture uneven, inclining to subconchoidal. *Composition*.—Au $Te_4=Te$ 55.53, Au 44.47. Analyses 1, 2, from 2 1.45 p. c. quartz deducted:

1.	Te 55.89	Au 40.70	Ag 3.52=100.11.
2.	[56.00]	40.92	3.08=100.

B.B. on charcoal burns with a bluish-green flame, yielding globules of very yellow gold. Dissolves in nitro-muriatic acid, with separation of chlorid of silver.

Calaverite is frequently associated with petzite, to which a portion of the silver in the analyses is attributed. In a comparison of the results of analyses of sylvanite from Transylvania, Dr. Genth makes the suggestion that the so-called "gelbers" (see anal. 8, 9, p. 82) is nothing else than impure calaverite.

CALOTITE (715, p. 670). Von Rath, in his elaborate papers on calcite (Pogg., cxxxii.), mentions,