A

SYSTEM

OF

# MINERALOGY.

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# DESCRIPTIVE MINERALOGY,

COMPRISING THE

MOST RECENT DISCOVERIES.


BY

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

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FIFTH EDITION.

REWRITTEN AND ENLARGED, AND ILLUSTRATED WITH UPWARDS OF SIX HUNDRED WOODCUTS.

NEW YORK:
JOHN WILEY & SON, PUBLISHERS,
NO. 2 CLINTON PLACE.
1868.

Monoclinic, with one perfect cleavage, and a second inclined 129° to the other, both parallel to the orthodiagonal.

H.=5—5·5. G.=3·4—3·53. Lustre waxy or pearly, weak. Color black. Subtranslucent.

Analysis by Ficinus (l. c.): P 12·82, S 4·07, Fe 58·85, Mn 6·82, Ca 0·17, Si 0·17, H 16·87. B.B. fuses to a semimetallic slag, which is magnetic. In acids hardly attacked.

Found at Bodenmais, with garnet, iolite, etc. Also reported as occurring at the Gottesgab mine, near Bodenmais, in crystals.

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## HYDROUS ANTIMONATES.

**586. BINDHEIMITE.** Blei-Niere (fr. Nertschinsk) *Karst.*, Tab., 59, 77, 78, 1800 (citing anal. by *Bindheim*, Schrift. Ges. Nat. Fr. Berlin, x. 374, 1792). Antimonate of Lead. Antimonbleispath, Antimonsaures Bleioxyd, *Germ.* Stibiogalenit *Glock.*, Syn., 257, 1847. Bleinerite *Nicol*, Min., 383, 1849.

Amorphous, reniform, or spheroidal; also earthy or incrusting. Structure sometimes curved lamellar.

H.=4. G.=4·60—4·76, Siberia, Hermann; 5·05, white, Cornwall, Heddle; 4·707, brown, ib., Heddle. Lustre resinous, dull, or earthy. Color white, gray, brownish, yellowish. Streak white to grayish or yellowish. Opaque to translucent.

Comp.—$\dot{P}b^3\ddot{S}b+4\dot{H}$, Siberian mineral, Hermann; $\dot{P}b^3\ddot{S}b+2\frac{1}{2}\dot{H}$, Horhausen, Ramm.; $\dot{P}b^3\ddot{S}b^2+10\dot{H}$, Cornwall, Heddle, anal. 4, 6; the true nature not fully understood.

Analyses: 1, Hermann (J. pr. Ch., xxxiv. 179); 2, C. Stamm (Pogg., c. 618); 3–5, Heddle (Phil. Mag., IV. xii. 126, Greg & Letts. Min., 373); 6, Percy (ib.):

| | | $\ddot{S}b$ | $\dot{P}b$ | $\dot{H}$ | Fe | Ca | $\dot{A}s$ | |
|---|---|---|---|---|---|---|---|---|
| 1. | Nertschinsk | 31·71 | 61·38 | 6·46 | — | — | — | =100 Hermann. |
| 2. | Horhausen | 41·13 | 48·84 | 5·43 | 3·35 | *tr.* | *tr.*, Cu 0·84 | =99·59 Stamm. |
| 3. | Cornwall, *white* | 42·22 | 47·04 | 11·50 | — | — | — | =100·76 Heddle. |
| 4. | " " | 42·44 | 46·68 | 11·98 | — | — | — | =101·10 Heddle. |
| 5. | " *brown* | 46·70 | 43·94 | 6·46 | 1·44 | 1·34 | *tr.* | =99·88 Heddle. |
| 6. | " | 47·36 | 40·73 | 11·91 | — | — | — | =100 Percy. |

Pfaff early found in the Nertschinsk mineral (Schw. J., xxvii. 1) $\ddot{S}b$ 43·96, $\dot{A}s$ 16·42, $\dot{P}b$ 33·10, Fe 0·24, Cu 3·24, Si 2·34, S 0·62, Fe, Mn, etc., 3·32=103·23. Bindheim (l. c.) made it to contain $\dot{A}s$ 25, $\dot{P}b$ 35, Fe 14, $\dot{H}$ 10, Si, Al 9, Ag 1·15=95·15.

**Pyr., etc.**—In the closed tube gives off water. B.B. on charcoal reduced to a metallic globule of antimony and lead, coating the charcoal white at some distance from the assay, and yellow nearer to it.

**Obs.**—A result of the decomposition of other antimonial ores.

From Nertschinsk in Siberia; Horhausen; near Endellion in Cornwall, with jamesonite, from which it is derived.

*Bleinierite* is German for *Lead-kidney-ite!* and *Stibiogalenite* implies the presence of galena or sulphid of lead; hence the substitute above after the earliest analyst of the species.

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## B. NITRATES.

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| **590. NITRE** | $\dot{K}\dot{N}$ | $N\Theta_2\vert\Theta\vert K$ |
| **591. SODA NITRE** | $\dot{N}a\dot{N}$ | $N\Theta_2\vert\Theta\vert Na$ |
| **592. NITROCALCITE** | $Ca\dot{N}+\dot{H}$ | $(N\Theta_2)_2\vert\Theta_2\vert\Theta a+aq$ |
| **593. NITROMAGNESITE** | $\dot{M}g\dot{N}+n\dot{H}$ | $(N\Theta_2)_2\vert\Theta_2\vert Mg+n\,aq$ |