

Antimonates; also Antimonites, Arsenites.

A number of antimonates have been included in the preceding pages among the phosphates, arsenates, etc.

Atopite. Perhaps calcium pyroantimonate, $\text{Ca}_2\text{Sb}_2\text{O}_7$. In isometric octahedrons. $H. = 5.5-6$. $G. = 5.03$. Color yellow to resin-brown. From Långban, Sweden.

Bindheimite. A hydrous antimonate of lead. Amorphous, reniform; also earthy or incrusting. Color gray, brownish, yellowish. A result of the decomposition of other antimonial ores; thus at Horhausen; in Cornwall; Sevier county, Arkansas.

Romeite. An antimonite of calcium, perhaps CaSb_2O_4 . In groups of minute square octahedrons. $H.$ above 5.5. $G. = 4.713$. Color hyacinth- or honey-yellow. From St. Marcel, Piedmont.

Nadorite. PbClSbO_2 . In orthorhombic crystals. $H. = 3.5-4$. $G. = 7.02$. Color brownish yellow. From Djebel-Nador, Constantine, Algeria.

Ecdemite. Heliophyllite. Perhaps $\text{Pb}_4\text{As}_2\text{O}_7 \cdot 2\text{PbCl}_2$. In crystals massive, and as an incrustation. $G. = 6.89-7.14$. Color bright yellow to green. From Långban, Sweden; also Pajsberg (*heliophyllite*).

Ochrolite. Probably $\text{Pb}_4\text{Sb}_2\text{O}_7 \cdot 2\text{PbCl}_2$. In small crystals, united in diverging groups. Color sulphur-yellow. From Pajsberg, Sweden.

Trippkeite. Essentially an arsenite of copper. In small bluish-green, tetragonal crystals. From Copiapo, Chili.

Tripuyite. An iron antimonate. $2\text{FeO} \cdot \text{Sb}_2\text{O}_5$. In microcrystalline aggregates of a dull greenish-yellow color. From Tripuy, Brazil.

Derbylite. An antimo-titanate of iron. In prismatic, orthorhombic crystals. $H. = 5$. $G. = 4.53$. Color black. Tripuy, Brazil.

Lewisite. $5\text{CaO} \cdot 2\text{TiO}_2 \cdot 3\text{Sb}_2\text{O}_5$. In minute yellow to brown isometric octahedrons. Tripuy, Brazil.

Mauzeilite. A titano-antimonate of lead and calcium, related to lewisite. In dark brown isometric octahedrons. Jakobsberg, Sweden.

AMMIOLITE. A doubtful antimonite of mercury; forming a scarlet earthy mass. From Chili.

Phosphates or Arsenates with Carbonates, Sulphates, Borates.

Staffelite and *Dahlite* (p. 499) may belong here.

Diadochite. A hydrated phosphate and sulphate of ferric iron; Thuringia. *Destinezite* is similar; from Belgium.

Pitticite. A hydrated arsenate and sulphate of ferric iron. Reniform and massive. Yellowish and reddish brown. From Saxony, Cornwall, etc.

Svanbergite. A hydrated phosphate and sulphate of aluminium and calcium. In rhombohedral crystals. Color yellow to yellowish brown, rose-red. From Horrsjöberg, Sweden.

Beudantite. A phosphate or arsenate with sulphate of ferric iron and lead; formula doubtful. In rhombohedral crystals. Color green to brown and black. From Cork; Dernbach and Horhausen, Nassau.

Lindackerite. Perhaps $3\text{NiO} \cdot 6\text{CuO} \cdot \text{SO}_3 \cdot 2\text{As}_2\text{O}_5 \cdot 7\text{H}_2\text{O}$. In rosettes, and in reniform masses. Color verdigris- to apple-green. From Joachimsthal.

Lüneburgite. $3\text{MgO} \cdot \text{B}_2\text{O}_3 \cdot \text{P}_2\text{O}_5 \cdot 8\text{H}_2\text{O}$. In flattened masses, fibrous to earthy structure. From Lüneburg, Hannover.

Lossenite. A hydrous iron arsenate and lead sulphate from Laurion, Greece.

Nitrates.

The Nitrates being largely soluble in water play but an unimportant rôle in Mineralogy.

SODA NITER.

Rhombohedral. Axis $c = 0.8276$; $rr' = 73^\circ 30'$. Homœomorphous with calcite. Usually in massive form, as an incrustation or in beds.

Cleavage: r perfect. Fracture conchoidal, seldom observable. Rather sectile. $H. = 1.5-2$. $G. = 2.24-2.29$. Luster vitreous. Color white; also reddish brown, gray and lemon-yellow. Transparent. Taste cooling. Optically —. $\omega_v = 1.5874$, $\epsilon_v = 1.3361$.

Comp.—Sodium nitrate, NaNO_3 , = Nitrogen pentoxide 63.5, soda 36.5 = 100.

Pyr., etc.—Deflagrates on charcoal with less violence than niter, causing a yellow light, and also deliquesces. Colors the flame intensely yellow. Dissolves in three parts of water at 60°F .

Obs.—From Tarapaca, northern Chili, and also the neighboring parts of Bolivia; also in Humboldt Co., Nevada; near Calico, San Bernardino Co., Cal.

Niter. Potassium nitrate, KNO_3 . In thin white crusts and silky tufts.

Nitrocalcite. Hydrous calcium nitrate, $\text{Ca}(\text{NO}_3)_2 \cdot n\text{H}_2\text{O}$. In efflorescent silky tufts and masses. In many limestone caverns, as those of Kentucky.

Nitromagnesite. $\text{Mg}(\text{NO}_3)_2 \cdot n\text{H}_2\text{O}$. In efflorescences in limestone caves.

Nitrobarite. Barium nitrate, $\text{Ba}(\text{NO}_3)_2$. Isometric-tetartohedral. From Chili.

Gerhardtite. Basic cupric nitrate, $\text{Cu}(\text{NO}_3)_2 \cdot 3\text{Cu}(\text{OH})_2$. In pyramidal orthorhombic crystals. $G. = 3.426$. Color emerald-green. From the copper mines at Jerome, Arizona.

Darapskite. $\text{NaNO}_3 \cdot \text{Na}_2\text{SO}_4 \cdot \text{H}_2\text{O}$. In square tabular crystals. Colorless. From Atacama, Chili.

Nitroglauberite. $6\text{NaNO}_3 \cdot 2\text{Na}_2\text{SO}_4 \cdot 3\text{H}_2\text{O}$. From Atacama.

Lautarite. Calcium iodate, $\text{Ca}(\text{IO}_3)_2$. In prismatic crystals, colorless to yellowish. From the sodium nitrate deposits of Atacama.

Dietzeite. A calcium iodo-chromate. Monoclinic; commonly fibrous or columnar. $H. = 3-4$. $G. = 3.70$. Color dark gold-yellow. From the same region as lautarite.