

Reviews and Notices.

HEXAGONITE.—This is shewn by G. König (*Jahr. f. Min.*, 1877,) to be a variety of tremolite.

J. H. C.

MOTTRAMITE.—(H. E. Roscoe, *Proc. Roy. Soc.*, xxv. 109). This mineral occurs as a thin crystalline incrustation on keuper sandstone, at Alderley Edge and at Mottram, St. Andrews, Cheshire. It is a black, velvety, sub-translucent, yellowish brown by transmitted light, resinous; streak yellow. H about 3. G=5.894. Comp. mean of two analyses.

V ₂ O ₅	17.14
PbO	50.97
CuO	19.10
MnO }	2.52
FeO }	
ZnO }	
CaO	2.13
MgO	0.26
H ₂ O	3.63
SiO ₂	1.06

This agrees with the following formula. (Cu, Pb)₃ V₂O₅ + 2 (Cu Pb) (OH)₂, or analogous to Dihydrate and Erinite.

J. H. C.

HYDROCASTORITE.—(G. GRATTAROLA, *Jahrb. f. Min.*, 1867, p. 411). Occurs as a white mealy incrustation on the mineral *Castor*, consisting of microscopic needles, at San Piero, Elba. H=2. G=2.16. Composition.

SiO ₂	59.59
Al ₂ O ₃	21.35
CaO	4.38
H ₂ O	14.66

99.98

J. H. C.

BISMUTHOSPHÆRITE.—(A. Weisbach, *Jahb. f. Min.*, 1877, p. 404-5). This is the *Arsen-wismuth*, of Werner. The author shews that it is really anhydrous basic Carbonate of Bismuth, the composition being—

Bi ₂ O ₃	.. .. .	88·58
CO ₂	.. .. .	8·97
SiO ₂	.. .. .	0·28

97·83

The formula Bi₂ CO₃, nearly represents this. The specimens were from Neustädcl, near Schneeberg, and consisted of dull brown spherules, often enclosing a kernel of native bismuth.

J. H. C.

CHALKOPHANITE.—(MOORE, *Chem. Cents.*, 1877, p. 8). This occurs on Calamine from New Jersey, in rhombic crystals. Blue to iron black, metallic lustre., H=2·5, G=3·907. No analysis is given.

J. H. C.

IHLEITE.—(A. SCHRAUF, *Jahrb. f. Min.*, 1877, p. 250—257). Amorphous, globular, &c., fibrous reticulate structure, soluble in cold water, deposits basic ferric sulphate on warming, occurs with graphite at Mugran, in Bohemia. Composition.

SO ₃	38·2	37·4	37·2
FeO	2·1	..	1·4
Fe ₂ O ₃	} ..	24·5	26·1	} 25·6
Al ₂ O ₃				
CaO	0·4	0·3
H ₂ O	35·5	35·6	35·3
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		100·3	99·8	99·8

This is a secondary product near to *Misy*, but containing more water.

J. H. C.

SAYNITE.—According to LASPEYRES, (*Jahrb. f. Min.*, 1877, 297,) is a mixture of *Polydymite*, with bismuth-glance.

J.H.C.

POLYDYMITE.—(H. LASPEYRES, *Jahrb. f. Min.*, 1877, p. 296—297). This occurs in maclcd octahedrons, often of tabular appearance. H=4—5, G=4·808—4·816, light steel grey on freshly broken surfaces, which

are soon tarnished to a dark-grey or yellow. In matrass decrep., on charcoal fuses to a dark green magnetic bead. Comp.

Ni	..	..	..	..	..	..	..	53.508
Co	..	..	..	..	..	..	..	0.606
Fe	..	..	..	..	..	..	..	3.844
S	..	..	..	..	..	..	..	40.270
As	..	..	..	..	..	..	..	1.041
Sb	..	..	..	..	..	..	..	0.508

This corresponds very nearly to the formula Ni_4S_5 .

It occurs at Sayn-Alten Kirchen with millerite, bismuth-glance, &c. Some of the crystals were observed to be penetrated by needles of millenite.

J.H.C.

GINILSITE.—(C. RAMMELSBERG, *Jahrb. f. Min.*, 1877, p. 97—98). A greyish yellow mineral from the Ginil Alps. Its composition is—

SiO ₂	..	..	..	..	..	..	..	37.83
Al ₂ O ₃	..	..	..	..	..	..	..	7.77
Fe ₂ O ₃	..	..	..	..	..	..	..	15.63
CaO	..	..	..	..	..	..	..	26.67
MgO	..	..	..	..	..	..	..	9.73
H ₂ O	..	..	..	..	..	..	..	3.30
								100.93

LEADHILLITE.—(LASPEYRES, *J. f. Chem.* (2) XV, p. 317—319). This is shewn to contain 5 equivalents of water, and to be identical in crystalline form and chemical composition with *Maxite*.

J.H.C.

STRENGITE.—(A. NIES, *Jahrb. f. Min.*, 1877, p. 8—16). This mineral occurs in ironstone at Dünsberg, near Giessen, in globular, reniform, or radiofibrous masses, or occasionally in isolated crystals, isomorphous with *Scorodite*. The crystals are usually various shades of red, but occasionally white or colourless. H=3—4, G=2.87. Its composition is—

Fe ₂ O ₃	..	..	..	..	..	..	..	43.18
P ₂ O ₅	..	..	..	..	..	..	..	37.42
H ₂ O	..	..	..	..	..	..	..	19.40
								100.00

This agrees with the formula $\text{Fe}_2\text{O}_3, \text{P}_2\text{O}_5 + 4\text{H}_2\text{O}$, and consequently it is nearly allied to Scorodite and Barrandite.

J.H.C.

EOSPHORITE.—(G. J. BRUSH and E. S. DANA. *Am. Journ. Sci.*, May and July, 1878). Prismatic crystals, obtuse angle $104\frac{1}{2}^\circ$, probably rhombic crystals uniformly terminated by two pyramids of different elevations, nearly perfect macrodiagonal cleavage, also compact massive. $\text{H}=5$, $\text{G}=3.132-3.145$; vitreous to greasy; pink, greenish, bluish, yellowish to grey, sometimes resembling green *elæolite*; transparent to translucent. B.B. cracks open and fuses at 4 to black magnetic mass, reactions for Mn and Fe; soluble in HCl and HNO_3 . Hydrous phosphate of manganese, iron, and alumina, corresponding to the formula $\text{Al}_2 \text{P}_2 \text{O}_8 + 2\text{H}_2 \text{RO}_2 + 2\text{Aq}$. The form is closely related to *childrenite*.

J.H.C.

DICKINSONITE.—(*ibid.*). Foliated, massive, lamellar, radiate, &c., occasionally in tabular crystals, apparently hexagonal but really rhombic (or oblique), perfect basal cleavage. $\text{H}=3.5-4$, $\text{G}=3.338$, vitreous, on cleavages pearly; various shades of green; transparent to translucent. In closed tube gives off water with acid reaction, fuses at 1 to black magnetic globule, soluble in acids; with fluxes reactions for Fe and Mu. Hydrous phosphate of iron and manganese with alkalis.

J.H.C.

TRIPLOIDITE.—(*ibid.*). Crystalline aggregates, fibrous, parallel, divergent, &c., occasionally prismatic crystals imbedded in quartz, form closely related to *Wagnerite*. $\text{H}=4.5-5$, $\text{G}=3.697$; vitreous to greasy-adamantine; yellowish to reddish-brown, transparent to translucent, fuses in naked flame; B.B. colors flame pale-green; reactions for Fe and Mn, soluble in HCl and HNO_3 . Hydrous phosphate of iron and manganese corresponding to the formula $\text{R}_2\text{P}_2\text{O}_8 + \text{H}_2\text{RO}_2$, much resembles *triplite*. Crystals closely related to *wagnerite*.

J.H.C.

LITHIOPHILITE.—(*ibid.*, June and July, 1878). This is salmon-coloured, sub-resinous. $\text{H}=4$, $\text{G}=3.424$; B.B. fuses from 1 to 1.5, colouring flame bright red with streaks of green. Composition agrees with formula $\text{Li}_3 \text{PO}_4 + \text{Mn}_3\text{P}_2\text{O}_8$, but about 4 p.c. iron replacing part of the manganese. It occurs with *spodumene* and *albite*, at Fairfield Co., Conn.

J.H.C.

LAVENDULITE.—(E. GOLDSMITH, *Acad. Nat. Sci. Phil.*, 11, 1877). This occurs in large blocks of Cobalt ore from Chili, apparently an aggregation of minute crystals. Analysis of purified mineral.

As ₂ O ₅	.. .. .	46·89
CuO	.. .. .	40·10
CoO	.. .. .	2·51
NiO	.. .. .	1·35
H ₂ O	.. .. .	9·13

Corresponding to the formula As₂O₅, (CuO, CoO, NiO)₃ + 3H₂O.

J.H.C.

PROTOVERMICULITE, CULSAGEEITE, AND JEFFERISITE —(Prof. Geo. KÖNIG, *ibid*). These micaceous minerals have been examined and compared by Prof. König. The following analyses are quoted—

	PROTOVERMICULITE.		CULSAGEEITE.	JEFFERISITE.
SiO ₂	.. 33·28	.. 41·62	37·58	33·03
Al ₂ O ₃	.. 14·88	.. 18·60	19·73	17·38
Fe ₂ O ₃	.. 6·36	.. 7·25	5·95	7·41
FeO	.. 0·57	.. 0·71	0·58	1·44
MgO	.. 21·52	.. 26·90	25·13	20·16
H ₂ O	.. 3·36	.. 4·20	11·09	20·90
Do.(hygros)	20·54	—	—	—

The last three analyses correspond to the following formula—

Protovermiculite, 6RO, 2R₂O₃, 6SiO₂ + 2H₂O.

Culsageeite, .. 6RO, 2R₂O₃, 6SiO₂ + 6H₂O.

Jefferisite, .. 5RO, 2R₂O₃, 5SiO₂ + 6H₂O.

J. H. C.

OCCURRENCE OF TIN IN SILICATES.—(F. SANDBERGER, *from the Sitzungsberichte of the Bavarian Academy*.)—In the *Berg und Huttenmannische Zeitung*, for 1877, the author has endeavoured to show that the olivines, hornblendes, augites, and black micas of crystalline rocks of all periods contain heavy and noble metals; and that only such metals are found in lodes in any of these rocks as are traceable in the rocks themselves. He supports this position by an analysis of the black mica of the Schapbachthal gneiss, in which all the metals found in the Schapbach lodes have been proved to exist except silver. Dr. Sandberger remarked that no one had, as yet, discovered tin in a silicate. He had, however, tested the lithia mica of Paris (Maine) and of Rozena, and obtained a decided yellow precipitate with sulphuretted hydrogen. He points out accordingly that these lithia micas are probably the original source of the tin which is

found in the lodes, and he considers that stannic acid may probably partially replace silica, as is already known to be the case with titanitic acid. This possibility affords hope of the future discovery of a dimetric form of silica.

R. H. S.

Notices.

The Annual Meeting of the Mineralogical Society of Great Britain and Ireland will be held in the Divinity School Theatre, Trinity College, Dublin (by the kind permission of the authorities), on Wednesday, Aug. 14th, 1878, at 2.30 p.m. The chair will be taken by the President, Mr. H. C. Sorby, F.R.S., who will deliver an address to the members.

The Council will meet in the Committee Room at 2 p.m.

Communications for this Meeting should be addressed to Mr. J. H. Collins, the Secretary of the Mineralogical Society, care of the Rev. Professor Haughton, Trinity College, Dublin.

The Secretary will be glad to learn the present addresses of the following members and associates :

Mr. W. Curphy.
Mr. W. E. Koch.
Mr. John Mc Lellan.
Mr. J. P. Cornforth.