Mineralogical Chemistry.

Analyses of Norwegian Pyrites. EYVIND BOEDTKER (*Chem. Centr.*, 1906, ii, 1863; from *Rev. Gén. Chim.*, 1906, **9**, 323—326).—Norwegian pyrites is much used for the production of sulphur and copper, and in value ranks next to Spanish pyrites. In forty-three analyses the sulphur varies from 37·65 to 49·26% (mean 44%), and the copper from 0·14 to 3·62% (mean 2%). The following are two detailed analyses:

	S.	Cu.	Fe.	Mn.	Co.	Ni.	Zn.	Pb.	Bi.	As.	Ag.
I.	43·03	2·504	39·54	0·064	trace	—	0·419	—	trace	0·006	0·00148
II.	42·59	1·490	40·11	0·032	0·114	trace	0·720	trace	—	nil	0·00042

	CaO.	Sr,Ba.	MgO.	P_2O_5.	CO_2.	C.	SiO_2 (silicates).	O (calc.).
I.	3·66	trace	0·43	0·028	1·94	—	7·58	0·89
II.	2·76	trace	0·70	0·041	2·97	trace	7·16	1·58

L. J. S.

Composition of Lengenbachite. ARTHUR HUTCHINSON (*Min. Mag.*, 1907, **14**, 204—206).—Analysis of this new mineral (described by R. H. Solly in 1905), from the Binnenthal in Switzerland, gave:

Pb.	Ag.	Cu.	Fe.	As.	Sb.	S.	Total.	Sp. gr.
57·89	5·64	2·36	0·17	13·46	0·77	19·33	99·62	5·85

This agrees with the formula $6PbS,(\frac{3}{5}Ag,\frac{2}{5}Cu)_2S,2As_2S_3$ or $7RS,2As_2S_3$.

L. J. S.

Artificial Formation of Magnetite and Sillimanite. P. P. SUSTSCHINSKÝ (*Trav. Soc. Nat., St. Pétersbourg*, 1906, **37**, pp. 1—9 *Russ*, 9—14 *Ger.*)—A description is given of a crystalline glaze, which had been accidentally formed on a porcelain plate by the melting of iron-pyrites contained in the clay of the seggar in which the plate was baked. Where the molten iron-pyrites had dropped on the plate, dark brown spots were formed, and a microscopical examination of these in thin section proved the presence of skeletal groups of magnetite octahedra and needles of sillimanite. L. J. S.

New Method of Representing Van't Hoff's Investigations on Oceanic Salt Deposits. II. ERNST JÄNECKE (*Zeitsch. anorg. Chem.*, 1907, **52**, 358—367).—The paper contains a further development of the author's graphic method of treating these problems (compare Abstr., 1906, ii, 833), and is illustrated by numerous diagrams. G. S.

Graphitic Iron in a Meteorite. WIRT TASSIN (*Proc. U.S. National Museum*, 1906, **31**, 573—574).—A septarian nodule, extracted from a sample of the Cañon Diablo meteoric iron, consists of septa of metal like that of the rest of the mass, whilst the interseptal veins contain crystalline graphite, amorphous carbon, troilite, and a carbide of iron having the following composition :

Fe.	Ni.	Co.	Si.	C.	P.	Total.	Sp. gr.
88·84	4·00	trace	2·00	4·35	0·87	100·06	6·910

This has the form of irregular, angular, and foliated masses, which are strongly magnetic, of a dark steel-grey colour, with metallic lustre, and soft enough to leave a mark on paper; in its characters it thus differs from cohenite. L. J. S.

Composition and Structure of the Hendersonville (North Carolina) Meteorite. GEORGE P. MERRILL, with analysis by WIRT TASSIN (*Proc. U.S. National Museum*, 1907, **32**, 79—82).—This meteoric stone was found in 1901, but probably fell about 1876; its original weight was about 6 kilos. It consists of enstatite, a monoclinic pyroxene, and olivine, with metallic particles. The structure is chondritic, and is suggestive of a partial recrystallisation of fine detrital material. Analyses are given of the metallic portion and of the silicates soluble and insoluble in dilute hydrochloric acid; from these the composition of the whole is calculated as :

Fe.	Ni.	Co.	S.	P.	SiO_2.	FeO.	Al_2O_3.	Cr_2O_3.
2·37	0·21	0·01	1·61	0·012	46·06	14·33	2·20	0·23

CaO.	MgO.	K_2O.	Na_2O.	Residue (chromite).	Total.
2·13	28·62	0·10	0·96	0·51	99·352

The corresponding mineralogical composition is: nickel-iron, 2·59; troilite, 4·43; schreibersite, 0·08; chromite, 0·80; olivine, 40·48; pyroxenes, 51·62%. L. J. S.