PROCEEDINGS OF SOCIETIES

THE PHILADELPHIA MINERALOGICAL SOCIETY

Academy of Natural Sciences of Philadelphia, September 8, 1921

A stated meeting of the society was held on the above date, Dr. Hawkins presiding, and ten members and four visitors being present. The minutes of the last meeting were read and approved. Messrs. William T. Clay and Elbert W. Chalfont were nominated for active membership. It was voted to defer nomination of officers to the next meeting.

Mr. Oldach reported a trip to the Falls of French Creek Mine, September 3–5, taken by Messrs. Frankenfield, Hagey, Jones, Trudell and himself. Besides the usual run of minerals, titanite, pyroxene, wernerite and microscopic heulandite were found.

Mr. Frankenfield described a two weeks' trip to mineral localities of Massachusetts, Rhode Island and Connecticut. Some of the minerals obtained on this trip were exhibited: fibrous quartz and green talc from Providence, R. I.; microcline crystals from Bradford, R. I.; calcite from Meriden, Ct.; datolite from Springfield, Mass.; black tourmaline and cream-colored anthophyllite from the Pelham asbestos mine. From Strickland's Quarry, Portland, Ct., terminated black tourmaline, quartz with albite inclusions, spodumene, lepidolite and a 7 x 12 cm. columbite crystal.

Mr. Knabe reported a trip to Leiper's quarry and Lenni, finding hematite at the latter. Mr. Oldach reported trips to Boothwyn and Bryn Mawr with negative results. Mr. Warford, having made a trip to the farm of a Mr. Barr near Valley Forge, had invited Mr. Barr to attend and describe the mineral occurrences there.

Dr. Hawkins described some of his recent crystallographic work, and presented a split quartz boulder with tourmalines on its surface to the Academy collection.

JOHN S. FRANKENFIELD, *Secretary pro tem.*

NEW MINERAL NAMES

FAMILY 4. OXIDES, ETC.

PICROCHROMITE; new species and subspecies arrangement in spinel-chromite group

EDWARD S. SIMPSON: A graphic method for the comparison of minerals with four variable components forming two isomorphous pairs. *Min. Mag.*, **19**, 99–106, 1920.

NAME: Evidently from the Greek *pikros*, bitter, referring to the bitter taste of magnesium salts, and *chromite*.

PHYSICAL PROPERTIES: Presumably intermediate between those of chromite and those of spinel.

CHEMICAL PROPERTIES: The name is proposed for members of the isomorphous spinel-chromite series approaching the composition $MgCr_2O_4$, the theory for which is: MgO 21.0, Cr_2O_3 79.0 per cent. The only analysis in the literature falling near this is one by T. Sterry Hunt of a "chromite" from Lake

Memphremagog, Canada (Logan's *Rept. Geol. Canada*, 1849). As recalculated by Simpson to allow for ferric iron wihch was not determined but must have been present, to bring the ratio of RO : R_2O_3 to 1 : 1, this gives: MgO 18.13, FeO 6.48, Fe_2O_3 16.45, Al_2O_3 11.30, Cr_2O_3 49.75, sum 102.11 per cent. Two other analyses on record, one of "magnesiochromite" from Dun Mt., N. Z., by T. Petersen (1869) and one of the same material from New Caledonia by E. Glasser (1904), also fall within this species, but in a subspecies lying toward chromite proper, here termed "chrompicotite."

DISCUSSION: The above is one of the species in a proposed new treatment of the spinel-chromite group, which is divided as follows: (Modified from original by abstractor).

		Formula range, in 4 molecules ($4RO.4R_2O_3$)								Dominant RO:
Species	Subspecies	Mg	Fe	to	Mg	Fe	Al	Cr	to Al	Cr	R_2O_3
Spinel	Spinel	4	0		3	1	4	0	3	1	—
Spinel	Ceylonite	3	1		2	2	4	0	2	2	<1
Spinel	Magnochromite	4	0		2	2	3	1	2	2	>1
Hercynite	Hercynite	0	4		1	3	4	0	3	1	—
Hercynite	Picotite	2	2		1	3	4	0	2	2	<1
Hercynite	(unknown)	2	2		0	4	3	1	2	2	>1
Chromite	Chromite	0	4		1	3	1	3	0	4	—
Chromite	(unknown)	2	2		0	4	2	2	1	3	>1
Chromite	Beresofite	2	2		1	3	2	2	0	4	<1
Picrochromite	Picrochromite	4	0		3	1	1	3	0	4	—
Picrochromite	Chrompicotite	2	2		3	1	2	2	0	4	<1
Picrochromite	(unknown)	4	0		2	2	2	2	1	3	>1

These relations are best brought out by plotting in a rectangular diagram (see orig.). The only dependable analyses found in the literature, 13 in number, are recalculated and assigned to species and subspecies on this basis. A new occurrence of spinel near Namban, W. Australia, is described, with 2 analyses which show it to fall into the subspecies ceylonite. E. T. W.

DISCREDITED SPECIES

FAMILY 5. CARBONATES

Rosasite

C. PERRIER: The true nature of rosasite. *Rend. Accad. Lincei*, **30**, 119, 1921.

A new analysis gave: H_2O 8.58, CO_2 20.18, CuO 41.58, ZnO 28.96, PbO 0.23, NiO 0.04, MgO 0.21, Fe_2O_3 0.31, insol. 0.18, sum 100.27 per cent. This yields the ratio $H_2O : CO_2 : R''O = 1.04 : 1 : 1.93$, corresponding to a zinciferous malachite, (Cu, Zn) CO_3.(Cu, Zn) $(OH)_2$. [This analysis seems to the abstractor more correct than the previous one, on the basis of which this mineral had been announced as a new species; see Dana App. II, p. 80.]

H. S. Washington.