

PHYSICAL AND OPTICAL PROPERTIES: Colorless to delicate pink in mass.  $a=1.642$ ,  $\gamma=1.654$ .  $2V=45^\circ - 50^\circ$ .  $c=\gamma$ ,  $b=a$ . Low titanium specimens are not pleochroic, a higher content of titanium raises the indices and the mineral becomes pleochroic in shades of pink.

OCCURRENCE: Found in fused argillaceous inclusions in Tertiary eruptive rocks of the Western Isles of Scotland. Occurs as abundant prisms associated with rare plates of corundum. It is also abundantly developed in many artificial melts and in porcelains, being the material usually called sillimanite. Its similarity to sillimanite is very great. The 3:2 compound, mullite, is the only one stable above  $1000^\circ$ . Mullite should be found in contact rocks that have been highly heated.

DISCUSSION: The discovery of mullite is a striking example of the application of physical-chemical methods to mineralogy. The mineral was first noted in artificial preparations and later sought for in argillaceous rocks that had been subjected to a high heat.

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#### DOUBTFUL SPECIES

##### Fourmarierite

H. Buttgenbach: La Fourmari rite, nouvelle esp ce min rale. *Ann. soc. geol. Belg.*, p. 41, 1924.

NAME: In honor of the geologist, P. Fourmari r.

CHEMICAL PROPERTIES: Exact composition unknown. Contains uranium, lead, water and perhaps silica. Soluble in acids, gives water in closed tube. Before the blow-pipe infusible but blackens.

CRYSTALLOGRAPHIC PROPERTIES: Orthorhombic.  $a:b:c=0.8832:1:0.8115$ . Forms, (100), (110), (111).

PHYSICAL AND OPTICAL PROPERTIES: Color red, brownish yellow in thin section. Pleochroic in shades of yellow. Luster adamantine. Sp. Gr. 6.046.  $H=3-4$ .  $n$  higher than 1.754. Plane of the optic axes parallel to (001).

OCCURRENCE: Found at Chinkolobwe, Katanga, Belgian Congo, associated with torbernite, kasolite and curite as an alteration product of pitchblende.

DISCUSSION: This is apparently a new species but its chemical composition and more complete optical data need still to be determined.

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#### NOTES AND NEWS

Professor Esper S. Larsen, Jr., of Harvard University has been appointed representative of the Mineralogical Society of America on the National Research Council, Division of Geology and Geography, in place of Dr. Edgar T. Wherry, who has served for three years.

The Leibniz Silver Medal, for 1924, of the Prussian Academy of Sciences has been given to Fraulein Lisa Meitner, professor of physics at the Kaiser Wilhelm Institute in Dahlem, near Berlin, in recognition of her researches on radium.

D. B. Dow, of the Petroleum Experiment Station of the Bureau of Mines, has been appointed engineer in charge at the new station now being established at the University of Wyoming.

Henry C. Berger has resigned from the research staff of the U. S. Bureau of Mines to assume the position of research chemist for the Armstrong Cork and Insulation Company of New Jersey.

The Bureau of Mines radium laboratory has been transferred to Washington, D. C., from Reno, Nevada. This change was made so that the work could be under the personal direction of Dr. S. C. Lind.

According to *Chemical and Metallurgical Engineering* an appropriation of \$90,000 will be asked of Congress next December by the Bureau of Mines, for the purpose of establishing a plant in the field for the extraction of oil from shale. The appropriation is to cover the construction of the plant, the land necessary for the plant and the shale.

On July 1 the metric system became the official standard of measurement in Japan and was so announced in an imperial ordinance, according to the Department of Commerce.

Material labeled muscovite and sold recently by V. W. Field of Salt Lake City, Utah, has been shown by Mr. Earl V. Shannon to be a variety of chlorite (penninite). Mr. Field has requested this note in order that those who purchased this material might be informed.

Mr. P. Walther of the Newark Mineralogical Society has recently secured several specimens of *crystallized* native iron. The material came from Madoc Co., California, and is of special interest because of its crystallized condition. The forms observed are, octahedron, cube, combination of octahedron and cube, pentagonal and rhombic dodecahedrons. Upon analysis 97.707% Fe was noted. The sp. gr. is 7.31.

Among those who received honorary degrees from the University of Liège, at the conclusion of the meetings of the French Association for the Advancement of Science, were Dr. Lacroix, secretary of the Paris Academy of Sciences, and Dr. Charles Barrois, professor of geology and mineralogy at Lille.

Dr. Oliver W. Huntington, formerly instructor of mineralogy at Harvard University, has died, aged sixty-five years.

Dr. E. S. Dana of Yale University has been elected corresponding member of the Vienna Academy of Sciences.

According to *Science Service* a new process for the fixation of atmospheric nitrogen was described before the chemical section of the British Association for the Advancement of Science. When a mixture of carbon monoxide and air is exploded in a bomb under one hundred atmospheres of pressure, the heat produced is absorbed by the nitrogen and rendered so active that it will unite with some of the oxygen of the air. From the oxides of nitrogen, nitric acid or nitrates can be derived.