Patrinite	0.97	——	258
Sillimanite	0.97	——	319
Andorite	0.98	0.87	41
Goslarite (Zinkvitriol)	0.98	0.56	375
Natrolite	0.98	0.35	246
Morenosite (Nickelvitriol)	0.98	0.57	249
Nagyagite	0.98	1.78	245
Gismondite	0.99	0.94	157
Andalusite	0.99	0.70	40
Guarinite	0.99	0.74	166
Epsomite	0.99	0.57	132
Astrophyllite	0.99	4.70	55
Stibnite (Antimonglanz)	0.99	1.02	47
Thomsonite	0.99	1.01	342
Leucophanite (Leukophan)	0.99	0.67	219
Ludwigite	0.99	——	224
Cerite	1.0–	0.81	89
Uranospinite	1.0–	1.46	355
Geocronite (Geokronite)	1.01	0.58	156
Enstatite [group]	1.03	0.59	281
Hydromagnesite	1.04	0.47	186
Kermesite (Antimonblende)	1.32	0.85	46
Polybasite	1.73	1.58	270
Epididymite	1.74	1.85	128
Humite	2.20	1.08	181

REPRESENTATIVES OF CLASSES WITH DIMINISHED SYMMETRY

CLASS HEMIMORPHIC

Struvite	0.55	0.62	Calamine, hemimorphite	0.78	0.48
Bertrandite	0.57	0.60	Prehnite	0.84	1.12

CLASS SPHENOIDAL

Epsomite	0.99	0.57
Leucophanite	0.99	0.67
Edingtonite	1.0–	0.95

PERI-ORTHORHOMBIC

Mica group	Monoclinic
Polybasite	Monoclinic

NOTES AND NEWS

A CALCIUM PHOSPHATE WITH RATIOS BETWEEN THOSE OF TRIPLITE AND SARCOPSIDE. EDW. F. HOLDEN. *Hillsboro, N. H.*— In the writer's note on sarcopside in the May number of this magazine (pages 99–102), the formula-types of the various fluo-phosphates and related minerals were compared, in table 3; it was also noted in discussing that table that a ferrous fluophosphate from Stoneham, Maine, has been found to show a composition lying approximately midway between the sarcopside and apatite ratios, R:(F, OH):(PO_4) = 12 : 3 : 7. The purpose of the present note is to call attention to another apparently intermediate mineral, also from Stoneham, the analysis of which is given (as a peculiar "apatite") in *U. S. Geol. Survey Bull* **591**, p. 349. The ratio derivable from this analysis is 11 : 6 : 4, which is $\frac{2}{3}$ of the way from sarcopside to triplite (7 : 2 : 4 + 2 × (2 : 1 : 1) = 11 : 6 : 4). The chief base in this mineral is calcium, so the member of the triplite group concerned is spodiosite; but the properties of the Stoneham mineral are so unlike those ascribed to spodiosite as to make its distinctness seem at least possible. Studies of the optical properties, with special reference to homogeneity, of minerals appearing to occupy intermediate positions in the series are necessary, however, before their status can be settled.

NOTE ON SULFUR AS A MINERAL OF THE MOON. EDGAR T. WHERRY, *Washington, D. C.*—While looking up information on the occurrence of the element sulfur, the writer came across a reference to its presence on the moon,[1] and as its identification there is probably not generally familiar to mineralogists, a note upon the matter has been prepared. On making a photograph of the moon by ultra-violet light, Professor R. W. Wood noticed the presence of a peculiar dark spot bordering the crater known as Aristarchus. A view of the same region taken thru a yellow screen showed no such spot, while one thru a violet screen showed it faintly. Trials of different terrestrial volcanic rocks with the same color screens showed that corresponding effects were obtained only in rocks containing a thin film of sulfur, no other known substance yielding exactly the same results. And, as the form and position of the Aristarchus spot suggests that it represents material thrown out from the crater by a volcanic blast, the conclusion is justified that it consists either of ash containing sulfur, or of a deposit of this element formed by condensation of ejected vapor. Here is a practically untouched field for research—developing of methods for identifying moon minerals—or should we say moonerals?

TWO AMERICAN OCCURRENCES OF EPIDESMINE. SAMUEL G. GORDON. *Academy of Natural Sciences of Philadelphia*—Epidesmine, the orthorhombic form of $(Ca, Na_2)Al_2Si_6O_{16}.6H_2O$ (the monoclinic form of which is represented by the common zeolite stilbite), was described by Rosicky and Thugutt[2] in 1913 from Schwarzenberg, where it occurred as a crust on calcite associated with orthoclase and fluorite. As no other localities have yet been reported,[3] two American occurrences are worthy of note.

The mineral was collected by Mr. Frederick Oldach of the Reading High School, at a trap quarry one-half mile west of Robeson, or Gickerville, on the Schuylkill River, 7 miles south of Reading, Berks County. It occurs as small colorless or yellow prismatic crystals, a combination of the three pinacoids $a(100)$, $b(010)$, and $c(001)$; $a(100)$ is characteristically pearly, and sometimes slightly iridescent. The epidesmine is intimately associated with natrolite; other minerals noted in the quarry are stilbite (very abundant), prehnite, laumontite, chabazite, apophyllite, calcite, chrysocolla and epidote.

Col. Washington A. Roebling had previously identified the mineral at Moore Station, Mercer County, N. J. Optical examination of a specimen kindly presented by him to the writer showed it to be identical with the mineral from Schwarzenberg and Robeson.

The epidesmine from the three localities showed the following optical characters: optically $-$; $\alpha = 1.485, \beta = 1.495, \gamma = 1.500$, all $\pm .005$; $\gamma - \alpha = 0.015$. Axial plane parallel to $a(100)$; $a = Y, b = Z, c = X$; $Bx_a \perp$ to c (001); 2E approximately 40°.

[1] Wood, R. W. Selective absorption of light on the moon's surface and lunar petrography. *Astrophys. J.*, **36**, 75–84, 1912.

[2] V. Rosicky and St. J. Thugutt: Epidesmin, ein neuer Zeolith, *Centr. Min. Geol.*, **1913**, 422–426; Ford: Third Appendix to Dana's System of Mineralogy, 27, 1915.

[3] The "stilbite" figured by Heddle (Mineralogy of Scotland, II, plate LXXX, fig. 2, 1901), and by Böggild (Mineralogia Groenlandica, 562, fig. 108, 1905) is most probably epidesmine.

The John R. Stanton collection of mineral specimens has been sold to Mr. M. L. Morgenthau of New York City. The sale was made by G. S. Scott of New York who represented Mr. Stanton. The collection comprises 4500 specimens. For upwards of 30 years the collection was in the making, it having been originated by Mr. Stanton's brother and after his death Mr. John R. Stanton bought many very choice specimens and enlarged the collection considerably. Mr. Stanton's connection with the copper mines of Michigan secured for him what is probably the finest collection of native coppers in calcite known. Some of these calcites, clear as crystal and with native copper imbedded, make astonishingly beautiful specimens. Likewise Mr. Stanton's assortment of datolites from Michigan is unsurpassed, there being 100 or more beautiful polished specimens. His crystallized native silver and copper specimens from Lake Superior were many and choice In crystallized copper Mr. Stanton had several splendid specimens, the finest being one weighing 35 kg. and showing hundreds of perfect crystals. There were many most attractive specimens in the collection representing various minerals from every prominent locality. Mr. Morgenthau is to be complimented in having secured this splendid mineral collection. The collection for years had been on exhibition at Mr. Stanton's office, 15 William St., New York City.

The Extension Division of the University of California is offering a correspondence course in determinative mineralogy, given by Professor Arthur S. Eakle. While intended primarily for residents of California, it is available for everyone, no matter where they live, and is open for enrollment at any time. Believing that this course might be of interest to many of our readers, we have obtained further details about it, which will be found on page i of this issue. For additional information address Professor Allyn G. Smith, Chairman, Technical Department, University of California, Berkeley, Cal.

Villamaninite

W. R. Schoeller and A. R. Powell: Villamaninite, a new mineral. *Min. Mag.*, **19**, [88], 14–18, 1920.

NAME: After the village Villamanin, Cármenes district, Prov. Leon, Spain.

PHYSICAL PROPERTIES: Crystallization is cubic, with the octahedron and cubo-octahedron as the recognizable forms. H. = $4\frac{1}{2}$. Color, iron black with a dull metallic luster. Streak, sooty black. No cleavage and uneven fracture. Sp. gr., 4.4–4.5.

CHEMICAL PROPERTIES: In closed tube gives sublimate of sulfur and selenium. Soluble in nitric acid with liberation of globule of sulfur. A sulfide of copper, nickel, cobalt, and iron, rich in selenium; probably a disulfide (Cu, Ni, Co, Fe) $(S, Se)_2$. Four analyses gave approx.: Cu 19, Ni 18, Co 7, Fe 4, S 50, Se $1\frac{1}{2}$ per cent. Traces were also found of arsenic, bismuth, lead and zinc, while negative tests are reported for tellurium, thallium, indium and gallium.

OCCURRENCE: Evenly disseminated thru a matrix of white crystalline dolomite, associated with chalcopyrite, iron pyrite and quartz. Occurs in groups of rough crystals and as small nodular masses with a radially fibrous structure.

W. F. HUNT.

[This material appears to be either a mixture, or a cupriferous polydymite. It is too poorly characterized to rank as a distinct and definite species.

W. F. F.]