

To supplement the description of ptilolite given in Dana's System, page 572, the optical properties and specific gravity, determined on this specimen by Messrs. Larsen and Wherry, are here recorded:

Specific gravity, determined by suspension of minute, quartz-free fibers in a heavy solution, 2.30 ± 0.01 .

Under the microscope seen to consist of well-defined, transparent needles; refractive indices: $\alpha = 1.475$, $\beta = 1.477$, $\gamma = 1.478$, all ± 0.003 . Biaxial with large axial angle, and optically negative; extinction parallel and elongation negative.

It was found to be impossible to free the sample from quartz by the use of heavy solutions, so only a partial analysis was made; the results are presented in table 1.

TABLE 1

	1	2	3
SiO ₂	81.5	72.3	70.4
Al ₂ O ₃	8.2	12.3	11.9
CaO.....	1.7	2.6	3.9
MgO.....	0.3	0.4	—
K ₂ O.....	} 1.0	1.5	{ 2.8
Na ₂ O.....			
H ₂ O.....	7.3	10.9	10.2
Totals.....	100.0	100.0	100.0

1. Analysis by L. H. K.; alkalis obtained by difference.
2. Same after deducting $33\frac{1}{3}\%$ of quartz and recalculating to 100%.
3. Analysis of ptilolite, from Dana, for comparison.

These results indicate the material to be undoubtedly ptilolite.

DIASPORITE IN MISSOURI. EDGAR T. WHERRY. Washington, D. C.

During the past year about twenty-five samples of minerals have been received for identification by the editors of this magazine. Among the rarer minerals represented there may be mentioned fuchsite, uraninite, margarite, vesuvianite, and diaspore or diasporite; the latter form of this name is preferred by the writer for the sake of uniformity. Diasporite is usually represented in collections by crystalline coatings associated with corundum; but the material submitted consists of gray sandy grains imbedded in white clay. Its identity was established, first, by optical examination, it proving to be biaxial, with two refractive indices = 1.70 and 1.75; and this was confirmed by chemical tests: it is insoluble in acids but after fusion with sodium carbonate dissolves and yields reactions for aluminium with only traces of other elements.

The locality for this unusual occurrence is stated to be Rosebud, Missouri, about 85 miles west of St. Louis. It is reported to form lenses in clay, known locally as "sand-rock" or "ashy clay," of many hundreds of tons in weight; it must therefore be the largest deposit of diasporite thus far discovered. The clay is presumably residual, left behind upon the weathering away of limestone strata, and the diasporite has probably been developed by the action of hydrothermal waters on the clay. The region should certainly be investigated by a mineralogist to ascertain whether showy crystalline specimens occur there also.