

ART. XXXV.—*On a fibrous variety of Sepiolite from Utah*; by
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SOME years since I obtained, while visiting a silver mine in Utah, specimens of a fibrous mineral which upon analysis proves to have the composition of sepiolite. It occurs in a seam about two inches in thickness cutting across the rock strata and vein at nearly right angles. The following analyses give the composition of two varieties, one of which is white, and the other bluish-green; 1 is the mean of four analyses of

the white variety; 3 is a single analysis of the green kind; and 2 and 4 are the respective oxygen ratios for the two.

	1	2	3	4
Silica	52.97	6.16	50.15	6.08
Alumina	0.86		2.06	
Iron sesquioxide	0.70		1.02	
Manganese sesquioxide ...	3.14		2.09	
Copper oxide	0.87	2.	6.82	2.
Magnesia	22.50		18.29	
Water	9.90	1.92	9.30	1.88
Moisture	8.80		10.32	

One half the water is driven off at a temperature of 100° C., and very little more is lost even up to 200° C., and a full red heat is required to expel the last traces. It is hence probable that the moisture which goes off below 110° does not belong to the mineral and should not be regarded in deducing the formula. The formula obtained is $2\text{MgO}, 3\text{SiO}_2 + 2\text{H}_2\text{O}$, which is identical with that of sepiolite, of which it is a new and interesting variety. Its blowpipe characters, and its behavior with acids are the same as those of sepiolite. It gelatinizes with hydrochloric acid though not entirely decomposed. The green variety, as shown in the analysis above, contains considerable copper, which is obviously the cause of the color, and which seems to replace the magnesia in the composition of the mineral.

Hamilton College, Feb. 14.