## Miscellaneous.

these deductions, and at the same time taking away the amount of water necessary to render the  $MgOSO_3 = MgOSO_3 + 7$  aq.: (the hydrated sulphate of soda would of course become anhydrous on exposure to dry air); the results then become;

	15·55	Oxygen. = 4.44	Ratio. 3·08	Calculation.		
Lime,				3CaO	84	15.64
Soda,	5.61	= 1.44	1.90	NaO	31	5.77
Water,	19.72	=17.52	12.16	12HO	108	20.11
Boracic acid,	59.10	=40.77	28.10	9BO 3	314.1	58.48
99.98					537-1	100.00

corresponding to the formula,

NaO, 3CaO, B9O3+12110."

The late Prof. Robb remarks as follows on its crystalline form :---

"In spite of your odd formula, the mineral, just as I got it, untouched and unwashed, is perfectly crystalline in every particle. A good power is required, but with a magnifying power of about 350 diameters there is no difficulty, the form comes out as sharp as possible. The crystals are excessively thin translucent tables or plates. They have a rhombic outline and the angles probably = 80° or more, owing to their excessive thinness I could not say whether they could be called right or oblique rhombic prisms. I suspect the latter from analogy. By care the 'Tiza' (Natro-borocalcite) can be shown to consist of very fine prisms, sharp, angular and long, but too fine for me to state their form. The diameter was less than .00118 of an English inch. The long prismatic needles of the Tiza are in great contrast to the broad tables of the recent mineral in your last letter; of that the plates are about 0048 of an inch from side to side, but some are a little larger, others a little smaller. In some you see regular cleavage, that is, a small rhomb chipped out of one side. As far as form goes therefore it would seem to be a distinct and definite species. I presume it was formed in a dry place for the angles were quite sharp. The connection between these borates and sulphate of lime and sulphate of soda is very curious."

Prof. How thus notices its bearing on the question of the mode of formation of gypsum :---

"The truth of the last sentence in Prof. Robb's letter is very apparent. In my former paper on the subject I adverted to the existence of Natro-boro-calcite in the Gypsum here as confirming