We see that in both our specimens m=p as in Abich's pumices; but while our "quasi" is just a little too basic for the A-set, our purified pumice is far too acid for set B even. The excess of base in our quasi-pumice might be explained by the presence in it of Anorthite, which according to Tschermak always accompanies albite as a normal admixture. Going by Abich's determinations our quasi-pumice would appear to stand closer to what he calls pumice than our undoubtedly genuine pumice does.

$$^{1}$$
 CaO  $_{\text{Al}_{2}\text{O}}$   $^{2}$  SiO<sub>2</sub>; *i.e.*, 4(RO or R3O) for 2SiO<sub>2</sub>.

## 84. GLAUCONITE.—Station 164B.

Lat. 34° 13′ S., long. 151° 38′ E., 410 fathoms (Sipöcz).

I. 0.4544 grm. of substance, fused with the carbonates of soda and potash, gave 0.0311 grm. of water, 0.2573 grm. of silica, 0.0770 grm. of peroxide of iron, 0.0570 grm. of alumina, trace of manganese, 0.0077 grm. of lime, and 0.0315 grm. of pyrophosphate of magnesia = 0.01135 grm. of magnesia.

II. 0.3519 grm. of substance, treated with hydrofluoric and sulphuric acids, gave 0.0199 grm. of the chlorides of potash and soda, 0.0456 grm. of chloroplatinate of potash, corresponding to 0.0139 grm. of chloride of potash = 0.00889 grm. of potash, and 0.0060 grm. of chloride of soda = 0.00318 grm. of soda.

III. 0.1483 grm. of substance, treated with hydrofluoric and sulphuric acids, required for oxidation 0.3 c.c. permanganate of potash (1 c.c. permanganate of potash = 0.0058355 grm. of protoxide of iron), corresponding to 0.0175 grm. of protoxide of iron.

Silica,							24		56.62
Peroxide of i	ron,								15.63
Alumina,		•						- 6	12.54
Protoxide of	iron,					10			1.18
Lime, .				•	•		•		1.69
Magnesia,			•				•		2.49
Potash,				43					2.52
Soda, .									0.90
Water,									6.84
Manganese,		•							trace
									100.41

Note.—This substance contained about 65 per cent. of white, pale grey, and some yellow casts, 20 per cent. pale green casts, and 11 per cent. of dark green casts, together with 14 per cent. of mineral particles and siliceous organisms (J. M.).

## 85. GLAUCONITE.—Station 164B.

Lat. 34° 13' S., long. 151° 38' E., 410 fathoms (Sipöcz).

- I. 0.6340 grm. of substance, fused with the carbonates of soda and potash, gave 0.0352 grm. of water, 0.3299 grm. of silica, 0.1664 grm. of peroxide of iron, 0.0566 grm. of alumina, trace of manganese, 0.0080 grm. of lime, and 0.055 grm. of pyrophosphate of magnesia = 0.019856 grm. of magnesia.
- II. 0.5320 grm. of substance, treated with hydrofluoric and sulphuric acids, gave 0.0380 grm. of the chlorides of potash and sods, 0.1164 grm. of chloroplatinate of potash, corresponding to 0.0355 grm. of chloride of potash = 0.02243 grm. of potash, and 0.0025 grm. of chloride of sods = 0.00133 grm. of sods.
- III. 0.2633 grm. of substance, treated with hydrofluoric and sulphuric acids, required for oxidation 0.75 c.c. permanganate of potash (1 c.c. permanganate of potash = 0.0058355 grm. of protoxide of iron), corresponding to 0.004376 grm. of protoxide of iron.