hypersthene rock (common felspar and hypersthene in equal parts) in column 2.; and diallage rock (two thirds of common felspar and one third of diallage) in column 3.

Serpentine, usually considered to be little else than diallage or schiller spar, seems to be well represented in general, by supposing it a hydrated subsilicate of magnesia; and contains besides chrome and other metals alumina, &c. (in all 5 per cent.): —

Silica	about	42
Magnesia	—	38
Water	—	15

A subsilicate of magnesia would contain very nearly the same proportions of the earths.

Among the rocks known to be of volcanic origin, porphyry, which graduates to claystone, and trachyte, — trachyte, which in a vitreous state becomes one kind of obsidian,—and pumice, which is a spumous or filamentous form of obsidian, —appear to compose one long series of felspathic compounds, remarkably analogous to granite, both by mineral variations (where these can be clearly seen) and by chemical composition. The analysis of obsidian from Hecla, by Vauquelin, yielded the results in column 1.; while in column 2. is the composition of a siliceous granite, which we have calculated from the proportions of quartz 3 parts, common felspar, albite, and mica, each 1 part. In column 3. is the analysis of

	1.	2.	3.	4.
Silica - -	78	80·1	80·2	80·9
Alumina -	10	10·0	12·7	10·2
Potash - -	6	4·0	-	1·7
Lime - -	1	0·7	1·1	0·2
Magnesia - -	-	-	-	0·8
Soda - -	1·6	1·7	1·9	3·3
Oxide of iron and manganese	1·0	1·5	1·1	1·5
Fluoric acid & water	-	0·5	-	0·5