

underlying assumption is with falling temperature that minor coatings of opal have this origin but not lavas. WALKER (1951) on plateau of Ireland and rhyolite flows, in all about 100 ft. has been shown for the

these may be related to flow or intrusion, to temperature resulting from solutions, or to the fact that the clinopyroxene-sclerite in olivine basalt, following hydration with water, followed by a reverse reaction noted by the thermal

trend. Nevertheless, consider that this fact is thermal and regionally extensively less hydrous

content of zeolites and above, together with the zeolites in veins and laumontite and analcime. Relatively insignificant, GILLI *et al.* (1940) in the Aar granite. stilbite, accompanied by laumontite (EENBERG (1953) from the zeolites, except for one. Observations at active thermal areas occur in tholeiitic

on olivine basalts are reported (WALKER, 1951), these have been reported as of phase equilibria, they coexist with each other. However, that the grouping occur in immediate coexisting with opal,

The zeolite facies, with comments on the interpretation of hydrothermal syntheses

cristobalite or silica-rich glass, B saturated, C undersaturated with respect to quartz. Many exceptions which could be inferred from published paragenetic sequences seem to be more apparent than real, although exceptions undoubtedly do exist. In particular chabazite, which is chemically equivalent to

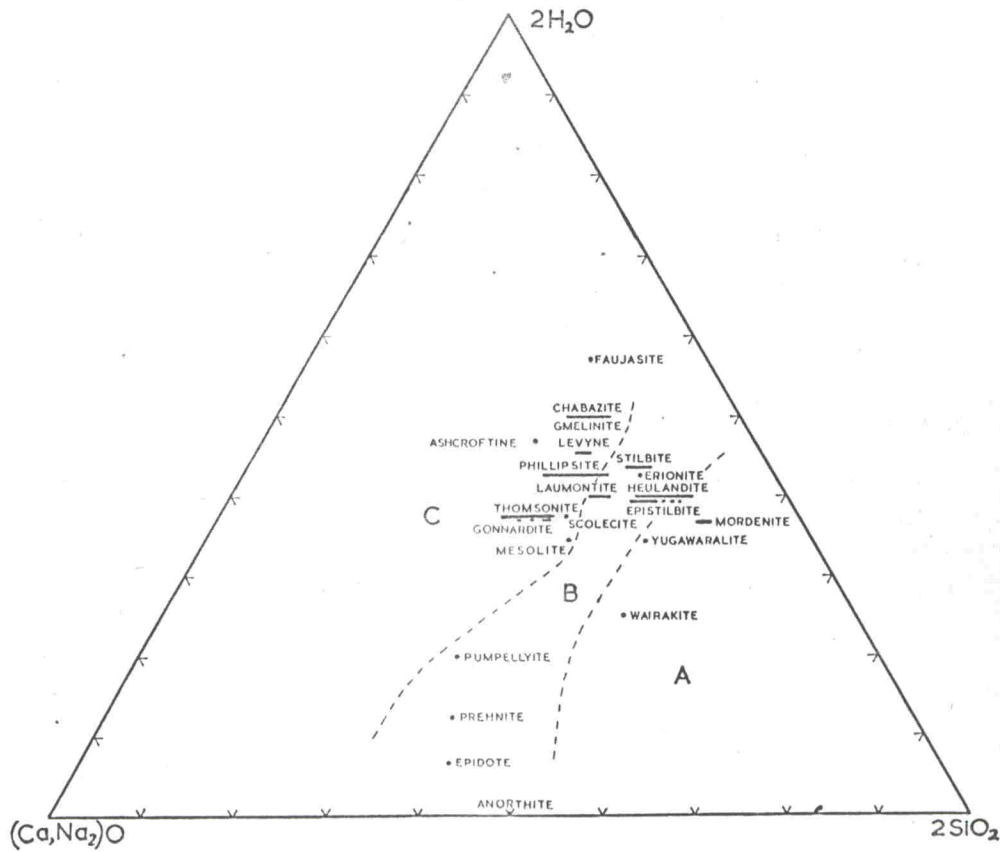


Fig. 5. Composition in molar proportions of lime-rich zeolites (see Appendix 2) and of certain other Ca-Al silicates. For the zeolites and anorthite, (Ca, Na₂)O is numerically equal to Al₂O₃. A. Field of phases favoured by supersaturation in silica. B. Field of phases which can commonly coexist with quartz (erionite coexists with opal). C. Field of phases favoured by a silica-deficient environment.

stilbite with less silica and to laumontite with additional water, falls in the field of the less siliceous zeolites yet has often been reported in association with quartz (e.g. in the Nova Scotia traps, WALKER and PARSONS (1922) p. 42), although not necessarily in equilibrium with it. Similarly it has been synthesized with quartz (see Table 14).

3.6. Groundmass zeolites in igneous rocks, pegmatoids and glasses

It is well known that analcime and other zeolites are common in the groundmass and pegmatoids of basic, alkaline lavas and shallow intrusives. Apart from the fact that they are characteristically silica-poor zeolites, they provide little direct