

ZEOLITES OF MUNELLA (ALBANIA) – A STILBITE-STELLERITE SOLID SOLUTION

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Zeolites of Munella are found between the SSZ-type volcanic rocks of the Mirdita zone (Jurassic Albanian ophiolitic complex). From the bottom to the top, the volcanic section consists of basalts, basaltic andesites, dacites and rhyolites. Zeolites crop out as separated up to 2-3 m thick layers, intercalated with rhyolites, dacites and andesites of the uppermost part of the volcanic sequence (SHALLO, 1994; BECCALUVA *et al.*, 1994).

Critical evaluation of other reported chemical analyses of stilbite phase from metabasalts indicates that most compositions lie along a binary solid solution between stilbite ($\text{Ca}_2\text{NaAl}_5\text{Si}_{13}\text{O}_{36} \cdot 16\text{H}_2\text{O}$) and stellerite ($\text{Ca}_2\text{Al}_4\text{Si}_{14}\text{O}_{36} \cdot 14\text{H}_2\text{O}$) (Fig.1) (FRIDRIKSSON *et al.*, 2001).

Microprobe data indicate that Munella zeolites fit the above stilbite–stellerite solid solution series (SS), showing a

Ca-rich trend because of the domination of the stellerite end member (BEQIRAJ, 2004).

References

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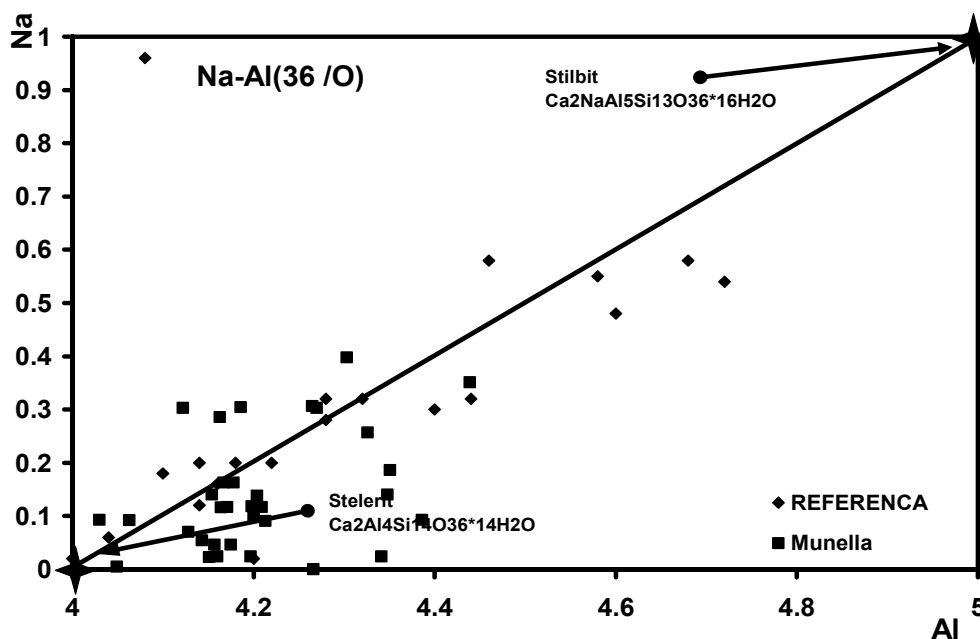


Fig. 1: Composition of natural stilbite SS minerals in metabasalts (solid squares represent the Munella zeolites).