

CLINOPYROXENE COMPOSITION: A POSSIBLE DISCRIMINATION BETWEEN MAGMATIC ROCKS WITH MOR AND SSZ AFFINITIES

BEQIRAJ, A.¹ & MASI, U.²

¹ Faculty of Geology and Mining, Rruga Elbasani, Tirana, Albania

E-mail: ae_beqiraj@yahoo.com

² Department of Earth Sciences, P.le Aldo Moro 5, I-00185 Rome, Italy

16 clinopyroxenes from magmatic rocks of the Bulqiza ophiolitic complex (Albania) have been analysed for major and minor elements (electron microprobe) and for the trace and subtrace elements (ionic microprobe). The magmatic rocks belong to two different cumulitic series: a) plagioclase series and b) clinopyroxene series with Ol + Sp – Pl – Cpx – Opx – Amf – Mt and Ol + Sp – Cpx – Opx – Pl crystallization order, respectively (TASHKO & MARTO, 1990). All the clinopyroxene analyses fall within the tholeiitic trend (LEBAS, 1962). In addition, in the framework of the general tholeiitic trend, two separated clinopyroxene composition sub trends can be seen. The smoother trend belongs to clinopyroxenes from the rocks of the plagioclase series (dunite–plagioclase dunite–troctolite–olivine gabbro–gabbro norite)

which shows a MOR-type magmatic affinity. On the contrary, the cumulates from the clinopyroxene series yield clinopyroxene data arrays characterized by a trend slope greater than the first, which is characteristic for the subduction generated magmas (LOUKS, 1990).

References

LEBAS, M. J. (1962): American Journal of Science, 260: 267–288.
LOUKS, R. R. (1990): Geology, 18: 346–349.
TASHKO, A & MARTO, A. (1990): Transition between ultrabasic tectonites and cumulates in the Bulqiza massif (in Albanian), Buletini i shkencave gjeologjike, (2): 67–81.

