

XIX Congress of the Carpathian Balkan Geological Association Thessaloniki, Greece, 23-26 September 2010

Session

S15

www.cbga2010.org info@cbga2010.org

S15 Tertiary potassic and ultrapotassic magmatism along the Carpathian-Balkan-Dinaride chain: petrological processes and geodynamics

Conveners: <u>Giampero Poli</u> (IT), <u>Vladica Cvetković</u> (RS) & <u>Antonis Koroneos</u> (GR) This session accepts both full papers and abstracts

Recent petrological, geochemical, and geological data have revealed that potassic and/or ultrapotassic magmatism has very interesting features:

- (i) it is often associated with magmas having typical calc-alkaline affinity;
- (ii) it is commonly linked to large horizontal movements along major shear zones;
- (iii) both mantellic and crustal sources have an important role leading to extensive processes of magma mixing.

However, the exact definition of geodynamical environment associated with potassic and ultrapotassic magmatism is still matter of debate, and the most different environments, from subduction to mantle-plume, have been proposed (e.g. ¹).

Tertiary potassic and ultrapotassic magmatic rocks, both volcanic and plutonic, are common along the Carpathian-Balkan-Dinaride chain. This area offers us a prime opportunity to understand the link between magmatism and geodynamic owing to the variability of tectonic environments. The questions to be discussed in this session include, but are not limited to:

- (1) petrologic and geochemical characteristics of magmatic rocks in such zones and their origin and evolution,
- (2) crustal and mantle processes that may be responsible for magmatism,
- (3) geodynamic style controlling magmatism, and
- (4) models of continental growth that can be applied to the Carpathian-Balkan-Dinaride chain.

We welcome field petrologists, geochemists, structural and regional geologists, and geophysicists of all areas to share their new observations and new thoughts with a common goal of enhancing our understanding of magmatism and geodynamics in the Carpathian-Balkan-Dinaride area.

¹ "Cenozoic Volcanism in the Mediterranean Area" Beccaluva, L., Bianchini, G., and Wilson, M., eds., Geological Society of America Special Paper 418, doi: 10.1130/2007.2418.