S17 Phanerozoic geodynamic evolution of the Balkan Peninsula: constraints from petrological and geochronological studies

Conveners: Albrecht von Quadt (CH), Franz Neubauer (AT) & Peter Marchev (BG)
This session accepts both full papers and abstracts

Time scales relevant to magmatic and metamorphic systems are likely to vary from as short as decades to millions of years, and even shorter periods are involved with volcanic degassing and eruption. Precise geochronology has substantially developed in the last years, delivering more precise and accurate age data. Subduction recycles crustal components through convergent plate magmatism and back into the deep mantle. This session focuses on the quantification of chemical and isotopic compositions of subduction zone inputs, the progressive metamorphic processing of slab materials, the characteristics of fluids/melts released from the slab, their interaction with the mantle wedge, and inputs to the deep mantle. Conditions and processes that lead to the rock formation may be recorded in multiple ways and on different scales. Mineral compositions and phase assemblages were usually interpreted based on equilibrium thermodynamics to obtain estimates for the conditions during rock or magma evolution. Process information was largely derived by empirical comparison of observed reaction microstructures and textures.

This platform shall foster an integrated discussion on magmatic and metamorphic processes in subducted slabs and document their chemical/isotopic relevance on the mantle dynamics of the Balkan Peninsula's. Contributions based on field observations, tectonic interpretations, experimental investigations, theoretical as well as numerical studies are welcome.