

## **Geochronology and Isotope Geochemistry of Mantle-derived and Crustal Rocks**

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Numerous studies over the last decades demonstrate the importance of isotope geochemistry in almost all aspects of geological and environmental sciences. This session seeks contributions that focus on understanding and timing of geological processes through the analysis of radiogenic isotopes in mantle-derived and crustal rocks. As these processes usually occur in the deep earth and last for hundred years to tenth of million years they cannot be studied by normal observation. Applications range from analysis of whole rock powders to that of single growth domains of accessory minerals. Particularly the latter is becoming increasingly more important in studies on igneous, sedimentary and metamorphic rocks. New analytical developments and their growing availability, makes in situ isotopic and trace element analyses in the micrometer scale to key tools of petrogenetic, geochronological and provenance studies. Topics will include but are not limited to (i) the origin and petrogenesis of mafic and felsic igneous rocks, (ii) the generation and evolution of continental crust, (iii) the integration of P-T data of metamorphic rocks with the isotope and geochronological record, (iv) accessory minerals as provenance indicators, (v) all types of geochronological studies, and (vi) new developments in analytical methods and their applications. We specifically invite multidisciplinary contributions that combine theoretical studies with field and analytical investigations.