

# Petrology and Petrography

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## RESEARCH TOPICS

- Tectono-magmatic processes and their temporal evolution in the formation of the oceanic crust
- Mantle melting and melt extraction in the suboceanic mantle
- Modeling compatible and incompatible trace element behaviour during mantle melting
- Melting systematics of the Mid Atlantic and Southwest Indian ridge
- Formation and accumulation of abiotic carbon in the oceanic lithosphere
- Temporal persistence of the organic matter accumulated in the lithosphere
- Fluid and melt percolation processes through mantle peridotite matrix
- The role of mantle heterogeneity in subcontinental peridotite massifs on the genesis of basic magma
- Mass transfer processes of fluids in hydrated and carbonated mantle rocks from suprasubductive settings
- Growth mechanism of mafic-ultramafic layered complex
- Studies of mafic dike swarms as key markers of their mantle source and the petrogenetic evolution and of the geodynamic environment in order to constrain the paleogeographic reconstruction
- Provenance studies in Bronze Age potteries of the Mediterranean basin
- Casting clays in the classic age