Special Issue

Mantle Circulation and Plate Movement

Message from the Guest Editor

Since the plate tectonic revolution, it has been widely understood that the processes of plate development on motion must be initiated, if not governed, by the underlying mantle dynamics of the planet. Competing mantle processes of buoyancy and viscous dissipation can propagate or inhibit plate tectonic processes. While standing on research advances in how the mantle works, details of how mantle circulation initiates or continues to drive plate motions are still poorly understood. The Special Issue is to explore and illuminate various aspects of mantle circulation on plate development from rifting or subduction initiation to the influence of convection on current plate motions. It aims to provide an outlet for rapid, widely accessible publication utilizing the tools of geophysics, structural geology, sedimentology, geochemistry and geodynamic modeling to elucidate how the underlying mantle interacts with plate tectonics as we understand it. It aims to cover, without being limited to, the areas: whole or layered mantle convection; plume processes; rifting/seafloor spreading development, subduction initiation; plate motions and their effect on dynamics of the underlying mantle.

Guest Editor

Dr. James Conder

Department of Geology, Southern Illinois University, Carbondale, IL 62901, USA

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Geosciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
geosciences@mdpi.com

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Understanding the Earth's origin and its bio-geological evolution, the multiple implications of the geosciences (as a coherentset of interconnected disciplines), and the sociocultural and ethical interdisciplinary approaches, will be crucial for a better understanding of Nature, and also for undertaking scientificallybased political decisions.
We are committed to drive *Geosciences* to a position in which it is recognized for its high-quality, cutting-edge research and scientific influence, and strongly encourage and invite your participation and manuscripts.

Editor-in-Chief

Prof. Dr. John C. Eichelberger
Alaska Center for Energy and Power, University of Alaska Fairbanks, Fairbanks, AK, USA

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