

Post-doctoral position [6 months] – Geosciences Rennes

Support for the elaboration of an ERC project

The hired candidate will have to help for the set up of a project that will be submitted to the ERC in February 2018 (Cf. enclosed abstract). Her/his duty will be double:

(1) She/He will mainly have to ensure and monitor the continuous progression and completion of each step in the project documentation. The candidate will also have to verify and complete the existing state of the art by doing extensive bibliographic reference research.

(2) The candidate will also implement the available database relative to pressure estimates (Yamato and Brun, 2017) and extend it to temperature and age data. This represents a key point for the project.

This dual responsibility "project management/research" requires skills in database management as much as scientific capabilities in disciplines such as tectonics, metamorphic petrology and geochronology.

Project abstract:

High Pressure metamorphic rocks outcropping at the surface of the Earth are the only direct available witnesses of the physical conditions they experienced during their journey through subduction zones. Their study is crucial as they are the direct results of the processes and conditions acting for millions of years at depths (several tenth of kilometres).

Theoretically it is possible to trace back these conditions (Pressure-Temperature-time-deformation or $P-T-t-\epsilon$) using tools of petrology, geochronology and by studying rock deformation within these particular rocks and then to reconstitute their history in both time and space. But practically, $P-T-t-\epsilon$ conditions are not necessarily preserved within a same rock. What is more, the links between P-T estimations, time and associated deformation is not always straightforward. Lastly, the interpretation of a same set of data can be highly equivocal as the conclusions drawn from them, and presently leads to vigorous debates in the scientific community.

For more information:

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