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4, C454-C455, 2012

Interactive Comment

Interactive comment on "Up the down escalator: the exhumation of (ultra)-high pressure terranes during on-going subduction" by C. J. Warren

S. Buiter (Editor)

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Received and published: 19 September 2012

Dear Clare,

I would like to thank you for undertaking the challenging work of providing a review of mechanisms by which (ultra-)high pressure rocks can be exhumed and I want to encourage you to submit a revised version of the manuscript. As you will have seen in the Interactive Comments, your manuscript has stimulated a wide range of suggestions for the revision. I have read your replies and agree with the revisions you are proposing.

The tectonic overpressure issue referred to by two reviewers points to the discussion on whether the rocks have really been as deep as the use of a lithostatic pressure gradient would imply. Vrijmoed et al. (2009) suggest that the rocks could have experienced an

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overpressure by as much as 1-2 GPa, which would then imply that they would not need to have been as deep as previously believed (ca 30-60 km less).

Thank you for submitting your work to our Subduction Zones special issue!

Susanne

Vrijmoed, J.C., Podladchikov, Y.Y, Andersen, T.B., Hartz, E.H., 2009. An alternative model for ultra-high pressure in the Svartberget Fe-Ti garnet-peridotite, Western Gneiss Region, Norway. Eur. J. Mineral. 21, 1119-1133

Interactive comment on Solid Earth Discuss., 4, 745, 2012.

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