

Missing western half of the Pacific Plate: Geochemical nature of the Izanagi–Pacific Ridge interaction with a stationary boundary between the Indian and Pacific mantles

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Additional Supporting Information (Files uploaded separately)

Supporting information Figure S1
Caption for Dataset S1

Introduction

[This supporting information includes Figure S1:

- Formed by the data compilation by *Class and Kerstin* [2012].
- Showing a new Indian-Pacific mantle boundary in ϵNd - ϵHf isotope systematics.

[This supporting information includes Dataset S1 as a separate Excel file:

- Served with Excel spreadsheet including all the newly analyzed data.
- The analytical procedures are all listed in the main text.
- Note: Color coded in blue is from literature, black shows analytical result in this study.

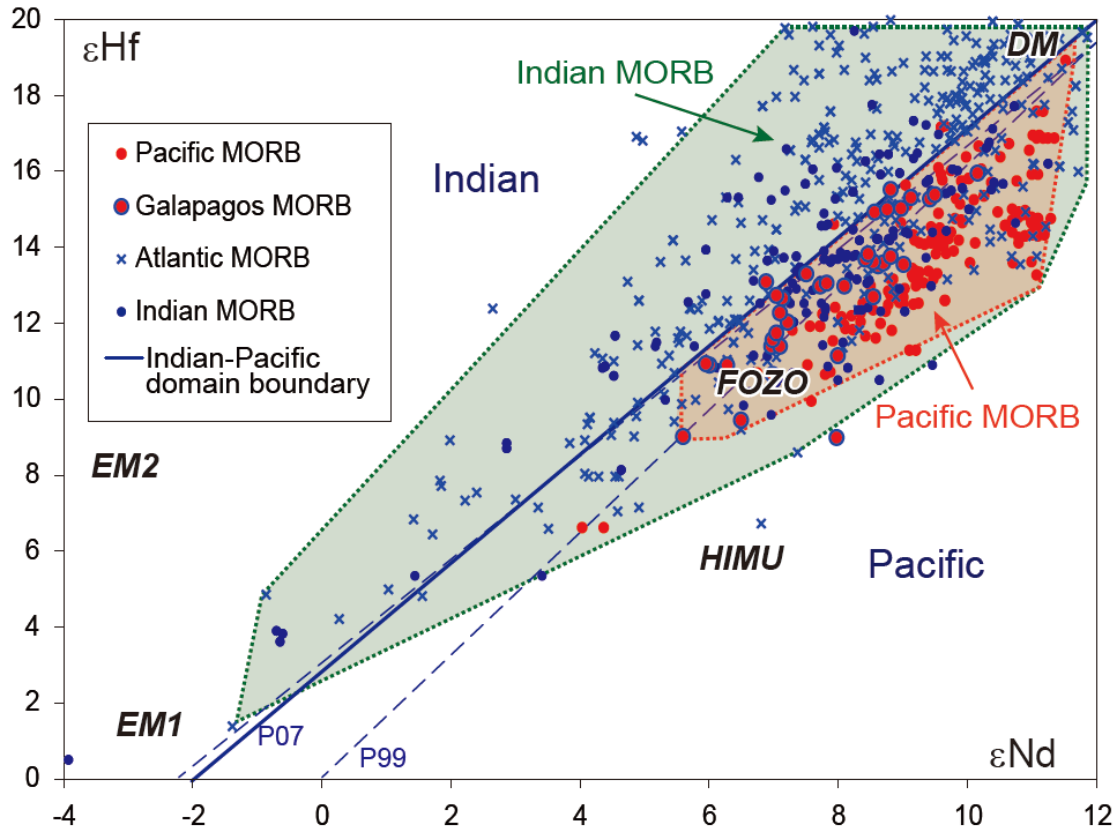


Figure S1. Indian and Pacific mantle domain boundary in ϵNd - ϵHf isotope systematics. Data from *Class and Kerstin* [2012]. P99 and P07 are from *Pearce et al.* [1999 and 2007]. DM, FOZO, HIMU, EM1, and EM2 are from *Stracke et al.* [2005]. The plume-influenced MORBs in the Galapagos Ridge all plot in the Pacific mantle field, although they plot closer to the Indian-Pacific boundary line, but do not violate mantle discrimination. This suggests negligible effects on their small volume mantle source by the small degree of mantle melting for E-MORBs only, but with dilution by a larger degree of melting for depleted-(D-) and N-MORBs [Kimura and Kawabata, 2015; Niu et al., 2002].

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Data Set S1. Analytical results of ocean floor basalts and ocean island basalts in the western Pacific.