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Corrigendum to "Contribution of carbonatite and recycled oceanic crust to petit-spot lavas on the western Pacific Plate" published in Solid Earth, 15, 167–196, 2024

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In the paper "Contribution of carbonatite and recycled oceanic crust to petit-spot lavas on the western Pacific Plate" by Mikuni et al. (2024), an error occurred in the abstract, in the second paragraph of Sect. 6.3, and in the Conclusion in terms of the mass-balance-based melting model description. The mistake was inserted during the writing of the paper before it was submitted for publication. The description of "… 10 % carbonatite flux (influx) to a given mass of the source …" is thus corrected to "… 10 % carbonatite flux (influx) relative to the mass of the partial melt produced after the system has opened to fluxing …".

Accordingly, the following errors in Figs. 11 and S9 have now been corrected as follows: the description of "10 mass%/source" is corrected to "10 mass%/partial melt", "100 mass%/source" is corrected to "100 mass%/partial melt", and "3 mass%/source" is corrected to "3 mass%/partial melt" in the inset in each panel.

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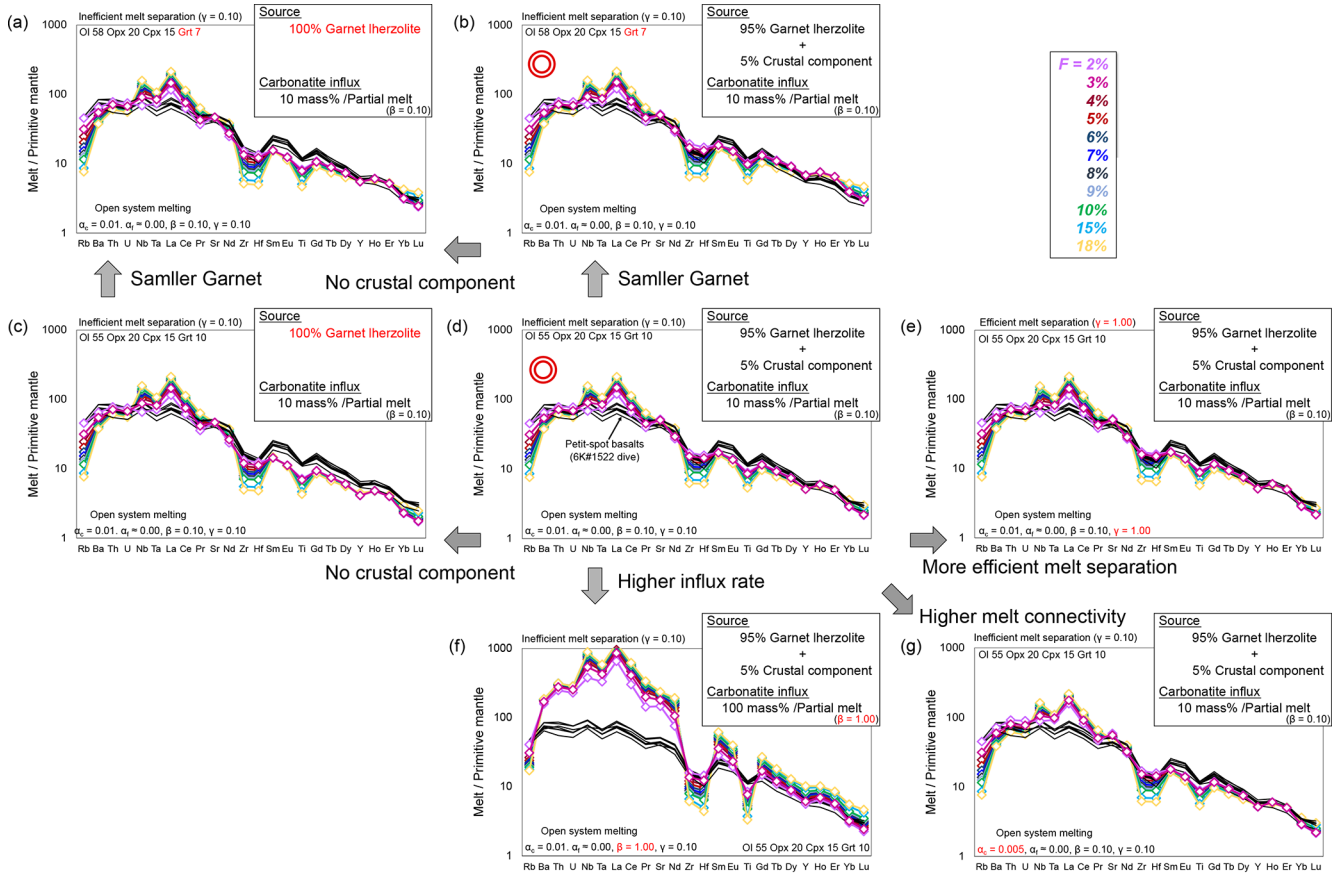

Figure 11. Geochemical modeling for the PM-normalized trace element pattern. The calculated hypothetical melts are a production of carbonatite influx melting of garnet lherzolite with or without 5 % crustal component. Detailed information of the parameters is described in Sect. 6.3 and Table S6. F is the degree of melting (%). The trace element composition of the western Pacific petit-spot basalts from the 6K#1522 dive is shown as black lines for comparison. The PM composition of lherzolite and the N-MORB composition of the recycled crust were based on a study by Sun and McDonough (1989). The influx carbonatite is the average carbonatite from a study by Bizimis et al. (2003). The parameters used in the open-system melting models were as follows: a_c is a critical melt fraction, a_f is a final trapped melt fraction, β is a melt influx rate, and γ is a melt separation rate. Model results are compared by varying each parameter, i.e., garnet modal ratio and presence of crustal material **(a–d)**, melt separation rate **(d, e)**, carbonatite influx rate **(d, f)**, and critical melt fraction **(d, g)**. Each figure is expressed based on the difference from the condition in panel **(d)**.