

Interactive comment on “The preserved plume of the Caribbean Large Igneous Plateau revealed by 3D data-integrative models” by Ángela María Gómez-García et al.

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We would like to thank Richard Ernst for his time and effort in reviewing our contribution. We would like to reply shortly to the main comment regarding the two plumes hypothesis presented by Kerr and Tarney (2005).

It is important to consider that the two plumes are associated with two distinct LIP events. Our work concentrates on the lithosphere of the present-day Caribbean Plate, whereas the second plume hypothesis concerns terranes accreted along the north-western margin of the South American continent (Ecuador and Colombia). This hypothesis has been recently revised by Hochmuth and Gohl (2017) [Hochmuth, K. and

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Gohl, K.: Collision of Manihiki Plateau fragments to accretional margins of northern Andes and Antarctic Peninsula, *Tectonics*, 36(2), 229–240, doi:10.1002/2016TC004333, 2017]. Their plate reconstructions suggest that most of these terranes were part of the Manihiki Plateau that formed around 120 Ma and accreted along the NW margin of South America at about 60 Ma. Thus, the magmatic event associated to the second plume (and plateau) doesn't seem to be related to the formation of the present-day Caribbean Plate.

Nevertheless, we will have a look in more details and consider any further implication for our results in the revised version of our manuscript.

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