Solid Earth Discuss., https://doi.org/10.5194/se-2020-173-RC1, 2020 © Author(s) 2020. This work is distributed under the Creative Commons Attribution 4.0 License.



Interactive comment on "A tectonic carpet of Variscan flysch at the base of an unrooted accretion prism in NW Iberia: U-Pb zircon age constrains from sediments and volcanic olistoliths" by Emilio González Clavijo et al.

Manuel Francisco Pereira (Referee)

mpereira@uevora.pt

Received and published: 20 October 2020

The work of González Clavijo and co-authors on new field data and U-Pb zircon geochronology is relevant because it contributes to improving the interpretive models of the Variscan synorogenic sedimentation in NW Iberia. The new field data are convincing of the complex stratigraphy of these synorogenic deposits (Block-In-Matrix Formations- BIMFs) whose origin is associated with gravitational collapses instigated by tectonic instability during Gondwana-Laurussia accretion. The new geochronology data are of good quality and allow them to obtain magmatic ages of rocks that con-

C.

stitute olistoliths and also to analyze the detrital zircon age populations of siliciclastic rocks (turbidites) that constitute the BIMFs. The comparison of the new geochronological data with a compilation of the existing data available in the literature allowed them to discuss the provenance of the BIFMs. I consider that the research line developed in this paper is well designed and the results are very interesting. However, I believe that the presentation and discussion of the data can be greatly improved considering this first version that was submitted. I consider that the organization of the text should be revised and English writing too (see my notes in attachment pdf file).

In any case, I would like to see more explored the following topic: The provenance of Silurian-Mid-Ordovician zircon grains found in the GTMZ Lower Parautochthonous units. They derived directly from magmatic rocks of Gondwana? or from Laurussia? If they derive from Laurussia, what Paleozoic terrain will they originate from? Meguma, West Avalonia, Ganderia, East Avalonia?

Please also note the supplement to this comment: https://se.copernicus.org/preprints/se-2020-173/se-2020-173-RC1-supplement.pdf

Interactive comment on Solid Earth Discuss., https://doi.org/10.5194/se-2020-173, 2020.