

Interactive comment on “Comparative geochemical study on Furongian (Toledanian) and Ordovician (Sardic) felsic magmatic events in south-western Europe” by J. Javier Álvaro et al.

Laura Gaggero (Referee)

gaggero@dipteris.unige.it

Received and published: 21 May 2020

This manuscript addresses and brings clarity on the Early- Mid Ordovician felsic magmatism in different geological regions at the northern Gondwana margin and aims at comparing and conciliating the different petrogenetic models. The organization of the work is excellent, the literature review is very large and correct, and the overall goal of the manuscript is clear.

However, as I have more experience on Sardinia, among all zones, I observe that the comparison of chemical data was carried out on using the Mid and upper Ordovician data (Giacomini, Cruciani), while in the text it is clearly stated that also a Lower Or-

Printer-friendly version

Discussion paper



dovician magmatism is present in Sardinia. So, I suggest inserting in your comparison or quoting in the discussion also the bulk and isotopic data of Gaggero et al 2012 for the lower Ordovician felsic rocks, correctly cited in the text. The emphasis on the lower Ordovician magmatism from in Sardinia, that we ascribed to a magmatic starved incipient passive margin, can otherwise open to a link with the Toledanian phase in the Iberian Massif. In your model, Sardinia could represent a distal expression of the crustal melting after thermal doming.

I also bring to your attention the mid Ordovician andalusite thermal aureole around the Filau metagranites (Costamagna et al 2016, Lithos) that constrains the emplacement level of the felsic rocks.

Finally : monacite at line 300. Congratulation for your interesting work, and kindest regards.

Laura Gaggero

Interactive comment on Solid Earth Discuss., <https://doi.org/10.5194/se-2020-45>, 2020.

Printer-friendly version

Discussion paper

