

Interactive comment on “Chronostratigraphic framework and provenance of the Ossa-Morena Zone Carboniferous basins (SW Iberia)” by M. Francisco Pereira et al.

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The paper supplies relevant interpretations on the provenance of Carboniferous basin materials of SW Iberia by means of analysing ages of detrital zircons. This study is a relevant contribution to understanding orogenic processes linked to basin evolution in one of the most complex zones of the European Variscan belt, the Ossa-Morena zone in SW Iberia. The manuscript is well written and clearly exposed in the most important principles and methodology. It can be improve by making some minor changes in several parts of the text. For instance, the Introduction can be improved by reorganizing the text and set the focus rather on the regional problem than the methodology. Thus,

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Introduction must start on line 64, and the first paragraph (47-63) can move to item 3 (Methods). Lines 88-89 must go at the very beginning of the Introduction, as this a tribute volume. Because the paper is a regional contribution, the item “Geological setting” can be moved in part to the Introduction. A description of the sampled sedimentary units can be given in this second item after the introduction (like a material description). About the Discussion and interpretations. If there are implications of these new data on one of the most debated topics of SW Iberia, namely the polarity of subduction during closure of Rheic ocean, this must be discussed in this paper. Only few lines refer to this problem (446-461). For instance, if subduction was beneath the Laurussian margin, why the coeval arc magmatism is in the passive margin (Gondwana)? Subduction to north (beneath Ossa-Morena, the active Gondwana margin) is a more realistic interpretation according to structural and petrologic data.

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