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Interactive comment on "The role of the seagrass <i>Posidonia oceanica</i> in the cycling of trace elements" by C. Sanz-Lázaro et al.

Anonymous Referee #2

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This is a good paper and I read it with pleasure. I fully agree with Dr Tina Treude's revision and, in my opinion, the MS deserves publication.

At this step I have only a few objections:

I think the term 'epiphyta' is more appropriated than 'epibiota' to the study, because it is well accepted in the scientific community.

P 2625. Line 25. It should be pointed out here that if the aim of the paper is, for instance, to use Posidonia as a trace metal biomonitor in seawater, it is not necessary to analyze roots an epiphyta. In fact, epiphytes and roots are not good biomonitors of trace metal pollution in seawater. This paragraph should be rearranged. The good quality of this study dealing with the metal accumulation trends in all plant compart-

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ments, doesn't exclude the high quality of another researches (i.e. biomonitoring).

P2627. L 20. Little information is given about epiphytes sampling. Which was the quantity collected and weighed? Quantity of leaves? As known, the presence of epiphytes in Posidonia leaves is highly variable. This information could be consent the repetition of the experience by other researchers.

P2628. L. 15 and Table 1. The AA declare that the measured values 'were in agreement with certified values' (Table 1). I'm sorry, but from data reported in Table 1, excluding Cd, it seems not correct (i.e. 77, 76 % of recovery for Cu; and 128% for Li...etc.). Please clarify this point. Was the mineralization method checked for the other elements? I noticed that about 15 elements out of 20 were not checked (the majority, table 1). Then, I assume the AA also used spiked Posidonia (parts) samples for the lacking elements with the respective recoveries, in order to check the accuracy. Please clarify and add this information.

P. 2638. Again, this paragraph is not clear. Several studies cited by the AA (Lafabrie et al., 2007; Gosselin et al., 2006; Campanella et al., 2001; Conti et al., 2007, 2010; Tranchina et al., 2005, etc) stated that Posidonia (mainly leaves) is a good biomonitor for trace elements in seawater. The study of roots and epiphyta are not necessary in this kind of biomonitoring studies because they do not reflect the metal concentrations in seawater. This part should be rewritten taking into account this aspect.

Interactive comment on Biogeosciences Discuss., 9, 2623, 2012.