

Interactive comment on “Unveiling the Si cycle using isotopes in an iron fertilized zone of the Southern Ocean: from mixed layer supply to export” by Ivia Closset et al.

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Dear Editor and Reviewers,

Even though none of the reviewers has raised concerns on the accuracy of the data, we would like to add a section in the revised version of the supplementary material.

Indeed there have been some concerns regarding Si isotopic offsets among labs on North Atlantic data (see Brzezinski and Jones, 2015) as well as more recently on the GEOTRACES intercalibration (Grasse et al., to be submitted).

We will show in the revised version that we have compared the deep samples of our KEOPS-2 study using a Neptune+ MC-ICP-MS (Closset et al. 2015) and a chemical

purification adapted from Hughes et al. (2011): cationic exchange + anion doping with data from KEOPS-1 (Fripiat et al. 2011) using a Nu Instrument MC-ICP-MS (Cardinal et al. 2003) and chemical purification adapted from De La Rocha et al. (1996). On a $\delta^{30}\text{Si}$ vs. $1/\text{Si}$ plot the two dataset show an offset of only 0.08 ‰ which is not analytically significant. We propose to modify the Supplementary Material Figure S4 to better highlight this comparison.

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Interactive comment

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