

Interactive comment on “The Acceleration of Dissolved Cobalt’s Ecological Stoichiometry due to Biological Uptake, Remineralization, and Scavenging in the Atlantic Ocean” by Mak A. Saito et al.

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We thank the reviewers for their efforts which will certainly improve the manuscript. Point-by-point responses have been posted as comments to each review. In particular, we emphasize that we have conducted a two-tiered analysis of the datasets, first in large aggregate analysis of Co:P relationships with large groups of data (and high r^2 values). This was followed by many 5-point profile based analyses that was inspired by the observation that both above and below the depth region studied for the aggregate Co:P relationships, there appeared to be important features of Co:P with distinct

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stoichiometries. These dissolved relationships were supported by particulate Co and P data, as well as biochemical proteomic analyses to document an acceleration of Co stoichiometry resulting from ecological and biogeochemical changes in the upper euphotic zone. We also point out that many of the concerns of reviewer #2 regarding dust and scavenging are beyond the scope of this study, and have been addressed by us in greater detail in the accompanying manuscript bg-2016-512 (Noble et al., 2017 BG in press) and in a Marine Chemistry manuscript that is now under minor revision (Hawco et al., 2017).

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