



## Supplement of

## The effect of marine aggregate parameterisations on nutrients and oxygen minimum zones in a global biogeochemical model

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This file provides additional figures to the manuscript 'The effect of marine aggregate parameterisations on nutrients and oxygen minimum zones in a global biogeochemical model'. It contains the following figures:

Figure S1: Global maps of *b* for  $noAgg^{ECCO1.0}$  (a) (same as Fig. 1a) and simulation BUR (b) from Kriest and Oschlies (2013), where remineralisation does not depend on oxygen.

Figure S2: Global map of *b* for the four best model simulations with regard to the sum of  $J_{RMSE}$  and  $J_{OMZ}$  in ECCO1.0: (a) simulation #14; (b) simulation #17; (c) simulation #28; (d) simulation #29).

Figure S3: As Fig. 2, but for  $O_2 \le 30 \text{ mmol m}^{-3}$ .

Figure S4: Profiles of average nutrient and oxygen concentrations for the eastern tropical Pacific (upper panels) and globally (lower panels).

Figure S5: Simulated particle abundance (in # L<sup>-1</sup>) in the surface layer (upper), for the 23°W section (lower left) and 151°W section (lower right) as a depth-profile for a particle size range of 0.14 to 16.88 mm diameter, following Kiko et al. (2017).

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## **Supplement Figures**



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