

CORRECTION

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Correction to: Deep mantle melting, global water circulation and its implications for the stability of the ocean mass

Shun-ichiro Karato^{1*}, Bijaya Karki² and Jeffrey Park¹

Correction to: *Prog Earth Planet Sci* 7, 76 (2020)
<https://doi.org/10.1186/s40645-020-00379-3>

Following publication of the original article (Karato et al., 2020), the author identified there is a minor typo in Fig. 13 and graphical abstract image. The correct Fig. 13 and graphic abstract image are provided below. The original paper has been updated.

The original article can be found online at <https://doi.org/10.1186/s40645-020-00379-3>.

* Correspondence: shun-ichiro.karato@yale.edu

¹Department of Earth and Planetary Sciences, Yale University, New Haven, CT 06520, USA

Full list of author information is available at the end of the article



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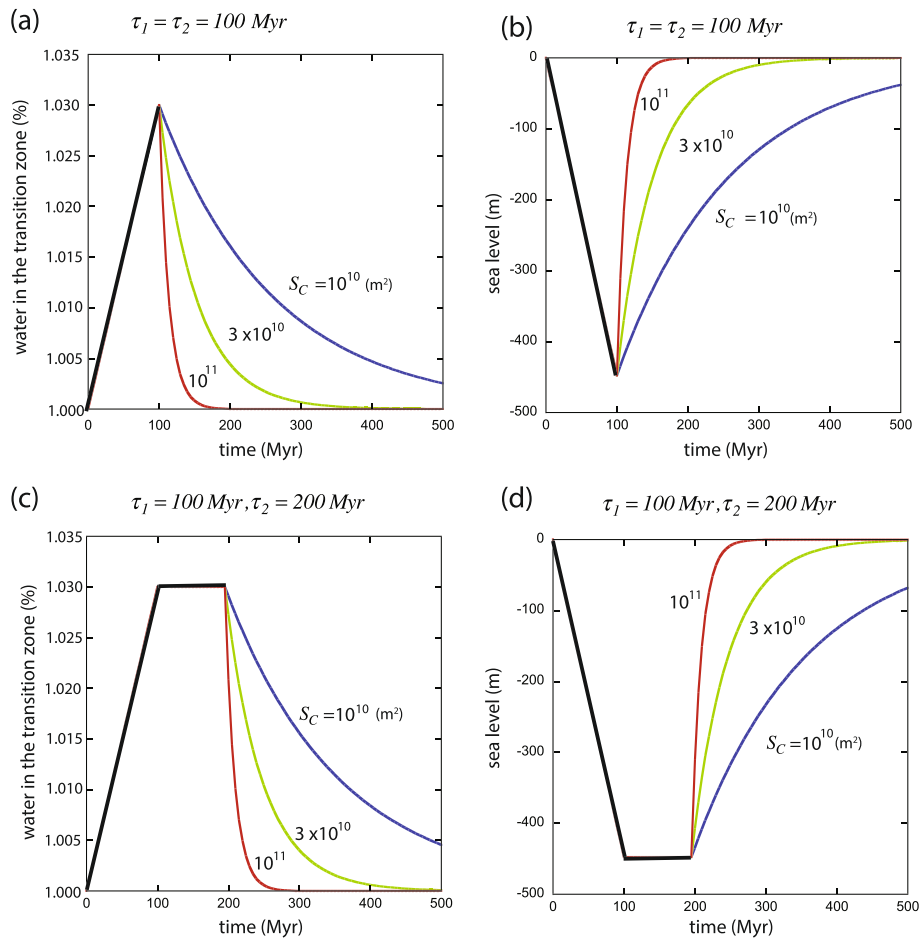
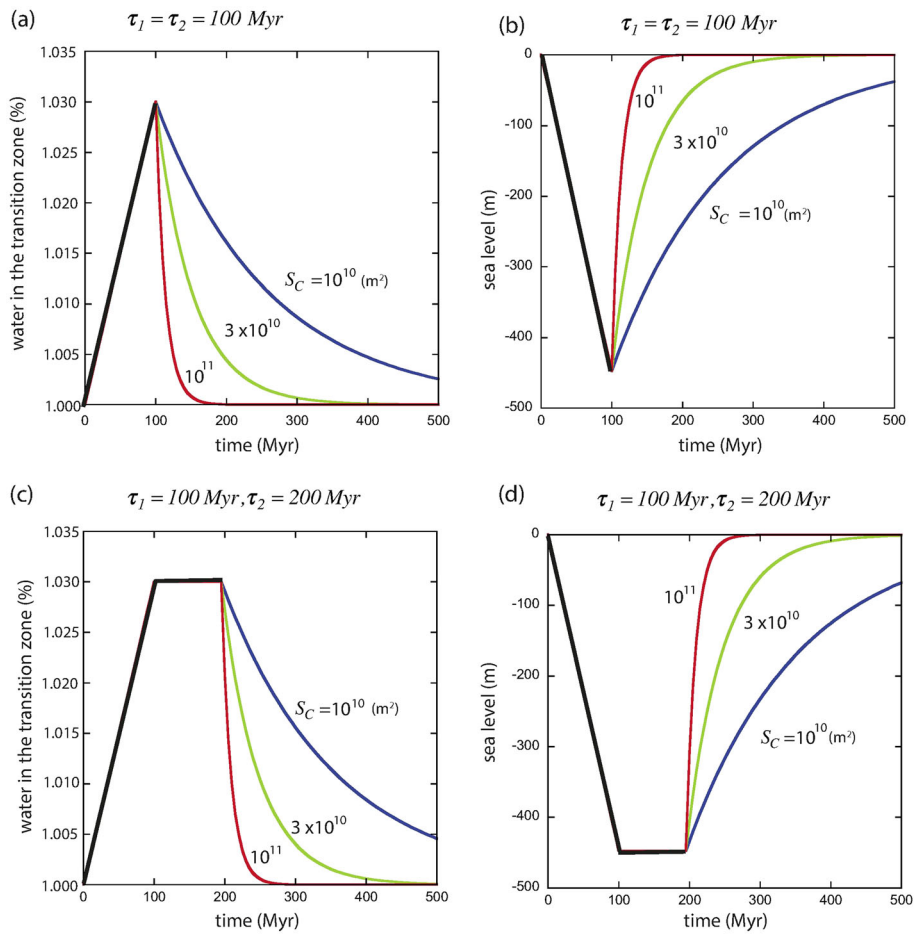


Fig. 13 Results of model calculations on ocean mass history. Regassing parameters (rate of regassing and duration of regassing pulse (τ_1)) are chosen to reproduce the inferred rapid sea-level drop (2–3 m/Myrs (in the last ~ 100 Myrs); Fig. 6). Degassing parameters include the area of cool regions with excess degassing (S_C) and the delay time (τ_2) for degassing since the beginning of excess regassing (and the plume upwelling velocity (~ 1 m/year)). **a** History of the water content in the MTZ ($\tau_1 = \tau_2 = 100$ Myrs). **b** Sea-level change corresponding to the model shown in **(a)** using a relation $\Delta z \approx \frac{M_{MTZ} \Delta X_{MTZ}}{W_{\text{ocean}}}$ (Δz : sea-level change, \overline{z} : average depth of the oceans (= 3730 m), M_{MTZ} : mass of the MTZ (= 4×10^{23} kg), ΔX_{MTZ} : change in the water content of the MTZ; W_{ocean} : mass of oceans (= 1.4×10^{21} kg)). **b** Same as **(a)** except that $\tau_1 = 100$ Myrs, and $\tau_2 = 200$ Myrs. **c** Same as **(b)** except that $\tau_1 = 100$ Myrs, and $\tau_2 = 200$ Myrs. Observed sea-level changes (Fig. 7) can be explained with $S_C = (3-10) \times 10^{10}$ (m²) (i.e., a region with 200–350 km diameter)



Author details

¹Department of Earth and Planetary Sciences, Yale University, New Haven, CT 06520, USA. ²School of Electrical Engineering and Computer Science, Department of Geology and Geophysics, Center for Computation and Technology, Louisiana State University, Baton Rouge, LA 70803, USA.

Published online: 27 January 2021

Reference

Karato et al. (2020) Deep mantle melting, global water circulation and its implications for the stability of the ocean mass. *Prog Earth Planet Sci* 7:76 <https://doi.org/10.1186/s40645-020-00379-3>