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Correction to: Deep mantle melting, global water circulation and its implications for the stability of the ocean mass (Progress in Earth and Planetary Science, (2020), 7, 1, (76), 10.1186/s40645-020-00379-3)

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CORRECTION

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

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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>.

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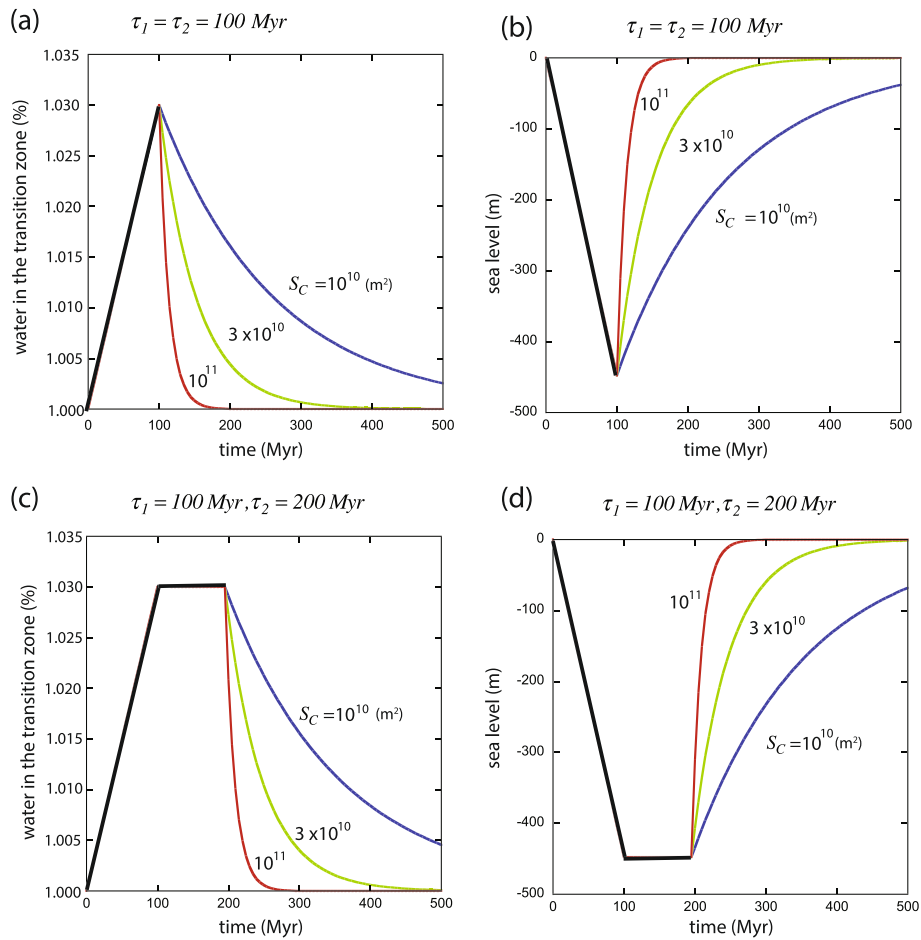
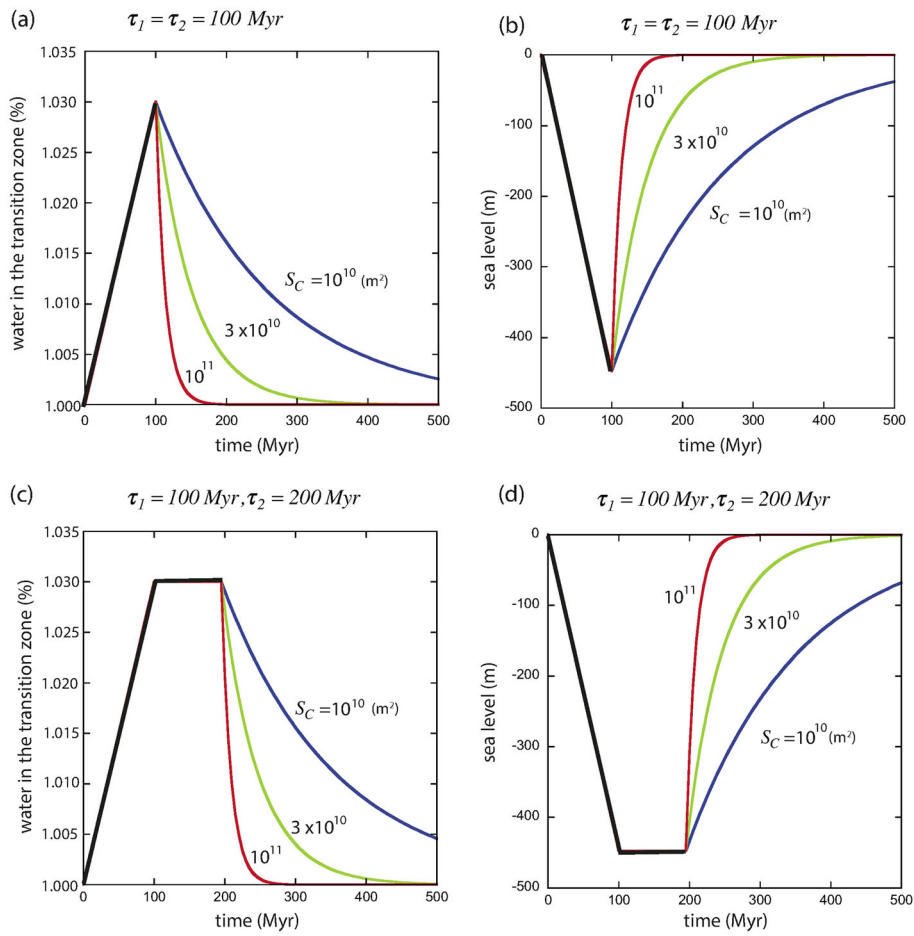


Fig. 13 Results of model calculations on ocean mass history. Regassing parameters (rate of regassing and duration of regassing pulse (τ_1)) are chosen to reproduce the inferred rapid sea-level drop (2–3 m/Myrs (in the last ~ 100 Myrs); Fig. 6). Degassing parameters include the area of cool regions with 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 $\Delta z \approx \frac{\overline{\Delta X_{MTZ}}}{W_{\text{ocean}}}$ (Δz : sea-level change, $\overline{\Delta X_{MTZ}}$: 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 **(a)** 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)



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