Australasian microtektites: early target-projectile interaction in large impacts on Earth

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Supplementary Information

The Supplementary Information includes:

- Table S-1
- Figures S-1 to S-3
- Supplementary Information References

Supplementary Table

**Table S-1** Major element (oxides, wt. %) and trace element (Ni, Co, Cr, and Eu) contents of Australasian microtektites used in this work. Microtektites are listed according to site of provenance, in alphabetical order.

Table S-1 is available for download (.xlsx) from the online version of this article at [http://doi.org/10.7185/geochemlet.2427](http://doi.org/10.7185/geochemlet.2427).
Supplementary Figures

**Figure S-1** Main petrographic features of the microtektites studied in this work. (a) A batch of microtektites from deep-sea sediments (stereomicrograph). (b) Stereomicrograph of a set of microtektites from the Transantarctic Mountains. (c) Micrograph of a sectioned microtektite from deep sea sediments found within 3000 km from the putative impact location in Indochina. (d) Micrograph of a sectioned microtektite from the Transantarctic Mountains. Inset: a 25 µm diameter vesicle in a sectioned microtektite from the Transantarctic Mountains 430 µm across. For the few lechatelierite inclusions observed in the Transantarctic Mountains microtektites, see Figure 4c in Folco et al. (2009). (e) Back scattered electron image of a sectioned microtektite from deep sea sediments found within 3000 km from the putative impact location in Indochina. (f) Backscattered electron image of a sectioned microtektite from the Transantarctic Mountains. See main text for details.
Figure S-2  (a) Cobalt and (b) Cr concentrations (µg/g) versus distance (km) from the putative impact location in Australasian microtektites. Geochemical data set \((n = 144)\) from Brase et al. (2021), Folco et al. (2009, 2016, 2018), Glass et al. (2004), Glass and Koeberl (2006), Soens et al. (2021) and Chernonozhkin et al. (2021); see Table S-1. The putative impact location is from Ma et al. (2004). Cobalt and Cr concentrations for Earth’s upper continental crust are from Taylor and McLennan (1995).
Figure S-3  (a) Magnesium and (b) Eu concentrations (µg/g) versus distance (km) from the putative impact location in Australasian microtektites. Geochemical data set (n = 144) from Brase et al. (2021), Folco et al. (2009, 2016, 2018), Glass et al. (2004), Glass and Koeberl (2006), Soens et al. (2021) and Chernonozhkin et al. (2021); see Table S-1. The putative impact location is from Ma et al. (2004).
Supplementary Information References


