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Mass extinctions, recovery and resilience

Platinum-group elements link the end-Triassic mass extinction to volcanism

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Elevated concentrations of iridium (Ir) and other platinum-group elements (PGE) have been reported in both terrestrial and marine sediments associated with the end-Triassic mass extinction (ETE) c. 201.5 million years ago. The source of the PGEs has been attributed to condensed vapor and melt from an extraterrestrial impactor or to volcanism. Here we report new PGE data for volcanic rocks of the Central Atlantic Magmatic Province (CAMP) in Morocco and show that their Pd/Ir and Pt/Ir ratios are similar to marine and terrestrial sediments at the ETE, and very different from potential impactors. Hence, the PGEs provide a new temporal correlation of CAMP volcanism to the ETE, corroborating the view that mass extinctions may be caused by volcanism.