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## Lower Triassic marine $\delta^{34}\text{S}$ trend in the Dolomites (Northern Italy)

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The Permian - Triassic boundary marks the severest mass extinction in earth history. More than 90 % of all skeleton building species became extinct in this event. Despite numerous investigations the responsible mechanisms still are not unequivocally identified. Among the more popular hypotheses are bolide impact, global warming, global cooling, global ocean water poisoning, marine anoxia and volcanism. To identify the processes that really were relevant during this unusual period geochemical proxies are investigated.

Here we present some sulphur isotope data of evaporites from the Permian-Triassic Boundary and the Lower Triassic in the Dolomites (Northern Italy). The curve shows low values in the uppermost Permian and the basal Lower Triassic and increases steeply to significantly enriched values in the vicinity of the Dienerian-Spathian Boundary. The sulphur isotope values remain elevated for the Smithian and Spathian substages of the Lower Triassic. Changes in ocean circulation are the most plausible causes for the presented isotope curve. The sulphur isotope curve of evaporites does not fit with the curve of CAS (carbonate associated sulphate) investigated in the Dolomites and elsewhere. The available data makes it appear plausible that CAS isotope data not always represents primary marine signals.