



New detailed carbon isotope analysis of sedimentary organic matter from the classical Triassic-Jurassic Kendelbachgraben (Austria)

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Carbon-isotope excursions are recognized in the sedimentary organic matter of some key Triassic-Jurassic boundary sections in Europe and North America. While some European boundary sections (St. Audrie's Bay, Tiefengraben sections) show consistently 2 pronounced carbon-isotope shifts no anomaly has been revealed at the Kendelbachgraben in previous studies.

A new high resolution study of the classical Kendelbachgraben, will ascertain whether the continuous Triassic- Jurassic marine sediments of the Kendelbach Formation are characterized by a short-lived chemo-stratigraphic event. Such an event would provide a strong correlation tool between sections within and outside the Alpine realm and would further indicate a more precise position of the Triassic-Jurassic boundary.

Carbon isotope content of lipids extracted from the sediments will indicate whether an event is the result of changes in supply of terrestrial versus marine organic matter or by changes in bio-production, marine stagnation and anoxia or other processes. It excludes secondary processes that may influence the carbon-isotope composition of the sedimentary organic matter.