

## Predominance of even-numbered n-alkanes spanning the end-Permian mass extinction and the Induan-Olenekian biotic turnover

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The greatest mass extinction occurred at the end of the Permian. The biotic recovery was much delayed until the beginning of the Middle Triassic, and hostile environments for organisms are thought to have occurred repeatedly during the Early Triassic. We present new information regarding the marine environment of the Early Triassic, using organic molecules. We show that a predominance of even-numbered n-alkanes (n-C14 to C18 and C16 to C22) occurred spanning the end-Permian mass extinction and the Induan-Olenekian biotic turnover. We attribute this to expansion of microbial communities and/or diagenetic products under acidic ocean conditions across these boundaries. These unusual phenomena are thought to be related to the mass extinction and the I-O biotic turnover.

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