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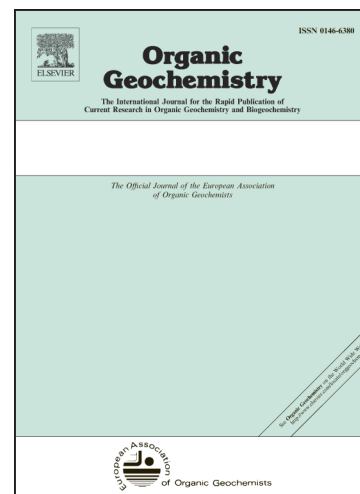
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^{34}S character of organosulfur compounds in kerogen and bitumen fractions of sedimentary rocks

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ABSTRACT

Hydrolysis (HyPy) of S-containing oil mature rock samples from two geologic settings each produced much higher concentrations of organosulfur compounds (OSCs) compared to their free occurrence in the bitumen. The ^{34}S values of the most abundant OSCs from the kerogen and in the bitumen, were measured by gas chromatography inductively coupled plasma mass spectrometry (GC-ICP-MS). DBT and mDBTs from the HyPy processed kerogen fractions showed a distinct ^{34}S depletion, with ^{34}S values up to 12 ‰ lighter than their bitumen occurrence. The different ^{34}S values of OSCs from the kerogen and bitumen fractions is likely reflective of differences in timing of production, reduced sulfur sources or organic sulfurisation mechanism.

1. Introduction

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