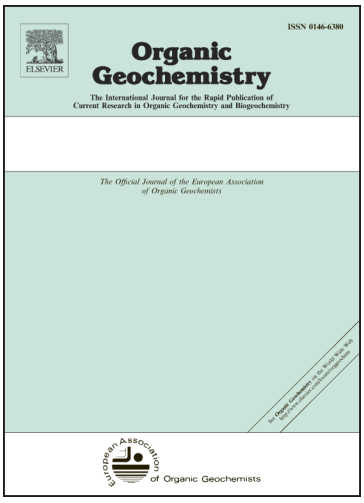

Note

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Selective preservation among bacterial alkyl glycerol ether lipid structures during long term oxic and anoxic incubation

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Abstract

Bacterial mono- and dialkyl glycerol ether lipids (MAGEs and DAGEs) are potential powerful lipid biomarkers whose respective diagenetic fate still needs to be precisely assessed. To do so, the lipid content of cultures of an anaerobic bacterium synthetizing both MAGEs and DAGEs was analyzed at different growth stages and after long-term incubation under aerobic or anaerobic conditions. The proportions of the different lipid classes (fatty acids, MAGEs and DAGEs) as well as their structural distribution did not significantly vary during anaerobic growth under optimal conditions until the stationary phase. Long-term exposure to oxygen (up to 480 days)