

Degradation, preservation, and transformation of organic material through Lake Baikal water column

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Lake Baikal offers a unique opportunity to study water column processes in a freshwater system with conditions similar to oceanic systems, e. g. great water depth and oxygenated water column. Investigations on sediment trap material provide information on the early stages of organic matter degradation in the water column. Sediment trap material from 18 different water depths has been analysed for bulk organic matter parameters, including organic carbon and nitrogen isotopic compositions, chlorin concentrations, and Chlorin Indices. Detailed studies focused on the concentration and composition of amino acids and lipids. We will present data from nitrogen isotope measurements on amino acids and carbon isotope measurements on lipids and use those to give some hints on source and transformation of those compounds.