Early diagenesis how to impact C/N and organic isotopic compositions in the Lacustrince Sediments

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C/N, organic carbon isotopic compositions and organic *n*-alkane components have been analyzed in surface sediments from 28 lakes in the Koh Xil area and 26 lakes in the northeastern China. Early digenesis can impact the ratios of C/N and the values of $\delta^{13}C_{org}$ at the beginning of terrestrial and aquatic plants inputting the lake water bodies, and lower the C/N and $\delta^{13}C_{org}$ obviously in the process of transferring and accumulation of organic matter. Changed C/N and $\delta^{13}C_{org}$ cannot indicate organic sources very accurately. Submerged plants, algae and C4 grasses degrade most intensively in the evolvement process of organic matter. Original values of organic isotope may be in the range of -17‰ to -20‰; Organic matter mainly from terrestrial plants changes in minimum and original organic isotope is about -26‰~-30‰; floating aquatic and emergent macrophytes are in the mid, and original isotope is about -20‰~-26‰. In general, organic matter in the lakes is remade with types of organic matter, water characteristics, depth and residue time of lake waterbodies. Organic isotopic compositions of endogenous algae and aquatic merged, submerged and floating plants lower more obviously than that of the terrestrial plants which changed less can indicate primary environments preferably.

Keywords: lake; organic matter; early diagenesis; C/N; organic isotopic composition;

Geochronology of ore-bearing granites in the Baishan Mo Deposit, Eastern Tianshan, Xinjiang

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The Baishan Mo deposit is located in the eastern section of Jueluotag tectonic belt, Eastern Tianshan, Xinjiang, China. In this study, we sampled the deep (1500m below surface) ore bearing granite from the latest exploration drill core. Furthermore, we tested the zircon U-Pb age of ore-bearing granites is 228.5±8.9 Ma (MSWD=3.1) by La-ICPMS in Hefei University of Technology.

The zircon U-Pb age of the ore-bearing granites (228.5±8.9 Ma) is the same with mineralization age (227.7± 4.3 Ma) in Bashan Mo deposit within error [1], which further confirms that Baishan Mo mineralization was genetically related with the granite body[2].

In Eastern Tianshan-Beishan area, there are numerous Mo deposits was found through current exploration, including Dongebi, Huaheitan and Xiaohulishan Mo deposits [3][4]. The Baishan Mo-bearing granite was intruded in Mid Triassic epoch. This geochronological result affords credit evidence to genetic research of the Mid Triassic Mo mineralization in the regional area.

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