

Lakes as Archives: Formation, Deposits, and Magnetic Proxies

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This presentation highlights lakes as dynamic geological archives that preserve high-resolution records of regional environmental and climatic change. It outlines processes of lake formation, types of basins, and controls on lacustrine deposition, emphasizing links between hydrology, climate, and sediment supply. The talk explains how subaerial weathering alters iron-oxide minerals and modifies magnetic mineralogy and grain size in lacustrine sediments. It further describes field sampling, core processing, and environmental magnetic measurements such as SIRM, HIRM, and S-ratio to infer erosion intensity, and Holocene paleoclimate from lake sediment records.