

Paleomagnetic correlation of sedimentary sequences: The use of secular geomagnetic variations for the differentiation and correlation of Holocene Aral Sea deposits

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Abstract

The paper presents results demonstrating the possibility of using data on paleosecular magnetic variations for correlation of young deposits. Using Holocene deposits of the Aral Sea as an example, it is shown that the combination of paleo- and petromagnetic data can be used to reliably correlate sections in presently isolated parts of a basin, as well as to correlate paleohydrologic events and estimate their age with regard for absolute radiocarbon datings. It is established that the most significant drop in the Aral Sea level occurred more than 2000-2500 yr ago and less significant drops that occurred later are dated at about 1500, 750-1050, and 270-500 yr ago. © Pleiades Publishing, Ltd. 2007.

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