Cosmic matter in the oil sediments of the Middle Caspian

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Abstract

Paleogeography state and conditions are determined by the internal and external factors. Magnetic microspheres from cosmic matter can be used during the stratigraphic correlations. The paper presents the first data on the findings of the microspheres in oil Mesozoic (Jurassic and Cretaceous) sedimentary rocks in the Middle Caspian. It found nearly perfect spherical formations diameter 200-900 mm. Microspheres are confined to the Aptian, Hauterivian and Oxford tiers. In appearance, they are close to the spherules found in other regions. Studies of cosmic matter were performed using scanning electron microscopy with X-ray spectral microprobe analysis. Finding cosmogenic spherules in sediments may make a new tool for regional and global correlations, and to help in the search for hydrocarbon deposits.

Keywords

Cosmic dust, Magnetite, Microsphere, Oil bearing, Stratigraphy