Geophysical Research Abstracts, Vol. 9, 05329, 2007
SRef-ID: 1607-7962/gra/EGU2007-A-05329

Fe/Mn ratio in upper absheron substage succession in the Western flank of the South Caspian depression

E. Amirov

Geological Institute of National Academy of Science, Baku, Azerbaijan
(amirovelnur@yahoo.com / Phone: +994503055058)

The Caspian Sea, the largest land locked basin in the world, isolated from ParaTethys at the end of Messinian. Since that time sedimentation there took place under conditions of isolated basin temporarily connected with Black Sea in Upper Pliocene (Akchagyl). The aim of this work was the reconstruction of paleosalinity of South Caspian basin in upper absheron substage time by using Fe/Mn ratio from ostracoda carapaces.

The quantitative changes of ostracoda composition for each interbed depending on paleosalinity fluctuations, in detail point out the tendency of increasing and decreasing of Fe/Mn ratio in carapaces as indicator of paleosalinity. It was clearly recognized that Fe/Mn ratio increases in transgrssive system tract and reduces in high stand systems tracts. As well as was observed positive correlation tendency between amount of ostracoda carapaces and Fe/Mn ratio, in most cases with increasing of Fe/Mn ratio, amount of ostarcoda carapaces increase and with decreasing of Fe/Mn ratio, amount of ostracoda carapaces reduce. Just in some cases we can observe invert correlation, for example at bedset V, which is the transgressive system tract. Carried out biogeochemical analyses also have shown, that amount of the studied elements, including Fe and Mn considerably varies in a section, which reflects the change in depositional setting during accumulation of sediments.