

## **Geodynamic evolution of the Black Sea-Caspian Region in the Mesozoic-Cenozoic and hydrocarbon prospectivity**

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Mesozoic-Cenozoic (Alpine) tectonic epoch was decisive in the final formation of geostructure of the Black Sea-Caspian region and forming of regional and local structures. Geodynamic analysis of lithospheric plates' movement around Tethys shows that it appeared due to subduction of the Tethyan oceanic crust at approach and collision of Eurasia, Africa, Arabia and India. Geological sections and composition and type of formations show that in Mesozoic on the southern margin of Tethys existed an environment of shelf sedimentation, that is the passive type of continental margin is recognized. Made by us formational analysis of Mesozoic deposits of the Black Sea region together with the data on fore-Caucasus show that in Triassic-Jurassic the northern bordering of Tethys represented an active continental margin of Pacific Ocean type. Northern margin of Tethys during the last 190 million years consisted of separate volcanic arcs, in back parts of which separate sedimentary basins have formed. Magmatism as well as the data of geophysical investigations confirm the statement that the present-day Black and Caspian seas are the relict of back-arc basins, which appeared due to spreading in the back part of the Cretaceous-Paleogene island arc. These marginal seas (Para-Tethys) in Eocene reached their maximum size, being joint into the united basin, which occupied the present-day water area of Caspian, Black seas and areas of Caucasus and Moesian plate. Starting from this period its reduction takes place. Geodynamic regime of the Black Sea-Caspian region in Alpine tectonic epoch caused not only significant movements of lithospheric plates, but also facilitated the different-scale horizontal shifts within a sedimentary cover, determining the way of oil and gas accumulation and the method of prospecting and exploration for hydrocarbons at great depths both onshore and offshore.