РЕБЕЦКИЙ и др.

PRESENT STRESS FIELD OF THE CRUST IN SOUTH-WEST EUROPE AND THE MEDITERRANEAN SEA

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The article presents the results from the reconstruction of modern tectonic stress field obtained from data on earthquake focal mechanisms using the method of cataclastic analysis of discontinuous displacements. It was revealed that the present state of crustal stress of Western Europe and the Mediterranean is not associated with any single externality. The major tectonic structure with the stress state, which looks naturally interrelated in a single field, is a depression crust of the Aegean Sea and its near environment. Noteworthy is the large number of cortical areas (over 40%) with type geodynamic stress state corresponding to horizontal extension. Areas with a horizontal compression are significantly less representative (less than 15%). This may indicate that the total external lateral forces affecting the lithosphere of Western Europe and the Mediterranean are not great, and deformation processes in the study region are associated with the impact on the bottom of the crust caused by the mantle, as well as with intracrustal or intralithosphere processes.

Keywords: Tectonophysics, earthquake source machanisms, stresses, crust deformation conditions.