

## Tectonic specificities and macroseismic characteristics of the south-west of the Russian Platform

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**Abstract** The tectonic specification of the West-European (Russian) platform (by the case territory of the Republic of Moldova) has been examined and its reflection in helium, macro seismicity, hydrogeochemical and geophysical fields as well. The modern ideas about seismically tectonic of the Vrancea region were summarized. Helium detailing mapping of groundwater and allocation of old/young faults contribute considerably to this study. As well a comparative map of tectonic faults allocated by magnetic, gravity, geological and geomorphological data has been prepared. The background and local macroseismic maps were performed on data of the Vrancea earthquake from 04.03.1977. The character of the background map was determined by the mantle heterogeneity and old tectonic faults with spreading dislocation. The young tectonic faults, which are oriented perpendicular to seismic waves, create positive anomalies of the macroseismic field. The young faults, which are oriented tangential to seismic waves, create shadow effects of decreasing shaking. Local macroseismic fields are connected with structural features of the upper part of the sedimentary cover.

**Keywords** Russian platform, tectonic faults, macroseismic field.

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