

CORELATION BETWEEN TECTONIC STRUCTURES, SEIZMISITY AND GEOTHERMAL ANOMALIES IN THE SKOPJE VALLEY, REPUBLIC OF MACEDONIA

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The Republic of Macedonia is situated in the east of the Balkan Peninsula. From the geotectonic point of view it belongs to the young Alpidic-Himalayan mountain belt. Older tectonic blocks with Granville, Baykal, Caledon and Hertzian age make the geology and tectonics very complex. Tectonic setting of Macedonia is based on the fact terrain situation, i.e. on structural features of the geological units without any preference of different geodynamic theory. The seismicity of Macedonia is related with neotectonic active regional and local faults. The biggest structure is one transversal fault which passes from Albania through north part of Macedonia to the Bulgaria. On this structure Skopje Valley lies. The earthquake hypocenters are with small depths, up to 10km in the Skopje valley. It is believed that all earthquakes in the valley are with tectonic origin but there is an opinion by which the geothermal energy accumulations are cause of seismicity. The last earthquake in the Skopje Valley was in 1963 with hypocenter at 2.5km depth. This corresponds with Tertiary sediment thickness i.e. contact between paleorelief and young sediments. This supposition has to be subject of detailed assigned researches with main reason to prevent catastrophic earthquakes in Skopje as a Macedonian capital where 2/3 of inhabitants live. This paper deals with tectonic setting and seismicity, specially earthquake hypocenter dispositions and their relation with geothermal occurrences in the Skopje Valley.