

Seismicity in correlation with the internal composition of the earth's crust in the territory of Macedonia

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The territory of the Republic of Macedonia occupies the central part of the Balkan peninsula. Available knowledge of the area indicates that it is characterized by high seismicity. Over the long history it was affected by strong earthquakes that are frequent in the present time and can be expected in the future.

An analysis of the epicentral area distinguishes three seismic zones. They are the Drim, the Vardar and the Strumica zones.

Analyses carried out on earthquakes that took place in the territory of Macedonia over the past fifty years show that all earthquakes took place at depths that are not greater than Moho-discontinuity. Most of the earthquakes are closely related to the neotectonic active fault structures.

Based on the seismic activity manifested in the area so far it can be inferred that the seismic energy in this area is generated by the tectonic processes in the earth's crust.

The earthquakes that have taken place so far were in the areas where fault dislocations intersect. This data supports the assumption that present day movements in the earth's crust in individual areas result in accumulation of large amounts of energy which causes earthquakes to take place when it exceeds the critical level or when there is release of possible energy as dynamic energy.