Aftershock processes supporting moderate and weak earthquakes in the area of the Bishkek geodynamic ground and in its neighborhoods

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Abstract

The aftershock activity of moderate and weak earthquakes that occurred on the territory of the Bishkek Geodynamic Test Site and in its vicinity from 1996 to 2017 has been considered. There were 21 earthquakes with $K \ge 10$ and their aftershocks. For this area an estimation of the seismic activity has been obtained, distributions of the intensity of seismotectonic deformation has been built for the study period and before it. Epicenters of earthquakes, accompanied by aftershocks, were located in zones of large regional faults of various types. The distributions of aftershocks in time and space have been considered. Various characteristics of aftershock activity have been obtained involving their dependencies on the class of the main shock and the trends. The controversial aspects that arose in the analysis of aftershock sequences have been considered.

Keywords

Earthquake, Graph of earthquake repeatability, Foreshock Aftershock, Earthquake energy, Fracture



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