

Monitoring of seismic processes and physical parameters of earthquake focuses in the Northern Tien Shan

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Abstract Monitoring of seismic processes and physical parameters of the focus of nearby earthquakes for 2019 was carried out within the territory $\varphi=41.5-43.5^{\circ}\text{N}$, $l=72.0-80.0^{\circ}\text{E}$ Northern Tien Shan at the junction of the Tien Shan mountain building area and the Kazakhstan shield based on data from digital seismic stations of the KNET and KRNET networks. At the same time, the velocities of seismic waves V_p , V_s , V_p/V_s , Poisson's ratio, seismic parameter B and compression modulus K, shear modulus μ , M_0/μ ratios of the seismic moment and shear modulus, focus types: with the manifestation of fluids, with the manifestation partial melting, with the manifestation of high pressures in the sequence of earthquake manifestations. It is noted that seismic processes are cyclical.

Keywords Earthquake, focus, seismic waves, wave velocity, Poisson's ratio, seismic parameter, compression modulus, shear modulus, fluids, partial melting, high pressure.

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