

Discrimination of Nuclear Explosions and Earthquakes at Regional Distances for the Lop Nor Test Site According to the KNET Network Data

Data of seismic monitoring network KNET, located in Kyrgyzstan and Kazakhstan, which is began its operation in 1991 are actively used by researchers around the world. Over the years, the KNET network has recorded a large number of seismic events of various nature occurred in the area of the Lop Nor test site. In addition, on several stations of KNET network such as AAK, EKS, BGK, CHM and TKM stations, during the Soviet era analog stations have operated. A comparative analysis of the waveforms of underground nuclear explosions conducted at regional distances at the Lop Nor test site in 1975–1996, as well as tectonic earthquakes from 1991–2018 with epicenters located near the test site, was carried out. The spectral ratios of the longitudinal and shear wave's amplitudes (S_n/P_n , L_g/P_g) of underground nuclear explosions and earthquakes are investigated.

Primary author: BEREZINA, Anna (Institute of Seismology (IS))

Presenter: BEREZINA, Anna (Institute of Seismology (IS))

Track Classification: Theme 2. Events and Nuclear Test Sites