ID: Type: **Poster**

of the Wave Pattern of Nuclear Explosions Records from Lop Nor Test Site by Central Asia Stations

The report shows the investigation results of the wave pattern of underground and air nuclear explosions conducted at Lop Nor Test Site (China), and tectonic earthquakes with epicenters close to the Test Site region. For the analysis, the digitized analogue and digital seismograms from Central Asia seismic stations at distances of ~700–2000 km for the period of 1965-2016 were used. For seismic discrimination, the structure of short-period seismic fields from UNEs and earthquakes was studied. Threshold values for each parameter were determined, and discrimination quality was estimated. To investigate the geodynamic processes at the Test Site, the characteristics of short-period S-wave attenuation field at this area were considered by data of Kazakhstan station BRVK. The methods based on analysis of relative level of Sn and Pn waves (Sn/Pn parameter), and slope of P-coda envelopes were used. The UNE records show considerable diminishing Sn/Pn mean values and increasing P-coda envelopes slope from the end of 1960-s to 1990-s. The earthquake records from Lop Nor Test Site area showed decrease of Sn/Pn values with time even after the UNEs series ceasing. We suppose that the effects revealed are related to migration of deep-seated fluids as a result of long intensive induced influence.

Primary author: SOKOLOVA, Inna (Institute of Geophysical Researches)

Presenter: SOKOLOVA, Inna (Institute of Geophysical Researches)

Track Classification: 2. Events and Nuclear Test Sites