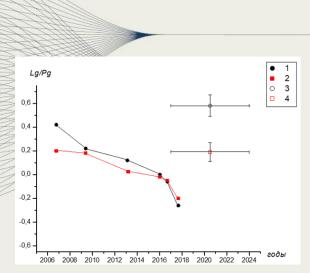
Spatio-temporal variations of short-period S wave attenuation field in a region of the North Korea Punggye-Ri nuclear test site

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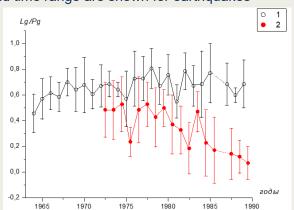


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- We analyzed seismograms of six UNEs which were conducted at the DPRK nuclear test site in 2006-2017, and near earthquakes, obtained by stations MDJ and VLA at distances of ~270-450 km. We studied the ratios of maximum amplitudes of Lg and Pg waves (Lg/Pg parameter)..
 According to the UNEs data, Lg/Pg parameter diminished essentially from 2006 to 2017. It was shown that in 2017-2024 the mean value of the Lg/Pg parameter for the earthquakes is higher essentially than for the UNEs data in 2017.
- We compared the new data with data obtained earlier for the Semipalatinsk test site (STS). The mean values of the Lg/Pg parameter for the Balapan site at the STS diminished essentially from 1980 to 1989.
- We suppose that temporal variations of the attenuation field are explained by ascending deep-seated fluids from the uppermost mantle into the earth's crust as a result of intensive influence of the powerful UNEs on the geological medium.



Dependence of the Lg/Pg parameter on time (Punggye-Ri). 1 – UNE (VLA), 2 – UNE (MDJ), 3 – earthquakes (VLA), 4 – earthquakes (MDJ). Mean values, standard deviations and time range are shown for earthquakes



Temporal variations of the Lg/Pg based on TLG station records (STS).1 – Degelen, 2 – Balapan. Mean values and standard deviations are shown