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# 2.2-P02. Accuracy analysis of the CTBTO nuclear test detection scale and Improvement in Korean Peninsula

Generally CTBTO (Comprehensive nuclear Test Ban Treaty Organization) doesn't care about artificial explosive that is being received low-yield in accordance with the criteria of nuclear detection. But, at the time that North Korea conduct a nuclear test, it should not be overlooked that the scale of the earthquake detection criteria below. Because DPRK is trying to conceal their nuclear development capability, there are possibility of low-yield nuclear test or possibility of install a buffer to hide actual explosive scale. A typical example can be referred to events that occurred in 2010. Between 13 and 23 May 2010, four atmospheric radionuclide surveillance stations, in South Korea, Japan, and the Russian Federation, detected xenon and xenon daughter radionuclides in concentrations up to 10 and 0.1 mBq/m3 respectively. These radionuclide observations were consistent with a DPRK low-yield nuclear test on May 2010, even though no seismic signals from such a test have been detected. But there were a few times of low-yield (magnitude 1.39~1.93) occurred around DPRK nuclear test site at that time. Our motivation is from here. That is about Low-yield seismic events in Korea peninsula.

**Primary author:** RYU, youngkwang (Seoul National University)

**Presenter:** RYU, youngkwang (Seoul National University)

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