

## Review of Explosive Yield Estimation

Yield estimation of explosions using seismic ways is always a difficult problem in seismology. There are many factors that can affect the result of yield estimation such as source characteristics, depth of burial, propagation path, attenuation, variation of the crustal structure and so on. Accurate yield estimation need a suitable relationship which is always empirical and must solve the problems mentioned above. Yield is directly related to the power released by the events that somewhat can be expressed with magnitude. So, magnitude-yield estimation relationship is common used in yield estimation including body-wave magnitude, surface-wave magnitude and coda wave magnitude, each has its advantages and disadvantages. The main purpose of the paper is to summarize the existing yield estimation relationships and make a simple analysis on interference factors. We focus on the description of underground nuclear explosions's yield and summarize the information of North Korea underground nuclear explosions.

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**Track Classification:** 2. Events and Nuclear Test Sites