

to Define Estimation of Average Strain Release Energy and Dislocation Site of Rupture Based on Seismic Moment and Length of Fragment (Case Study: Earthquake of Simeuleu – Nias, 11 January, 2012 in Mw: 7.2)

It was noted on 11 January 2012 at 01:36:57 a.m - WIB had already happened a shallow tectonic earthquake with epicenter located 2.41 NL, 93.09 EL, precisely 358 South West of Simeuleu-Nias, North Sumatra Province with its Magnitude moment (Mw) : 7.2, with 10 km depth. In the Simeuleu earthquake with Magnitude moment (Mw) : 7.2, we had already estimated its seismic moment in the earthquake using a Kanamori equation (1977), found 5.6×10^{26} dyne.cm. It means, by using a Scaling Law method, it was noted the length (L) and Wide of fragment with rapture in the earthquake of Simeuleu of (Mw : 7.2) in 50.1 Km and 25.05 Km, whereas the wide area deformation in surface of fragment site has got already rapture in $2,208 \times 10^{13}$ cm². Even so, its average dislocation of rapture usus = 152 Cm. It was that Estimation Strain Release Energy on the Earthquake Simeuleu (Mw : 7.2) based on its length of rapture was noted 5.7×10^{16} erg. Keywords : Strain Release Energy, Dislocation, rapture, seismic moment.

Primary author: GINTING, Mira (NDC Meteorology Climatology and Geophysics Agency (BMKG))

Presenter: GINTING, Mira (NDC Meteorology Climatology and Geophysics Agency (BMKG))

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