

On some aspects of the article «On the stress drop in North Eurasia earthquakes source-sites versus specific seismic energy»

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Abstract. In the article by N.A. Sycheva and L.M. Bogomolov *On the stress drop in North Eurasia earthquakes source-sites versus specific seismic energy* (Geosistemy perehodnykh zon = Geosystems of Transition Zones, 2020, vol. 5(1), p. 393–446. (In Russ. & Engl.). <https://doi.org/10.30730/gtrz.2020.4.4.393-416.417-446>), the Authors proposed to combine the interrelated data on the stress drop in the earthquake sources, $\Delta\sigma$, and reduced seismic energy, e_{PR} , to analyze the dependence of these parameters on earthquake scale along with expansion of the measurement statistics (assessments). The dependence of these parameters of a source on the seismic moment or on the earthquake magnitude within $2.2 \leq M \leq 4.0$ magnitude range has been determined using the example of the Northern Tien Shan (Bishkek geodynamic polygon with the KNET network). The Author of the letter to the editor notes the article conclusions to be limited, because such relationship is only manifested within the more or less narrow range of the magnitudes. Attention is also drawn to the semantic difference between the $\Delta\sigma$ and e_{PR} parameters. It is the reduced seismic energy that reflects the mean strain in the source area, and its appliance to the analysis of scale dependences of earthquake sources is more informative.

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