

Chemical explosion of October 18, 2023 at the Nevada Test Site

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Abstract The results of processing the seismic event of October 18, 2023 in the area of the Nevada Test Site (NTS) are presented using digital records of seismic arrays and three-component stations available in open sources, at local and regional distances. Kinematic and dynamic parameters of the seismic event were obtained. A comparison with well-known reference explosions and tectonic earthquakes on the territory of the NTS in order to estimate the event's yield, as well as determination of the source's nature was made. It is highly likely that the event under study is a chemical explosion with yield of at least two tons.

Keywords CTBT, Nevada Test Site, chemical explosion, subcritical explosion, weak earthquakes, seismic array.

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