



Lava dome extrusion in Nevados del Chillan volcano (Chile) December 2017: LP and tremor as dominant seismicity

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Reactivation of Nevados del Chillan volcanic complex initiated in December 2015 has been characterized by a dominance of LP events and tremor over VT seismicity. Some episodes of “screw- type” events also were recorded but its main seismic activity was, in general, seven episodes of minor vulcanian explosive activity since January 2016 in a mix of hydrothermal and magmatic activity, which reached up to 3 km heights. Energy of seismicity increased drastically in number and energy since December 1, 2017 with a new characteristic, LP and tremor events with harmonic character, showing up to ten overtones. Overflight on December 21 showed the formation of a crack of 40-50 m in the bottom of active crater, which develops to the extrusion of a lava dome, confirmed in a new overflight done in January 9, 2018. Here we make a characterization of seismicity related to this phenomenon.