Paroxysms at Stromboli volcano (Italy): source, genesis and dynamics

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Supplementary Material

Table S1. Age, location and coordinates of the samples.

Table S2. (a) Bulk analyses of the 2019 samples with in addition ST531. (b, c) Electron microprobe analyses of olivine and clinopyroxene in ST207 pumice sample. (d, e) Electron microprobe analyses of olivine and clinopyroxene in PST205 pumice sample. (f, g) Electron microprobe analyses of olivine and clinopyroxene in 2019 pumice samples. (h) Initial conditions and timescales from Fe-Mg diffusion modelling performed with DIPRA (Girona and Costa, 2013).

Table S3. Tephra volume erupted during explosive activity at Stromboli from the ordinary Strombolian activity to large-scale paroxysms and olivine compositions.

Table S4. Averaged analyses of the glassy matrices of the pumice clasts emplaced during paroxysms ad major eruptions at Stromboli.

Figure S1. Histograms of distribution of olivine compositions.