



FIGURE S3. (a) Comparison of measured X-ray diffractogram and calculated best-fit curve obtained from RockJock v11 on a representative sample (BV01). The quartz and rhyolitic tephra (Hekla-4) standard used in the XRD analysis are also shown for comparison. (b–c) Scanning electron microscopy (SEM) images of the 300–63 μm fraction of surface sediment sample BV01. (d) K_2O vs. SiO_2 classification diagram for glass shards from BV01, BV06, and BC11 surface samples. The geochemical composition field of different volcanic provinces of the southern part of the SVZ (Carel et al., 2011, and references therein) and ashes from the 2008 Chaitén eruption (Watt et al., 2009; Ruggieri et al., 2012) are presented for comparison.