



**Figure S3:** (a) Synchronisation of nssS concentrations from TUNU2013 and NEEM-2011-S1 between 1445-1485 CE. Red shaded bar indicates the location of the V1477 tephra layer in the TUNU2013 record. Green shaded bars indicate the two 1450s CE sulphate peaks present in both cores. (b) High-resolution nssS and annual layer dating of the NEEM-2011-S1 ice-core between 1445-1485 CE using a multiparameter approach. Concentration records are shown for nssS, Ca, Na and nssS/Na with grey dashed lines indicating the assigned years. Data for NEEM-2011-S1 from Sigl et al. (2015).