

**Supplementary Information Cover Sheet for ‘The effect of composition,  
temperature and pressure on the oxidation state and coordination  
environment of copper in silicate melts’**

- (1) Supplementary Information 1: An excel spreadsheet containing the melt compositions (wt. %), the melt parameterisations NBO/T and optical basicity, and the single cation mole fractions.
- (2) Supplementary Information 2: A jupyter notebook with the python code used for the global fits.
- (3) Supplementary Information 3: An excel spreadsheet containing the data ( $I_{1s/4p}$ ; temperature, pressure etc., ) needed to run the python code.
- (4) Supplementary Figures: A pdf that contains all of the supplementary figures
- (5) Supplementary Spectra 1: An excel spreadsheet containing the spectra for Fig. 1 and Fig. 2.
- (6) Supplementary Spectra 2: An excel spreadsheet containing the spectra for Fig. S2, S3, S4, S5, S6 and S7.