Viscosity of anhydrous and hydrous peridotite melts

Danilo Di Genova^{1,2}, Dmitry Bondar¹, Alessio Zandonà^{3,4,*}, Pedro Valdivia¹, Raschid Al-Mukadam⁵, Hongzhan Fei¹, Anthony C. Withers¹, Tiziana Boffa Ballaran¹, Alexander Kurnosov², Catherine McCammon¹, Joachim Deubener⁵, Tomoo Katsura¹

¹Bayerisches Geoinstitut, University of Bayreuth, Universitätsstraße 30, 95440, Bayreuth, Germany ²Institute of Environmental Geology and Geoengineering, National Research Council of Italy, Rome, Italy ³CNRS, CEMHTI UPR3079, Univ. Orléans, F-45071 Orléans, France

⁴Friedrich-Alexander-Universität Erlangen-Nürnberg, Department of Materials Science (Glass and Ceramics), Martensstr. 5, 91058 Erlangen, Germany

⁵Institute of Non-metallic Materials, Clausthal University of Technology, Zehntnerstraße 2a, D-38678 Clausthal-Zellerfeld, Germany

*Corresponding authors: alessio.zandona@fau.de

Supplementary Figures



Fig. S1. Heat flow curves obtained from sample S38F5W1 during cooling-heating rate-matching FDSC measurements at various heating rates. The curves collected at 100 K s⁻¹, 200 K s⁻¹ and 1000 K s⁻¹ were respectively magnified x10, x10 and x5 for better visibility of the glass transition interval.



Fig. S2. Heat flow curves obtained during rate-matching FDSC measurements performed at 1000 K s⁻¹ on hydrous peridotite glasses.