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**GEOLOGICAL SURVEY OF CANADA
OPEN FILE 8309**

**Alpha recoil loss of Pb from baddeleyite evaluated by High
Resolution Ion Microprobe (SHRIMP II) depth profiling
and numerical modelling: implications for the
interpretation of U-Pb ages in small baddeleyite
crystals — supplemental data files**

W.J. Davis and D.W. Davis

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W.J. Davis¹ and D.W. Davis²

¹Geological Survey of Canada, 601 Booth Street, Ottawa, Ontario

²Department of Earth Sciences, University of Toronto, 22 Russell Street, Toronto, Ontario

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Description of Contents

This report contains three Microsoft ® Excel ® files that are supplemental material referenced in the publication entitled “Alpha recoil loss of Pb from baddeleyite evaluated by High Resolution Ion Microprobe (SHRIMP II) depth profiling and numerical modelling: implications for the interpretation of U-Pb ages in small baddeleyite crystals” (Davis and Davis, 2017).

Supplemental Datafile 1 presents depth profiling analytical data acquired using the SHRIMP II ion microprobe at the Geological Survey of Canada. Details of the analytical methods are provided in Davis and Davis, 2017)

Supplemental Datafile 2 is an Excel workbook that includes the Visual Basic for Applications VBA code used for the numerical modelling of alpha recoil within minerals.

Supplemental Datafile 3 is an Excel spreadsheet with model alpha recoil loss profiles generated with a resolution of 0.1 nm to calculate best fit recoil models.

References

Davis, W.J. and Davis, D.W. 2017. Alpha recoil loss of Pb from baddeleyite evaluated by High Resolution Ion Microprobe (SHRIMP II) depth profiling and numerical modelling: implications for the interpretation of U-Pb ages in small baddeleyite crystals. in Geophysical Monograph 232, *Microstructural Geochronology*, D.E. Moser, F. Corfu, J.R. Darling, S.R. Reddy & K. Tait, (eds), AGU/Wiley.