## Appendices

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HELLER ET AL.: TITANITE RADIATION DAMAGE ESTIMATION

Data Repository for "Estimation of radiation damage in titanites using Raman spectroscopy"

The material in this data repository containing 5 Tables, one figure and one zip-file includes information on:

Appendix 1: Used IFORS configuration files (14) and one overview table. (Appendix-3\_IFORS\_config\_files.zip)

Appendix 2: Alpha-emitting element contents of the samples and compilation of mean peak values generated by the evaluation of the entire spectra. Table shows all results of the 14 different settings applied (see explanation in text and Appendix 1). (Appendix-2\_Compil\_damage\_and\_Raman\_entire\_evaluation\_all\_settings.xls)

Appendix 3: Peak width and position values of the band 465 cm-1 using setting wf\_sm (see details in Appendix 1). (Appendix-3\_Single-band-evaluation\_465.xls)

Appendix 4: Peak width and position values of the band 424 cm-1 using setting wf\_sm (see details in Appendix 1). (Appendix-4\_Single-band-evaluation\_424.xls)

Appendix 5: Plot of (unweighted) mean FWHMs versus α–dose for 3 different curve–fitting protocols (Appendix-5\_meanfwhm-alphadose.pdf).

Appendix 6: Regression line parameters for all curve–fitting protocols for different damage accumulation durations (plots presented in Figure 5). (Appendix-6\_Regression\_line\_parameters.xls)

Appendix 7: (U–Th)/He age data (Appendix-7\_THe\_ages.xls)