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Supplementary Information for: Multimodal X-ray microanalysis of a $UFeO_4$: evidence for the environmental stability of ternary U(V) oxides from depleted uranium munitions testing

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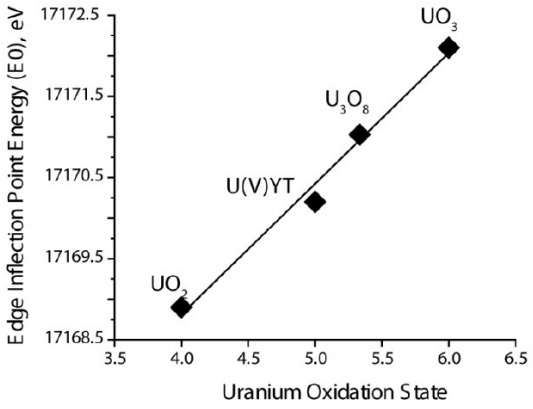

Figure S1: Calibration relationship used for determination of oxidation state. UYT is $U_{0.5}Y_{0.5}Ti_2O_6$

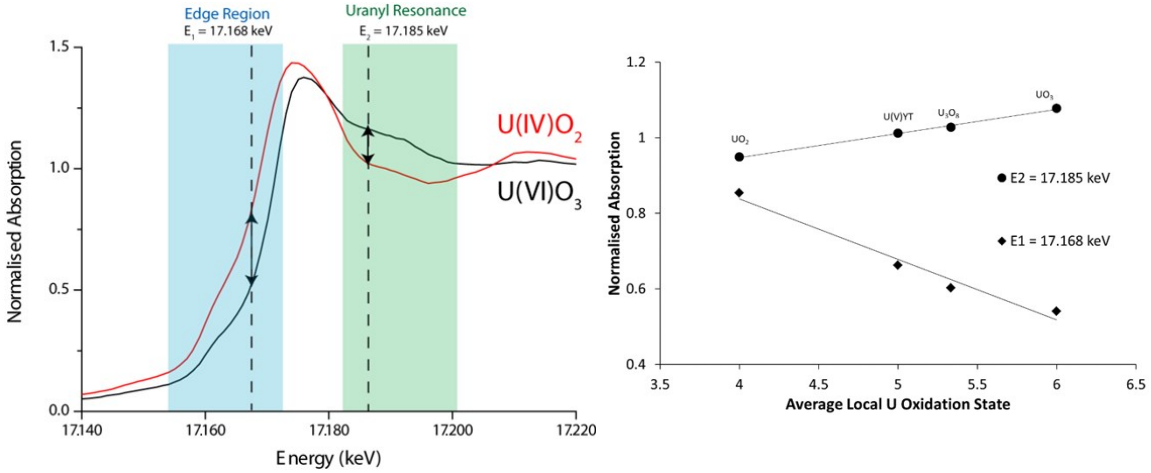

Figure S2: XANES data showing selection of excitation energies for chemical speciation imaging and calibration relationships used for determination of oxidation state. UYT is $U_{0.5}Y_{0.5}Ti_2O_6$

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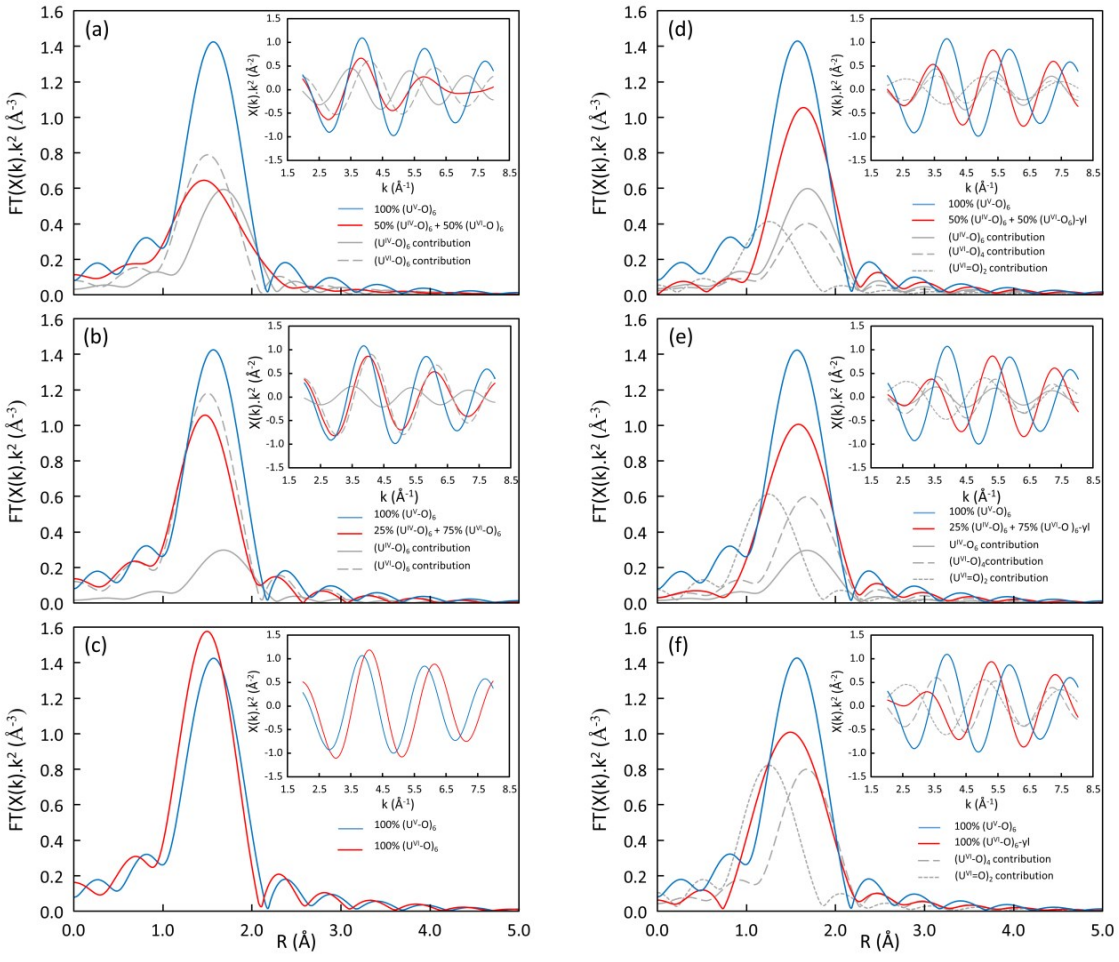

Figure S3: Comparison of computed $k^2\chi(k)$ and $|FT\ k^2\chi(k)|$ for plausible bounding contributions of U(IV) and U(VI) environments to average a U(V) environment in $UFeO_4$, assuming charge compensation by Fe(III) and/or Fe(II). Both uranyl and non-uranyl U(VI) environments are considered. See text for details of calculations.