Supporting Information

When the acetone trap solution was evaporated to near dryness in a beaker, the FT-IR spectrum (red line) showed a peak at 1648 cm\(^{-1}\) which is characteristic of HNO\(_3\) bonded to the TBP of the (UO\(_2\))(NO\(_3\))\(_2\)(TBP)\(_2\) complex according to the literature (Solvent Extr. Ion Exch., 2003, 21, 1-27.). If dodecane and water were added to the beaker, the FT-IR spectrum of the dodecane phase (blue line) showed a significant reduction of the 1648 cm\(^{-1}\) peak intensity which is consistent with the literature report of the FT-IR spectrum for (UO\(_2\))(NO\(_3\))\(_2\)(TBP)\(_2\). The FT-IR spectra were acquired using a Nicolet Magna 760 FT-IR spectrometer equipped with a DTGS detector.