Supporting Information for:

Reactivity of UH_3 with Mild Oxidants

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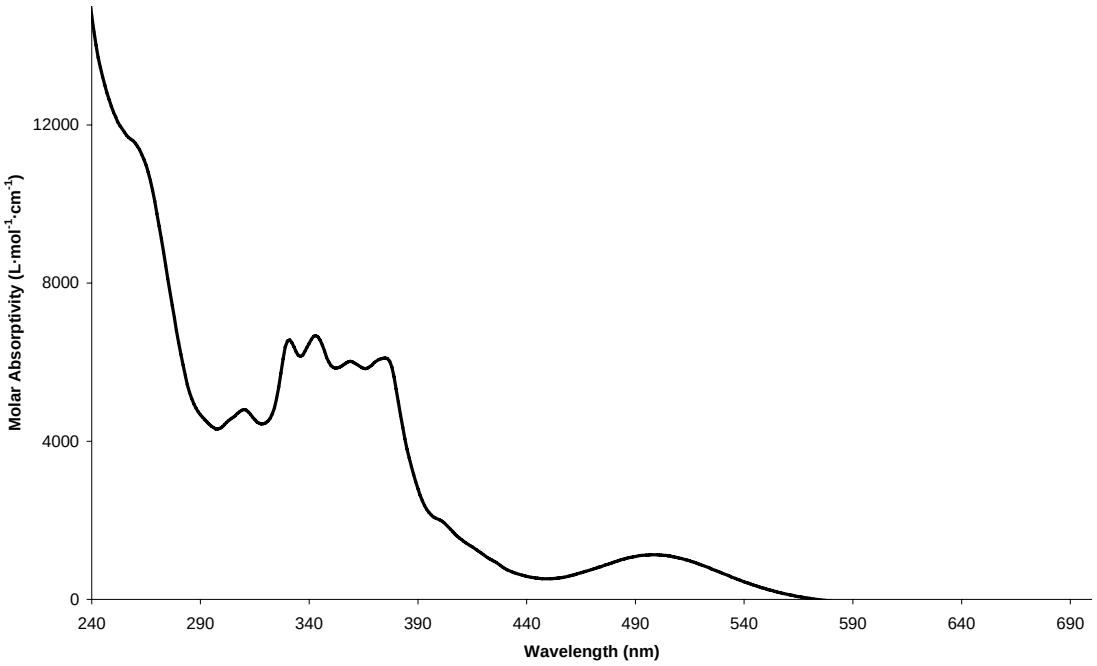

Figure S1. UV/Vis spectrum of **1** in Et_2O (0.091 mM).

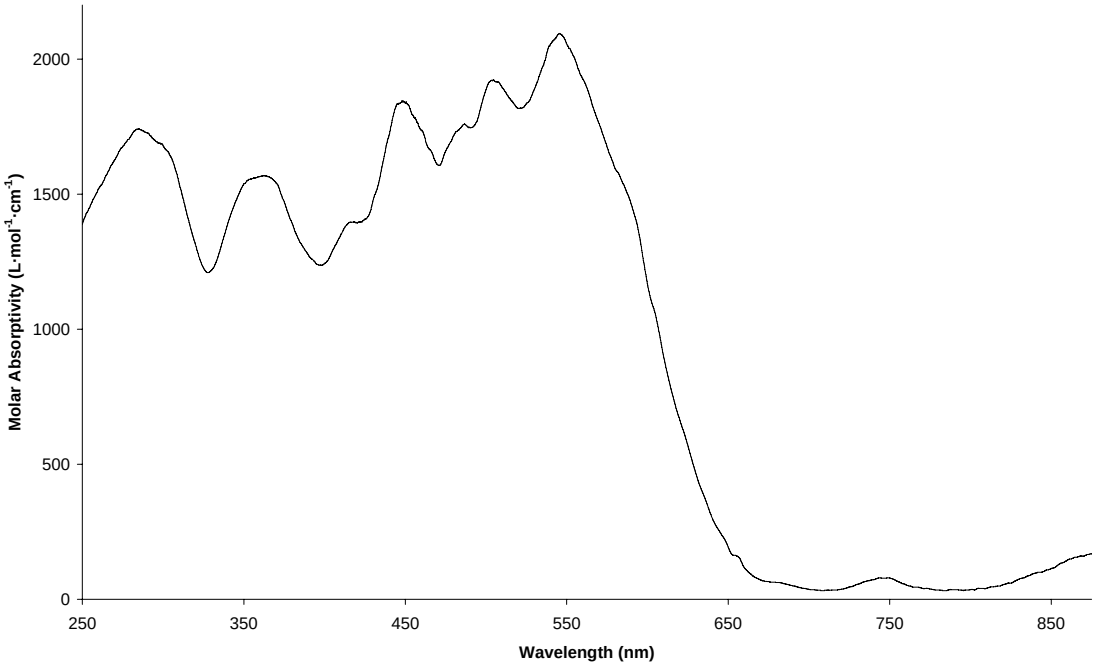

Figure S2. UV/Vis spectrum of **2** in DME (0.87 mM).

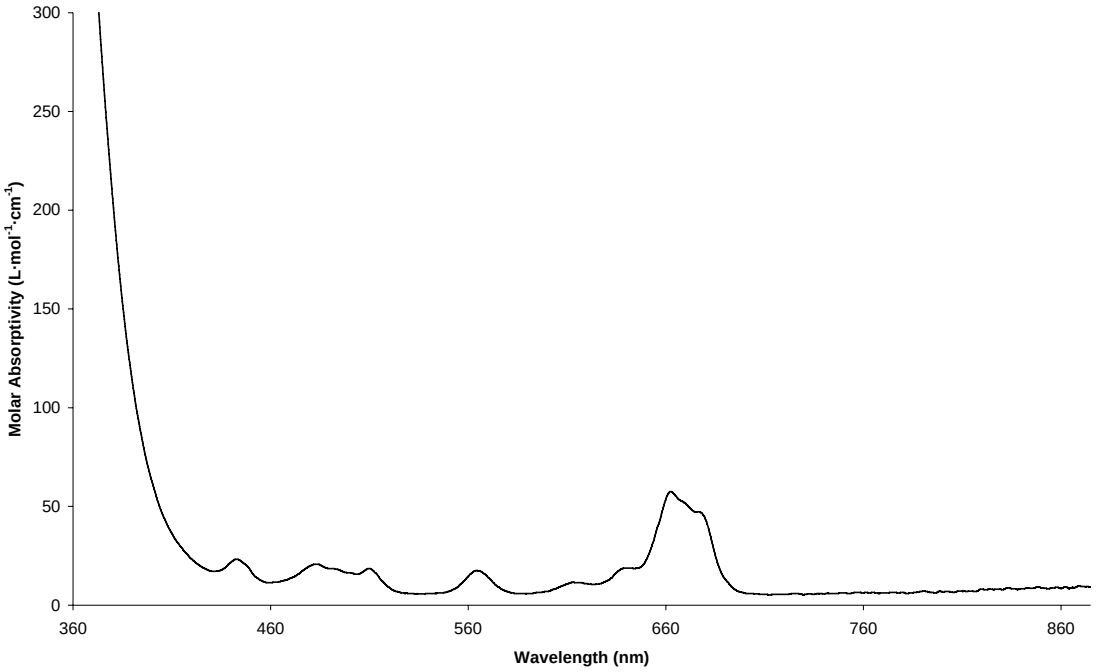

Figure S3. UV/Vis spectrum of **3** in DME (4.2 mM).

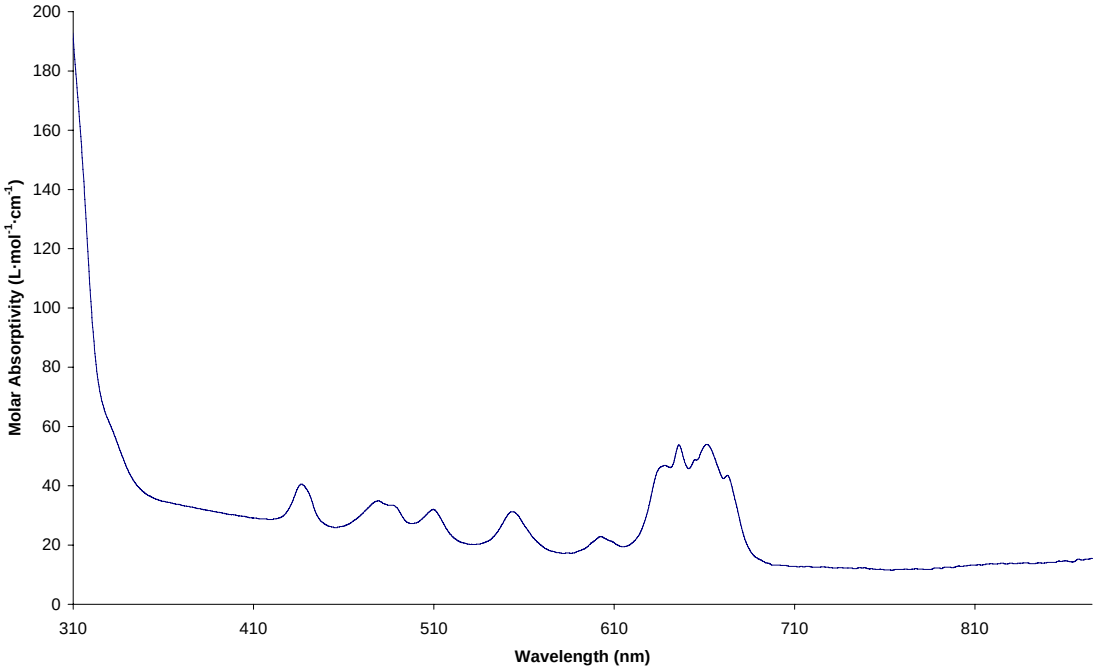

Figure S4. UV/Vis spectrum of **4** in DME (6.6 mM).

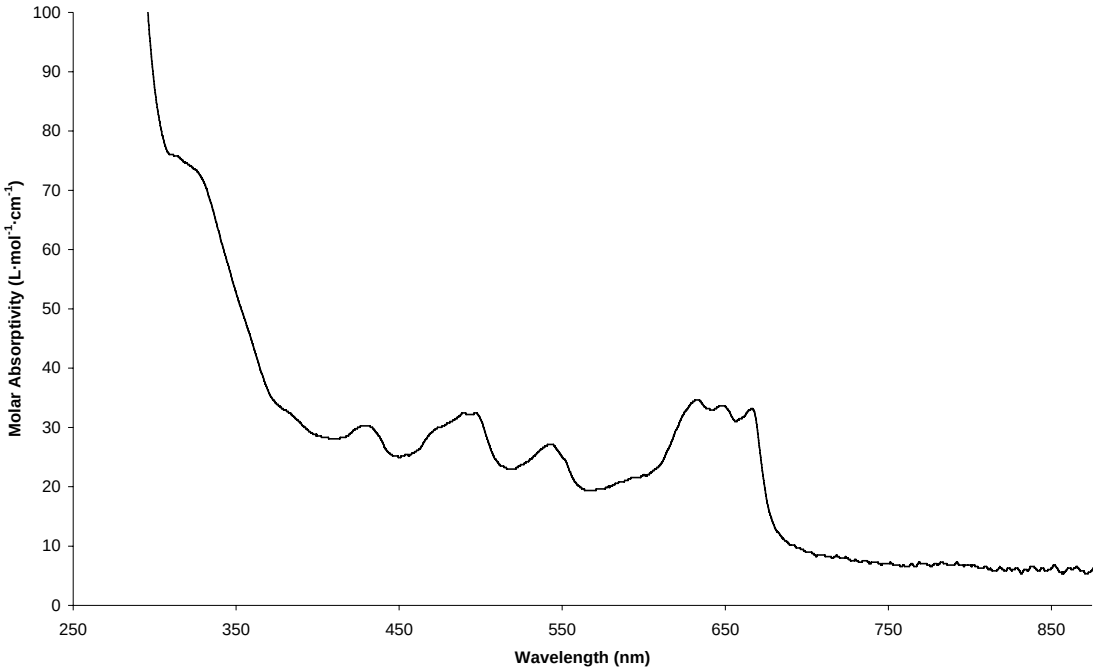

Figure S5. UV/Vis spectrum of **5** in DME (4.1 mM).

X-ray Crystallography.

Further details of the X-ray crystallographic determinations of complexes **1**, **2**·CH_2Cl_2, **3**, **4**, and **5** can be found in the following paragraphs:

For complexes **3** and **4**, as the crystals did not have a regular shape, it would be difficult to determine the individual faces and corresponding center-face distances precisely. Thus, we used empirical absorption correction instead of numeric correction.

For complexes **1**, **3**, **4**, and **5** relatively high Rint values are observed. We attribute this to significant absorption ($\mu > 10mm^{-1}$) due to the presence of heavy atoms. As a result, the empirical absorption correction based on psi-scan may not perfectly correct for the absorption effect.

For complex **4** large maximum and minimum residual electron densities are observed. For instance, the structure has a highest residual peak of 6.63 at 0.2513 0.5946 0.2196 (0.88 Å from U1) and a lowest residual peak -4.51 at 0.2303 0.5513 0.2581 (0.96 Å from U1). Because of their close proximity to the heavy uranium atom they are likely 'ghost peaks'.