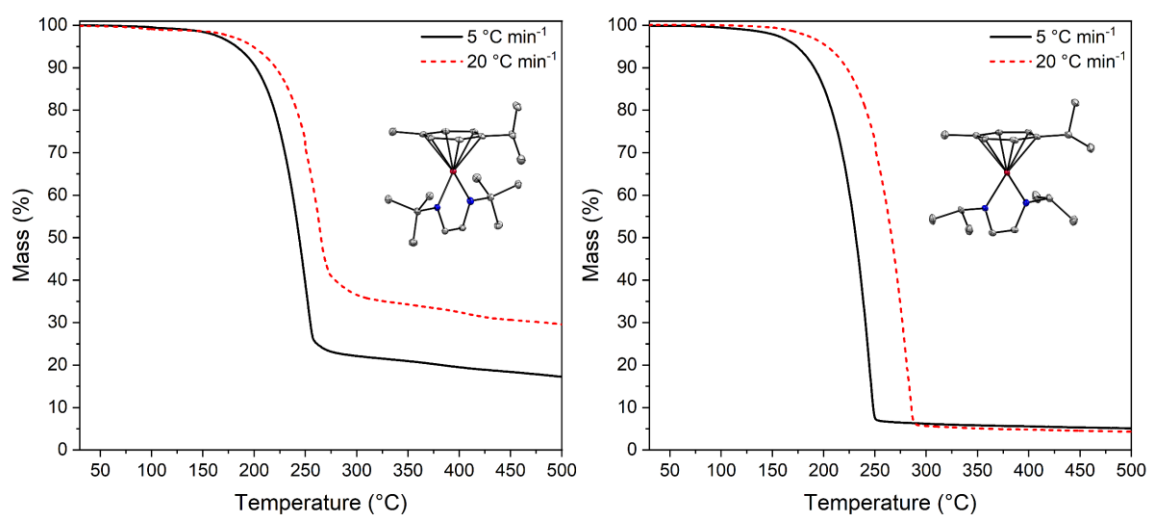
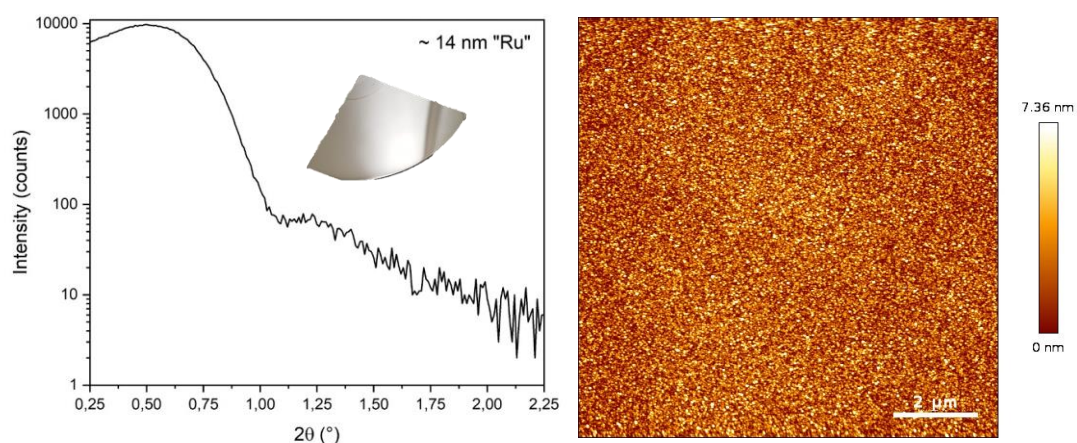


**Figure 1:** Solid-state structures of the two Ru(II) complexes Ru(tBuDAD)(Cym) and Ru(iPrDAD)(Cym) obtained from SC-XRD. Atoms of interest are labelled for clear assignment.



**Figure 2:** Thermogravimetric mass loss trends recorded for 10 mg samples of both Ru(II) precursors at different heating rates illustrating alternating volatilization and decomposition behavior.



**Figure 3:** XRR pattern recorded for a 14 nm thick Ru thin film deposited at 120 °C via PEALD utilizing Ru(iPrDAD)(Cym) as the Ru precursor. An optical image of the thin film is provided as inset. Next to it an AFM micrograph is depicted. On an area of 10 x 10 μm<sup>2</sup> the mean square roughness amounted to 1.3 nm.