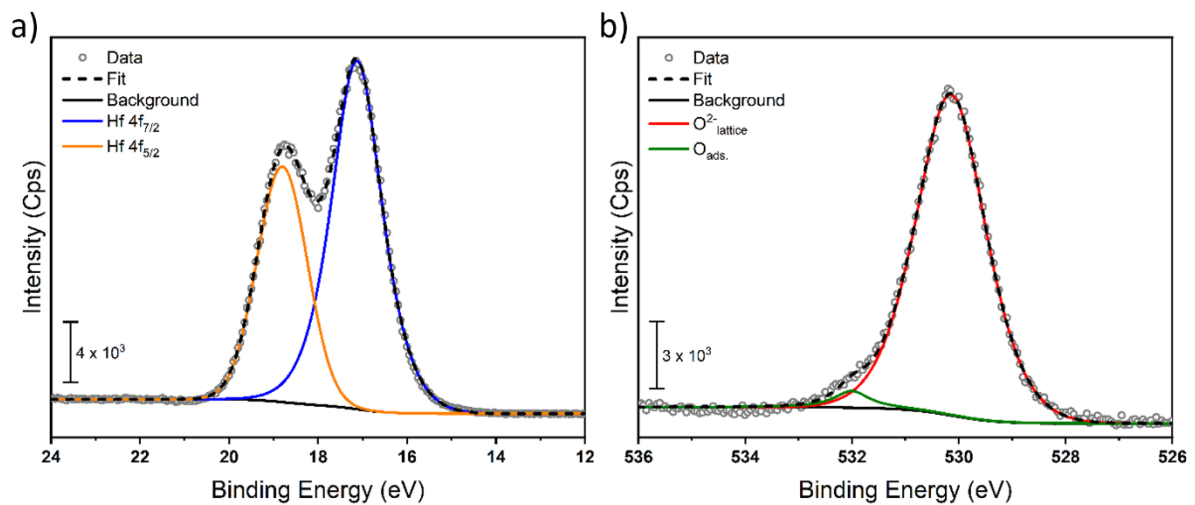
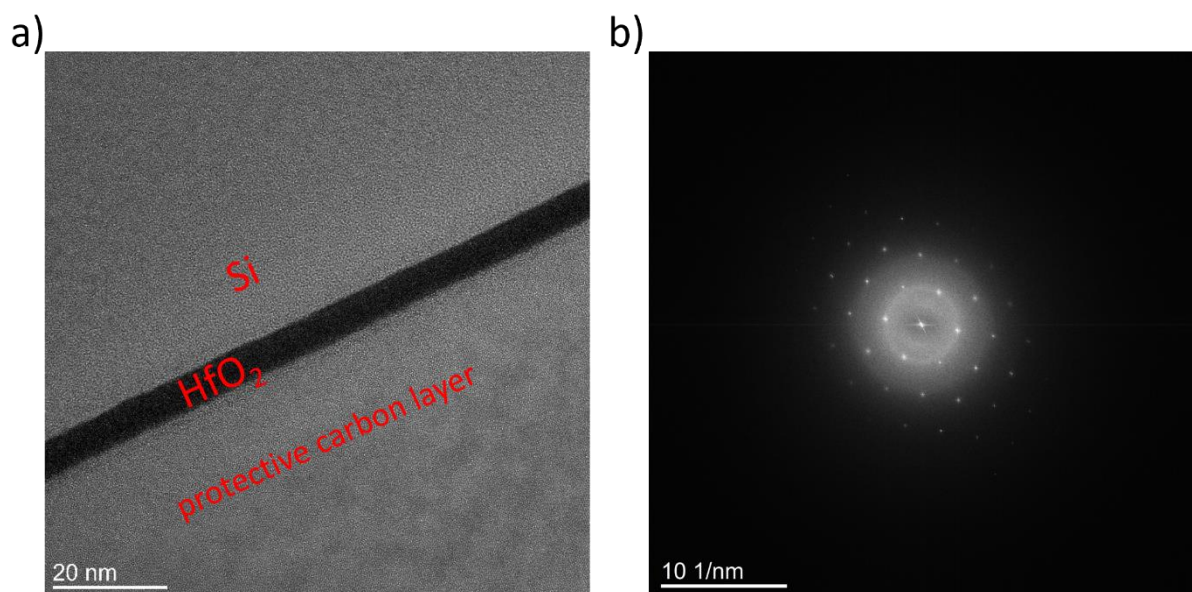


**Figure 1.** ALD characteristics of the PEALD process for  $\text{HfO}_2$  on Si(100) employing the new Hf precursor. a) precursor saturation at 150 °C, b) linearity study and c) temperature dependency of the growth.



**Figure 2.** XPS core level spectra of the as-deposited surface of a 28 nm  $\text{HfO}_2$  thin film grown on Si(100) at 150 °C with 150 ms  $\text{O}_2$  plasma pulse. a) High resolution spectrum of the Hf 4f core level. b) High resolution recording of the O 1s core level.



**Figure 7:** a) HRTEM image of a  $\text{HfO}_2$  layer with a thickness of around 8 nm deposited on Si at 150 °C with a plasma pulse of 150 ms. b) FFT pattern of the  $\text{HfO}_2$  layer.