

References

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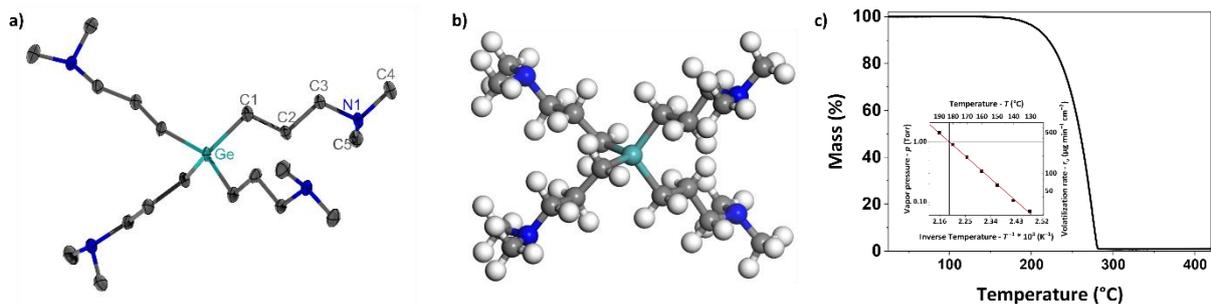


Figure 1. Solid-state structure of [Ge(DMP)₄], as determined by single-crystal XRD (a) and DFT calculations (b). (c) Thermogravimetry (TG) curve of [Ge(DMP)₄] with a Clausius-Clapeyron plot for vapor pressure determination shown as an inset.

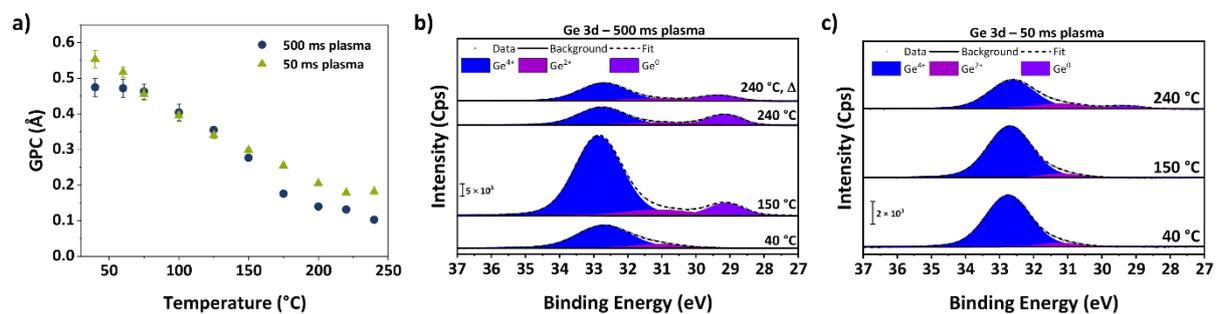


Figure 2. a) Temperature dependency of GeO_x deposited on Si substrates using 500 cycles of a PEALD process with [Ge(DMP)₄] and O₂ plasma pulses of 500 ms (blue circles) and 50 ms (green triangles). XPS Ge 3d core level scans of the resulting thin films with plasma pulse times of b) 500 ms and c) 50 ms.

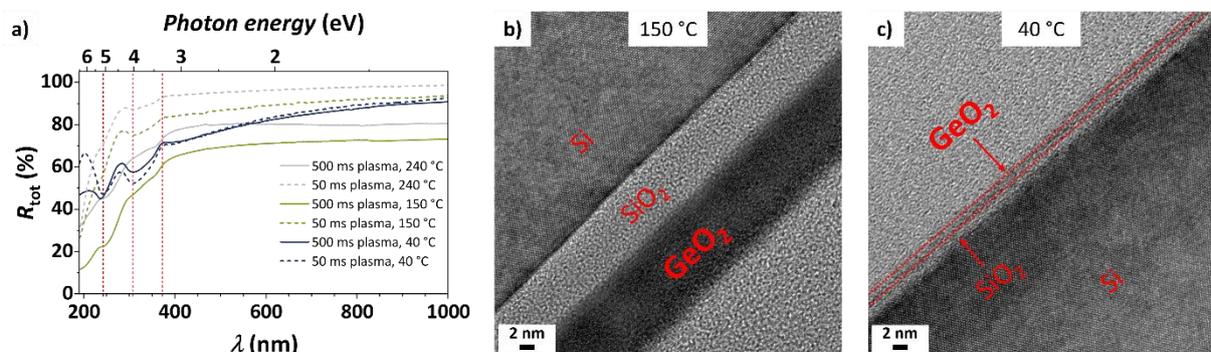


Figure 3. a) UV/Vis spectra of GeO_x thin films deposited using different plasma pulse durations and deposition temperatures. TEM images of GeO_x deposited on Si with native oxide using b) 500 PEALD cycles at 150 °C and c) eight cycles at 40 °C.