

Fig 1 RBS-calibrated in situ XRF growth curves for Photo-ALD vs. thermal ALD of Pt at 200°C on O₃-cleaned SiO₂ substrates. The ex situ XRR thickness values measured after 120 ALD cycles are indicated. The horizontal dotted lines represent the Pt loading for which GI-SAXS data are presented in Figure 3.



Fig 2 RBS-calibrated in situ XRF growth curves showing the effect of *x* cycles of Photo-ALD followed by thermal ALD up to a total of 120 cycles. The depositions were done at 175° C on O₃-cleaned SiO₂ substrates.



Fig 3 In situ GISAXS patterns corresponding to, from left to right, Pt loadings of ca. 4×10^{15} at/cm², 8×10^{15} at/cm², 13×10^{15} at/cm² and 17×10^{15} at/cm², as obtained from the in-situ XRF data in Figure 1. The ALD cycle number at which this Pt loading is obtained is indicated. The schematics represent the morphological parameters obtained from GISAXS simulations.

Fig 4 SEM images of samples with a Pt loading of ca. 9 x 10¹⁵ at/cm² grown with Photo-ALD vs. thermal ALD at 175°C.