

Fig. 1. Evolution of the integrated QD photoluminescence with exposure to (a) 5 pulses of trimethylaluminum (TMA) and (b) 250 cycles of Al_2O_3 ALD.

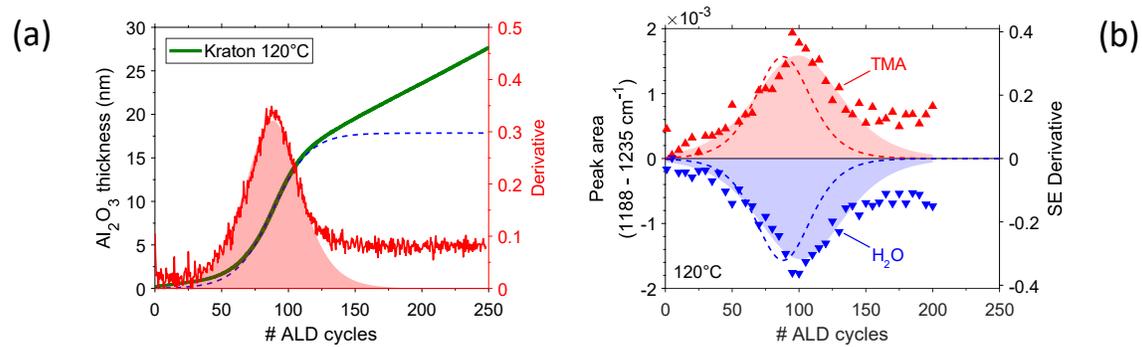


Fig. 2. (a) Growth curve of Al_2O_3 ALD on a Kraton polymer thin film as measured by spectroscopic ellipsometry. (b) Fourier transform infrared spectroscopy peak analysis indicating island growth as the dominant growth mode, related to the copolymer structure of Kraton.

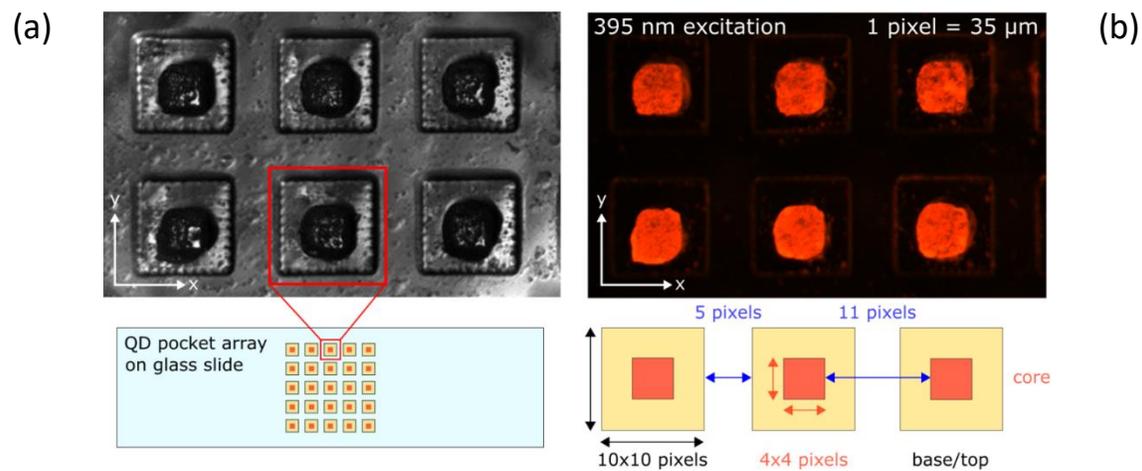


Fig. 3. (a) Stereomicroscope image showing a section of the 400 QD pocket array deposited on a glass slide. (b) Excitation of the QDs embedded in the QD pockets. The QD emission is clearly confined to the core layer. The illustration at the bottom indicates the dimensions of the QD pockets and their spacing.