Figure 1: Normalized SMI coverage profile (blue) and the deposited film thickness (red) after 15 cycles of an area-selective ALD process as a function of depth/height of a trench structure, obtained from the model. The SMI coverage was calculated using a reaction-diffusion model and an Avrami model was used to calculate the film thickness at each point inside the trench structure.
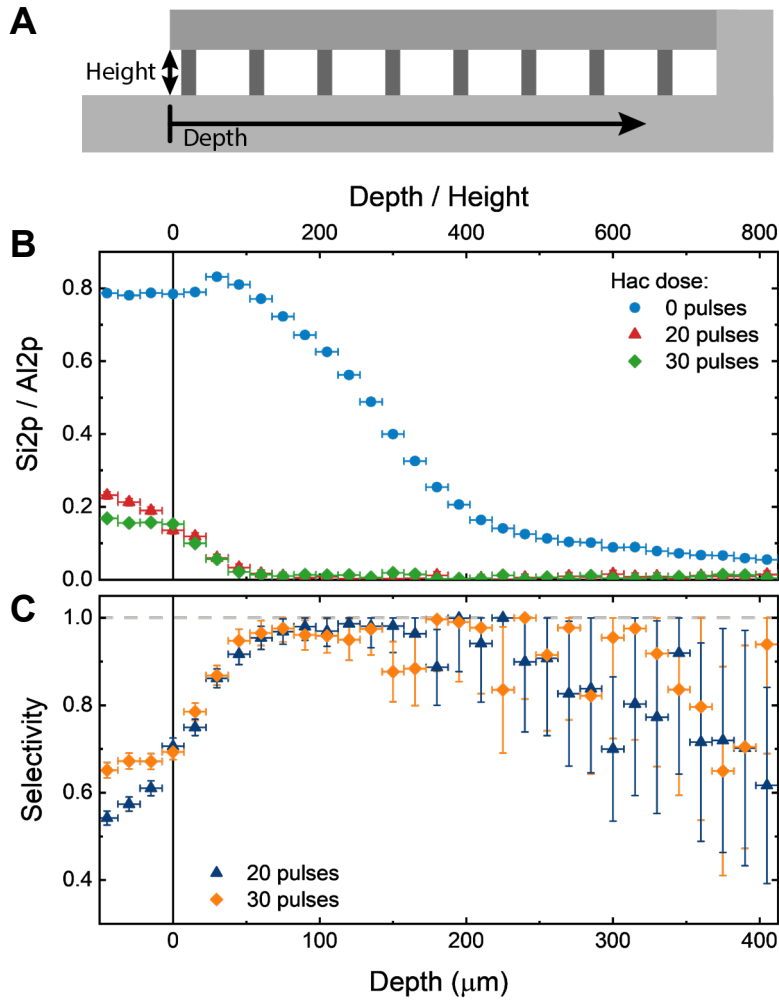

Figure 2: (A) Schematic cross-section of the lateral trench structure (Arts et al., JVSTA. 2019). (B) The amount of deposited SiO_2 as a function of the depth, plotted as the ratio between the oxide components of the Si and Al 2p peak areas measured using X-ray photoelectron spectroscopy with a spot size of 15 μm, for 15 cycles of SiO_2 deposition using no SMI, 20 Hac pulses per cycle or 30 Hac pulses per cycle as a function of depth inside a PillarHall lateral trench. (C) The selectivity of the depositions with inhibitor dosing calculated using $(A_0 - A_i)/(A_0 + A_i)$ with A being the ratio between the SiO_2 and Al_2O_3 2p peak areas, and i being either 20 or 30 Hac pulses per cycle.