

Figure 1: (a) Comparison of the Hankel transforms of the GISAXS intensity profiles for 2D and island topographies. The island topography is seen to exhibit a negative-valued intensity valley and a secondary intensity peak, which are related to the depletion region and island center-to-center distance, respectively, of the average island. (b) Evolution of the Hankel transformed GISAXS intensity profile with number of growth cycles for epitaxial InN PEALD in which the plasma exhibited a low concentration of atomic N compared to the other plasma regimes. The dashed line indicates the transition from 2D to island topography, as evidenced by the appearance of the negative-valued intensity valley.

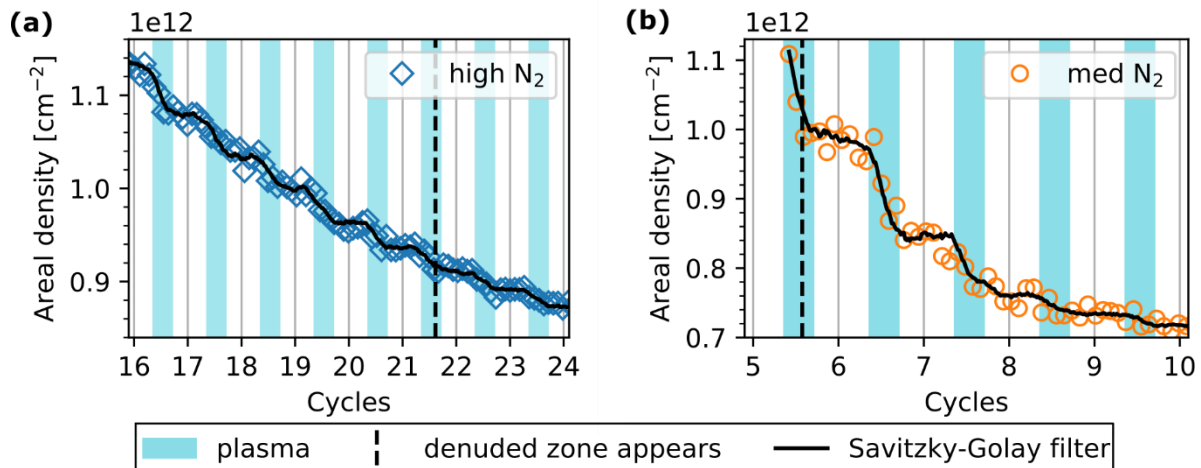


Figure 2: Evolution of island areal density for growth under conditions of (a) high and (b) medium relative concentrations of N₂ within the N₂/Ar plasma gas mixture, which correspond to the production of low and high concentrations of atomic N by the inductively coupled plasma source, respectively. Within individual growth cycles, the island areal density is observed to change only during plasma exposure, regardless of plasma regime