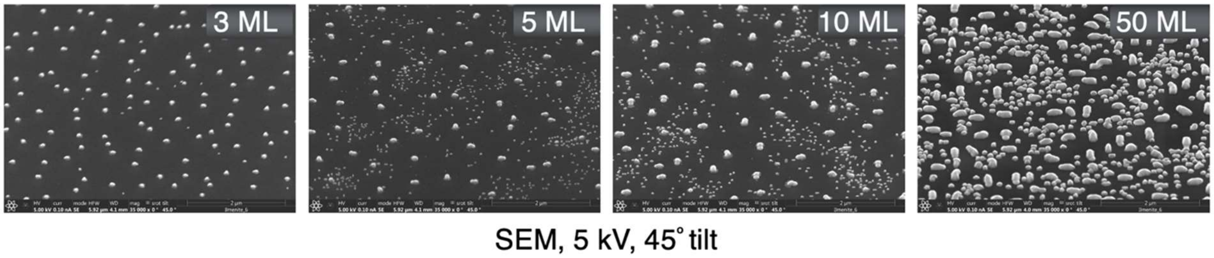

Fig. 1: SEM image of 3 – 50 MLs of GaSb grown directly on Silicon substrates.

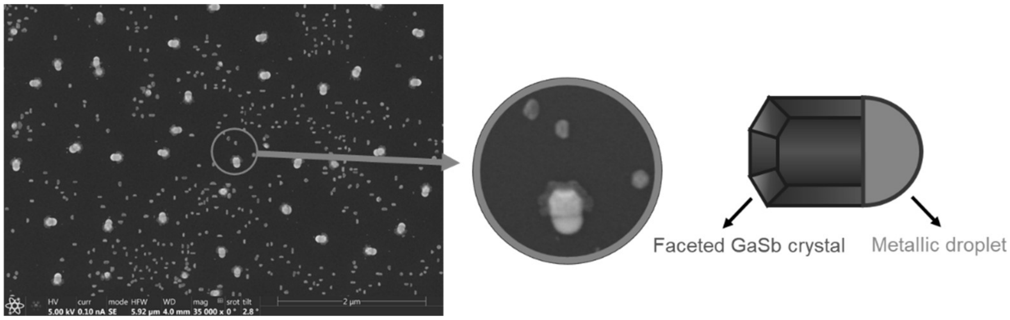

Fig. 2: Islands with two unique growth modes observed. The larger islands are Ga droplet catalyzed VLS grown and smaller islands are epitaxially realized.

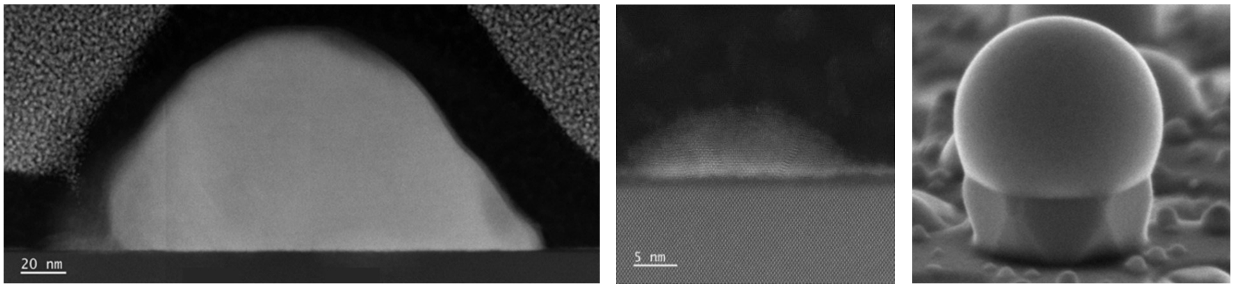

Fig. 3: High resolution cross-section TEM image of the VLS grown island (left) and the strained quantum dot size island (center) and controlling the size of the VLS island using selective area growth (right).

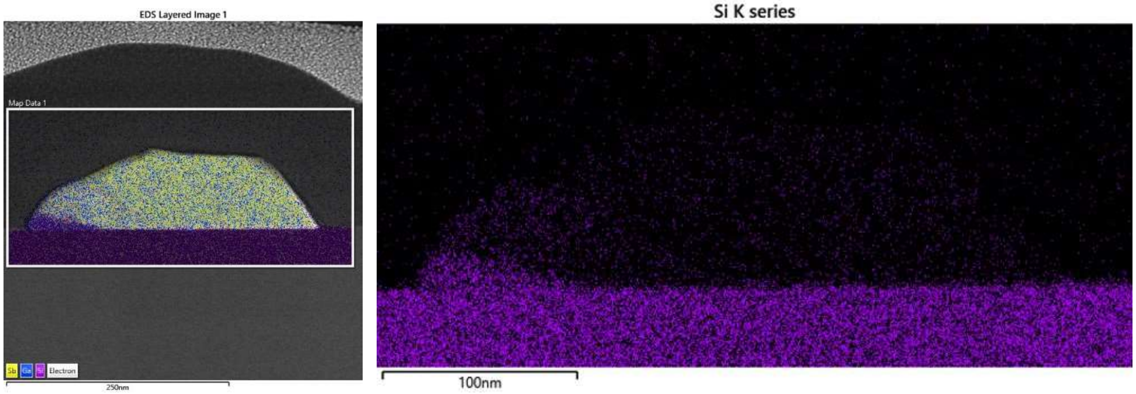

Fig. 3: Energy dispersive x-ray spectroscopy (EDS) analysis of a cross-section of a VLS-catalyzed GaSb island. The image on the left shows the layered elemental analyses, and the image on the right shows the Silicon elemental analysis. This shows Silicon present above the substrate interface, in the metallic droplet.