

Supplemental Material for

Growth of InAs Nanowires on SiO₂ Substrates:

Nucleation, Evolution and Role of Au

Nanoparticles

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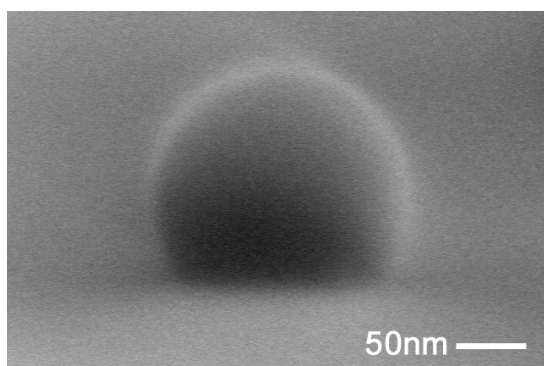


Figure S1: Cross-sectional FE-SEM image of Au-In droplet taken at an angle view of 85° showing smooth spherical curvature.

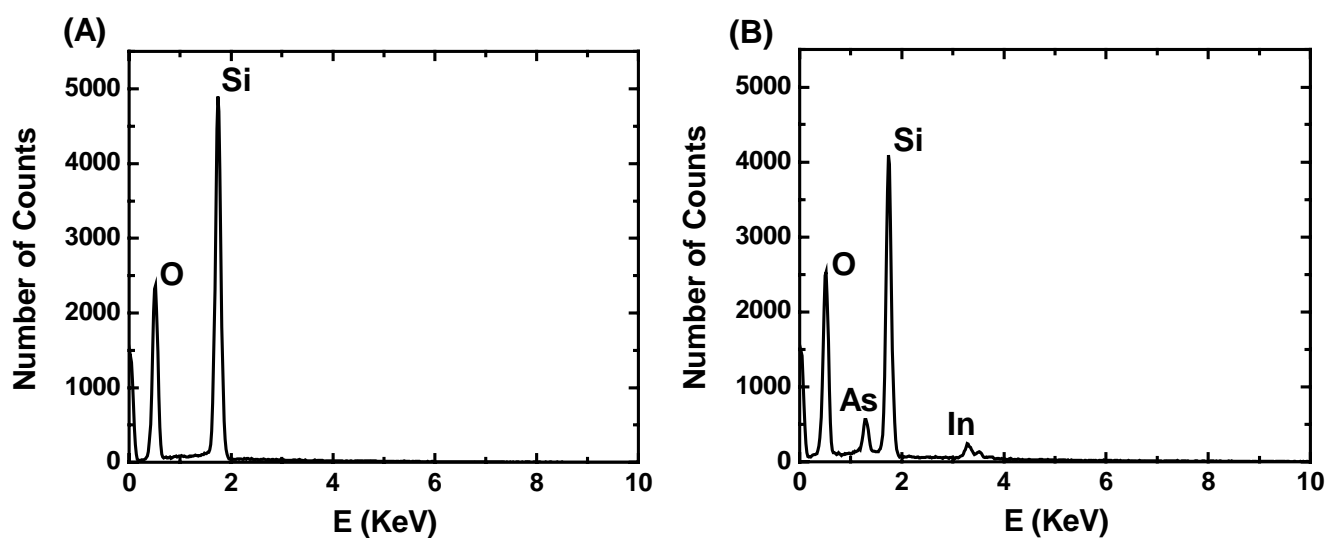


Figure S2: (A) EDX spectrum obtained near a bright dot of Figure 1(C) of experiment II showing only Si and O peaks. (B) EDX spectrum obtained from a bright dot of Figure 1(C) of experiment II showing In and As peaks in addition to the Si and O peaks.

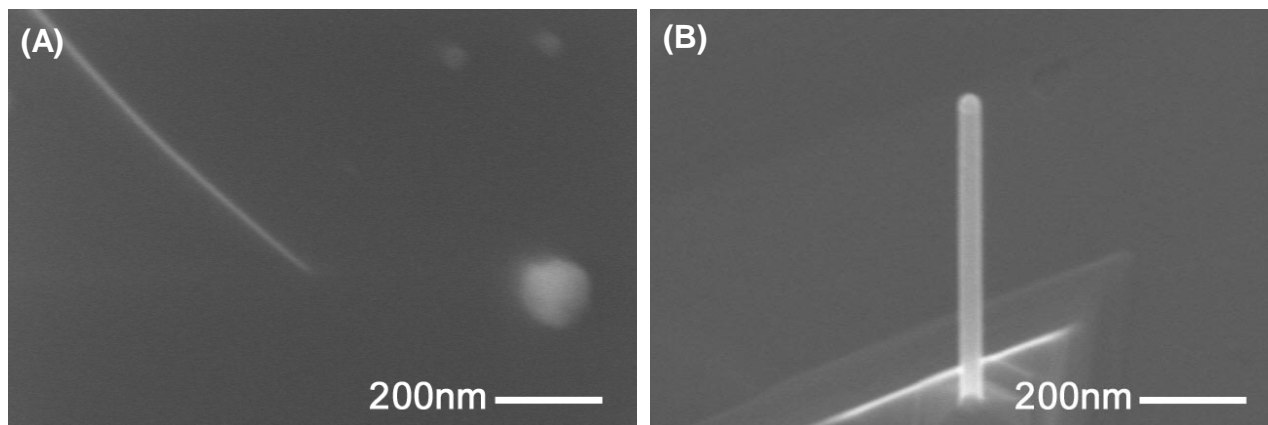


Figure S3: FE-SEM images of InAs NWs grown on (A) SiO_2 substrate showing no Au nanoparticle at their tip and (B) on InAs(111)B substrate showing Au nanoparticle at the NW tip. In Both cases, 40nm diameter Au nanoparticles were present on the substrate surface prior to growth.

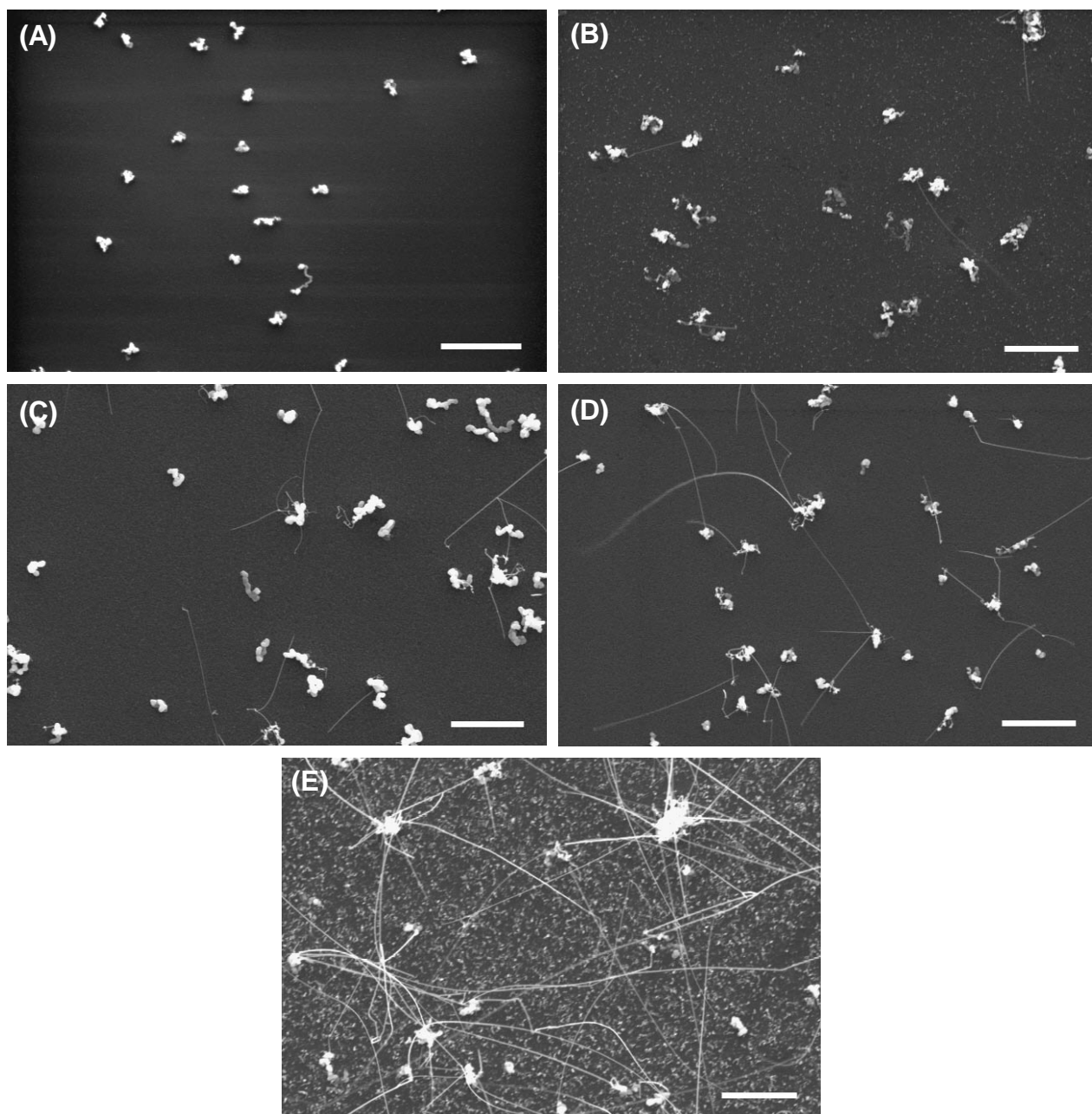


Figure S4: FE-SEM images of InAs island and nanowire growth at 350°C and $V/III=12.5$ for (A) 2min, (B) 3min, (C) 4min, (D) 6min, and (E) 10min. Scale bars are 2 μ m.