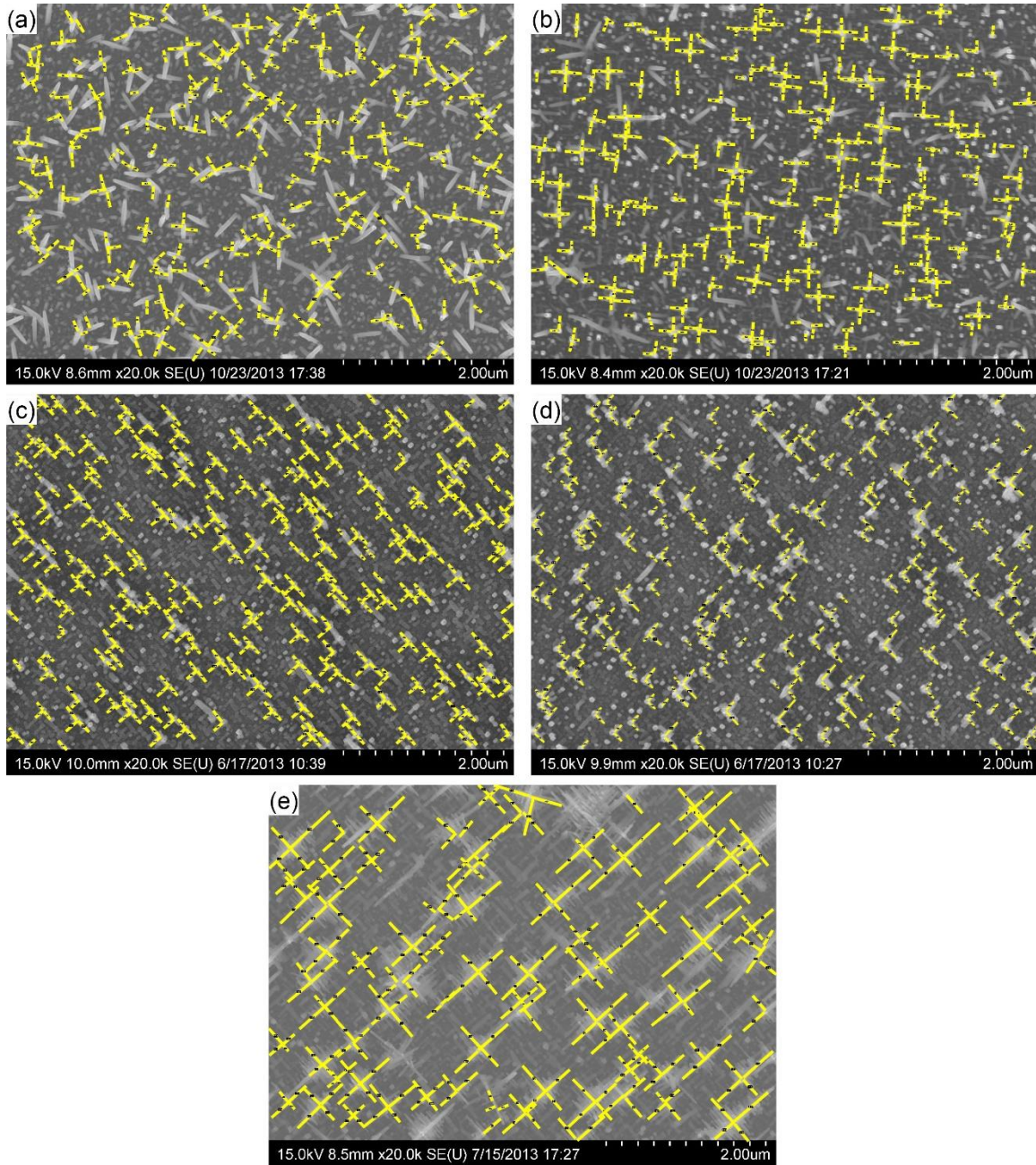
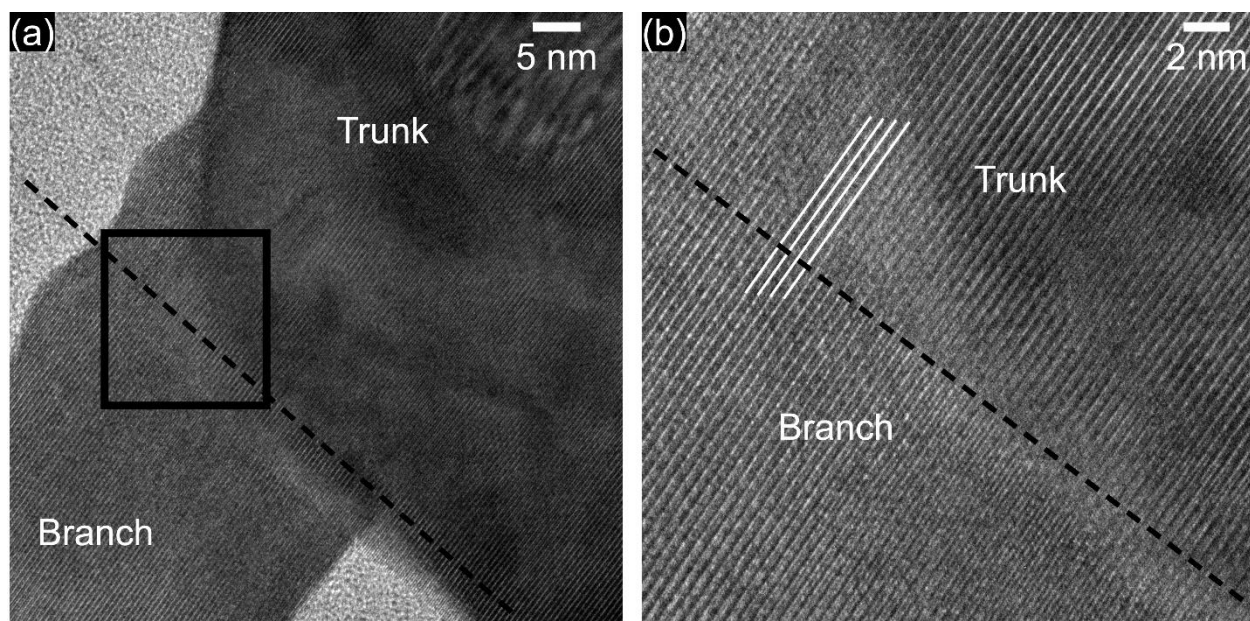


Supplementary Information



Supp Fig 1: One fifth of total branch orientation and length measurements for each of (a) ϕ continuously rotated on Si, and (b) ϕ continuously rotated, (c) $\phi = 0^\circ$, (d) $\phi = 45^\circ$, and (e) serial bi-deposition on YSZ. All films grown at $\alpha = 85^\circ$, 1 nm/s, and 300 $^\circ\text{C}$.



Supp Fig 2: HRTEM image of branch-trunk interface on an ITO nanotree. Region in (b) is imaged from black square in (a). Dashed black line indicates branch-trunk interface. While lines in (b) show continuous lattice planes from trunk into branch.