

**S9 Fig.** Uniform Pt NPs on sapphire (0001) by the systematic control of annealing temperature from 700 to 850 °C for 450 s. The total bilayer thickness was of 6 nm with the In4.5 nm/Pt1.5 nm bilayer. (a) – (d) AFM side-views (1 × 1 µm2). (a-1) – (d-1) Cross-sectional line profiles.