Electronic supplementary information for

Synthesis and structural evolution of Pt nanotubular skeletons: revealing the source of instability for nanostructured electrocatalysts

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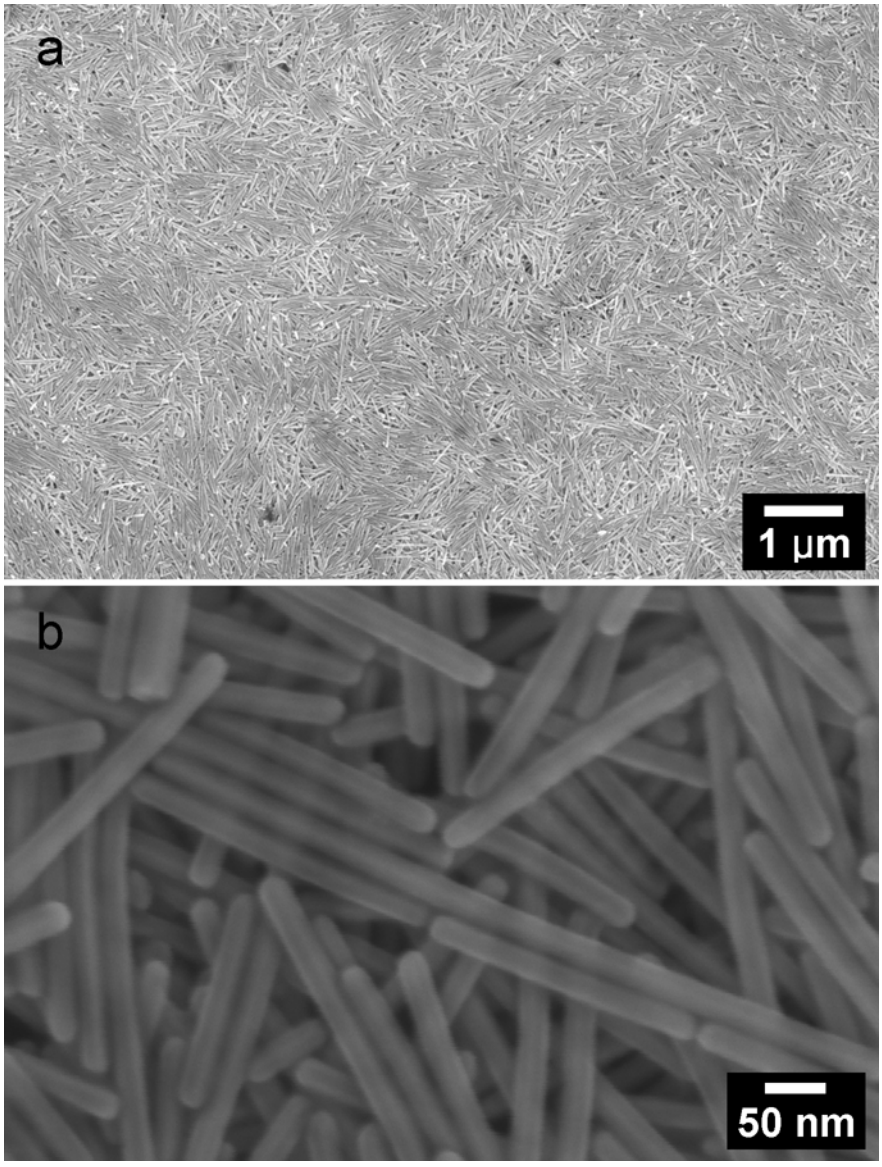

Figure S1. SEM images of Pd nanowires. a) Low magnification. b) High magnification.

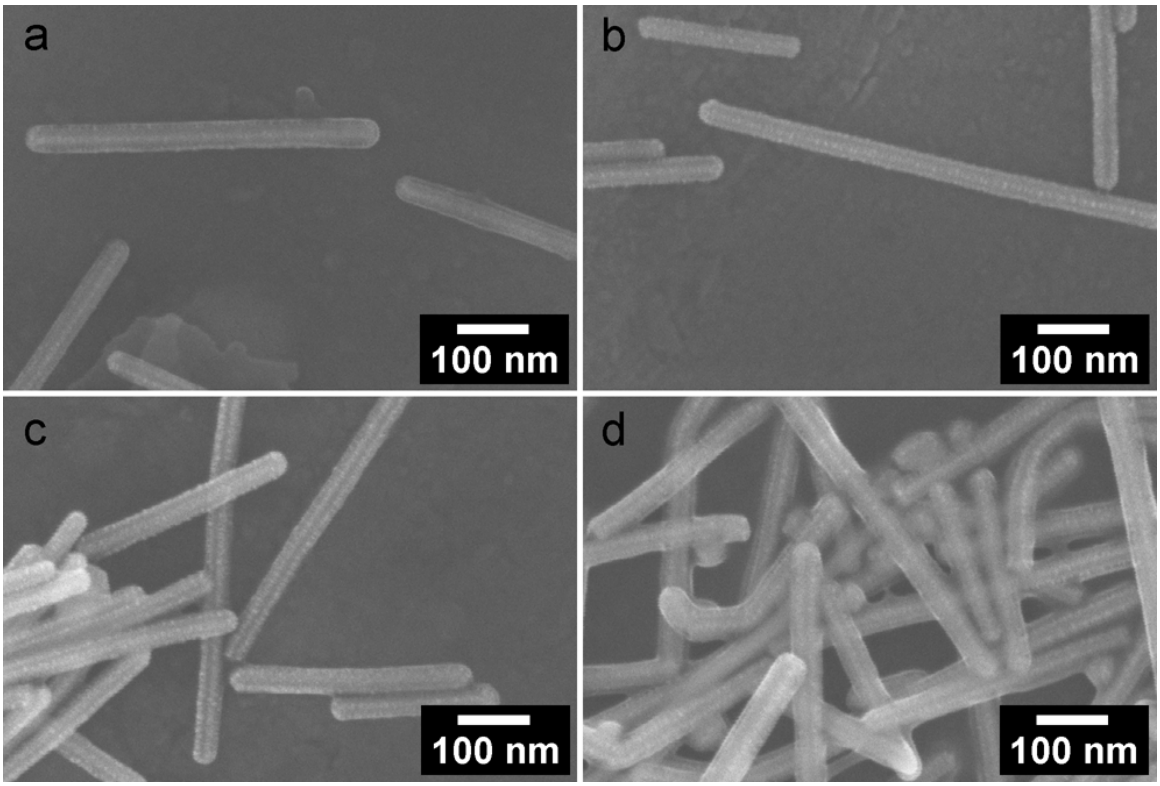

Figure S2. SEM images of Pt coated Pd nanowires with different Pt loadings. a) 5 mg K_2PtCl_4. b) 10 mg K_2PtCl_4. c) 20 mg K_2PtCl_4. d) 30 mg K_2PtCl_4.

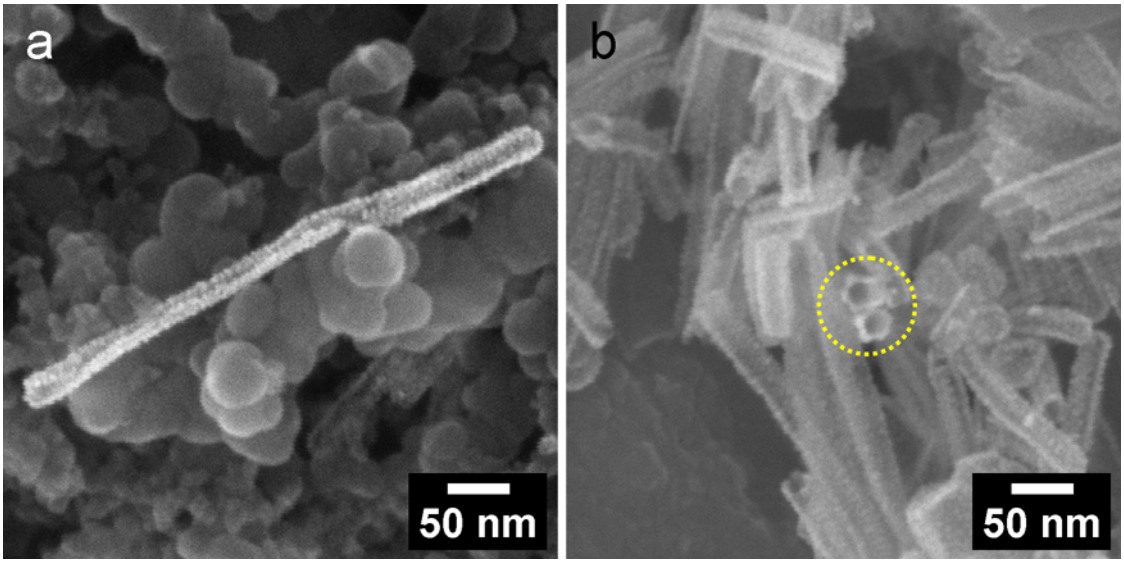

Figure S3. SEM images of Pt nanotubes with different Pt loadings. a) 10 mg K_2PtCl_4 nanotubes mixed with carbon black. b) 20 mg K_2PtCl_4 nanotubes. The cross sections of two broken nanotubes are highlighted by the dashed yellow circle in b.

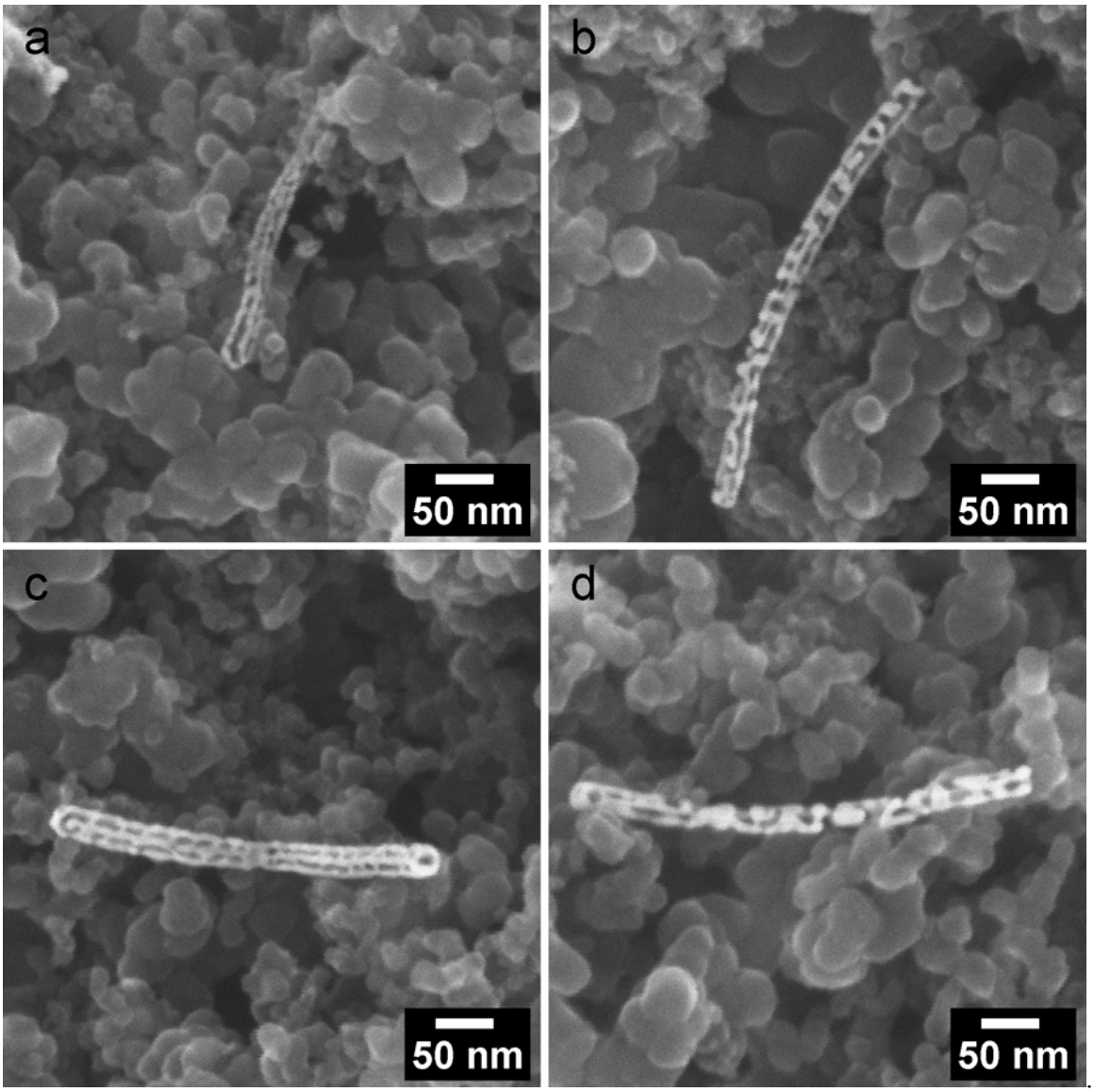

Figure S4. SEM images of Pt nanotubular nanoskeletons obtained by annealing Pt nanotubes at 250 °C for 20 min. a) 5 mg K_2PtCl_4. b) 10 mg K_2PtCl_4. c) 20 mg K_2PtCl_4. d) 30 mg K_2PtCl_4.

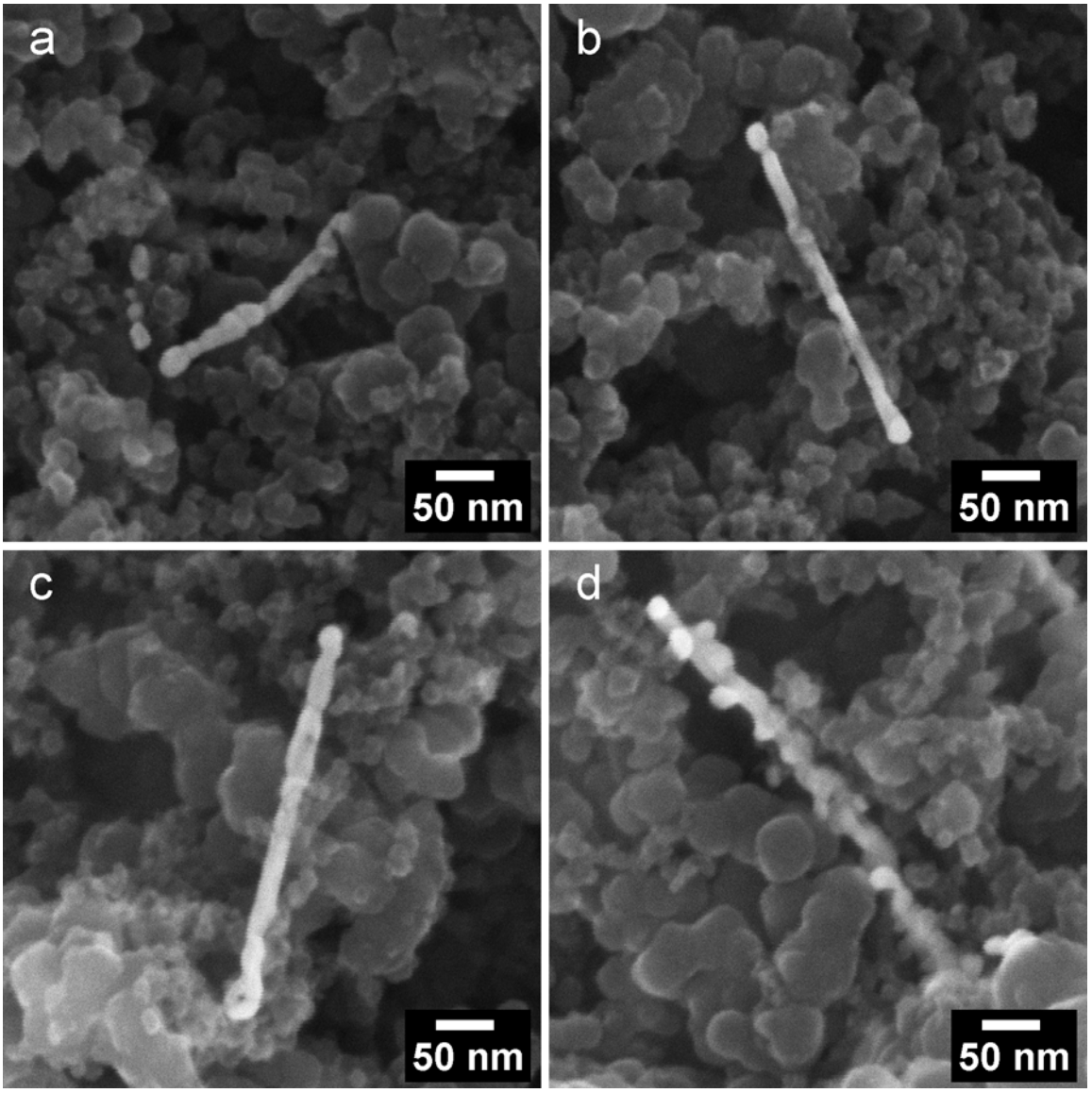

Figure S5. SEM images of Pt nanowires obtained by annealing Pt nanotubes at 300 °C for 20 min. a) 5 mg K_2PtCl_4. b) 10 mg K_2PtCl_4. c) 20 mg K_2PtCl_4. d) 30 mg K_2PtCl_4.