

Supplementary Information

Nonsurfactant Synthesis of PbS Crystals via Electrodeposition and Hydrothermal Methods: from Octahedron to Maya-pyramid

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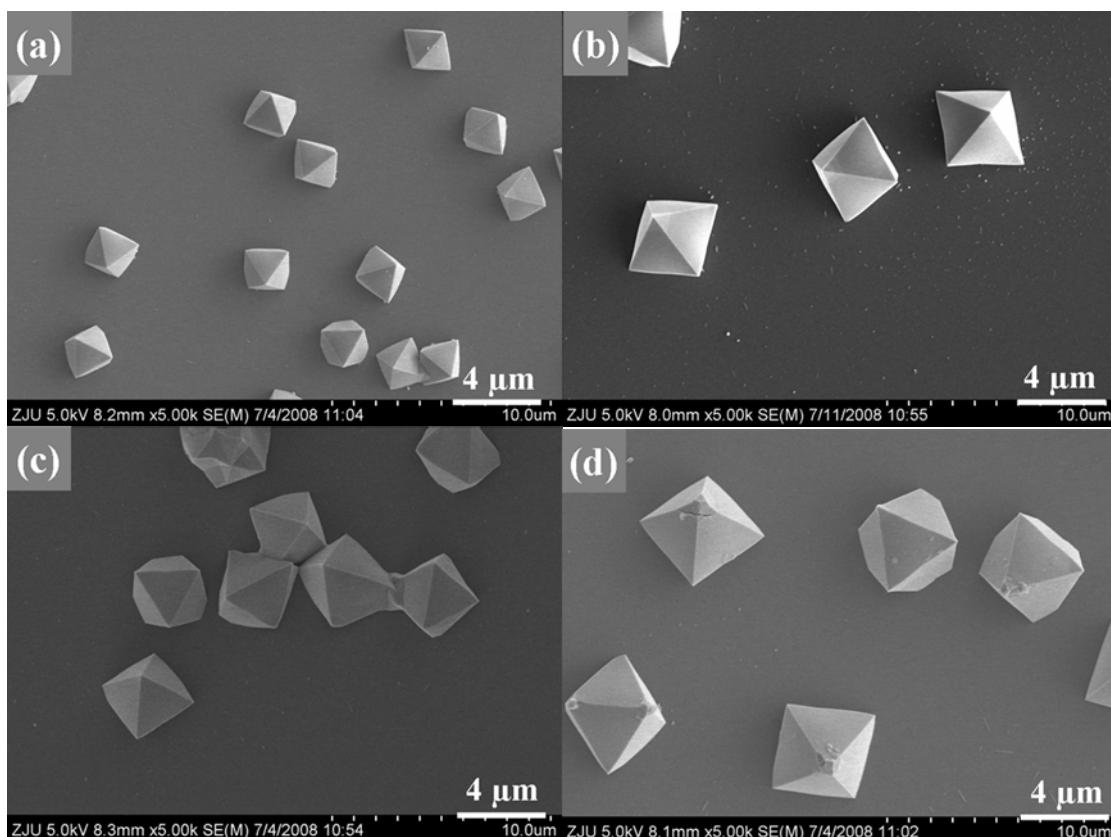


Figure S1. FESEM images of octahedra PbS microcrystals at different reaction times of 300s (a), 600s (b), 900s (c), and 1200s (d) while keeping other conditions constant : 0.05 M PbCl₂ and 0.02 M S; 0.4 mA/cm² under 110 °C.

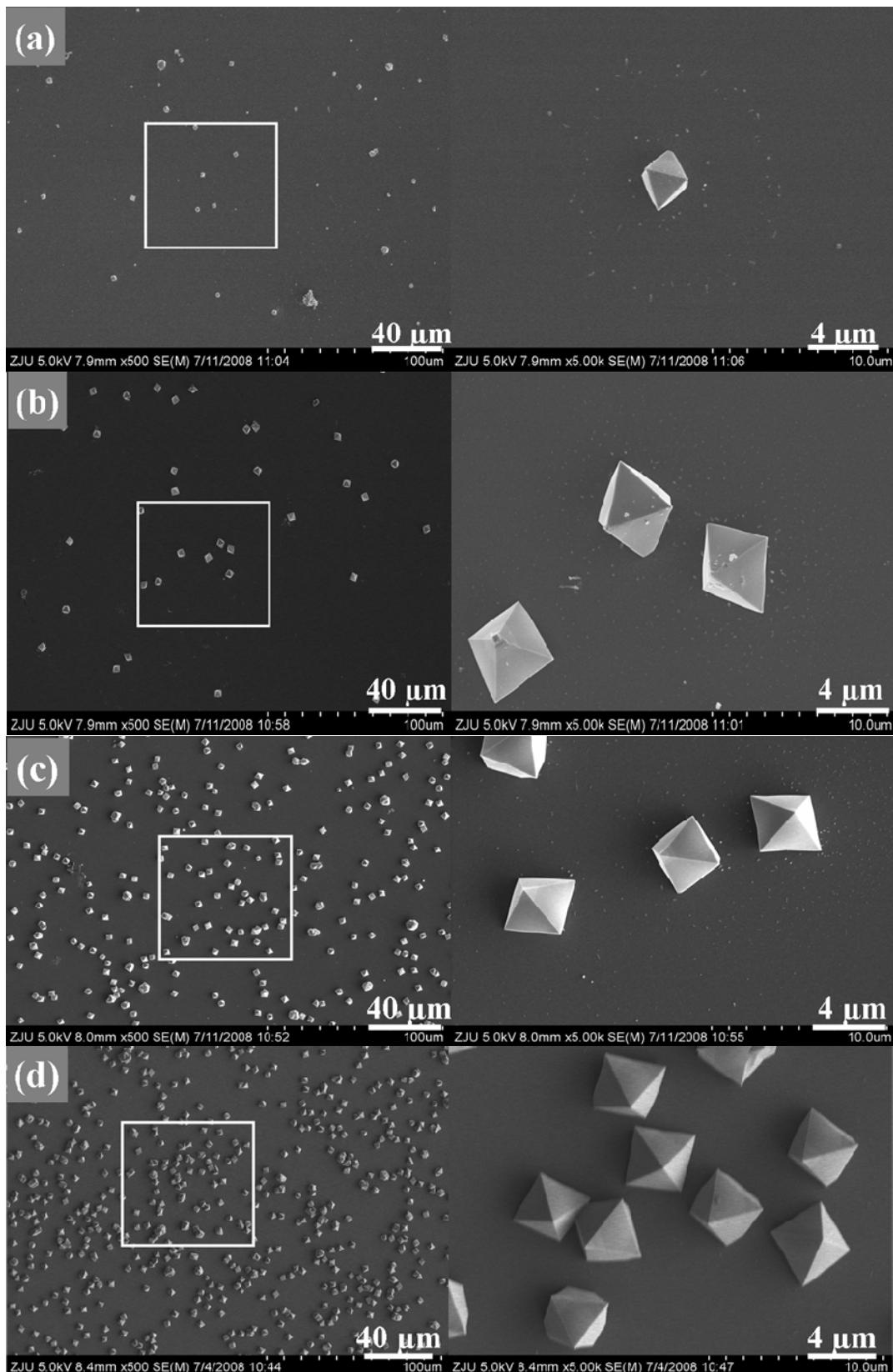


Figure S2. FESEM images of octahedra PbS microcrystals at different currents of

0.01 mA (a), 0.05 mA (b), 0.1 mA (c), and 0.2 mA (d). The left is the low magnitude image, and the right is the corresponding high magnitude image while keeping other conditions constant: 0.05 M PbCl₂ and 0.02 M S; 900 s under 110 °C.

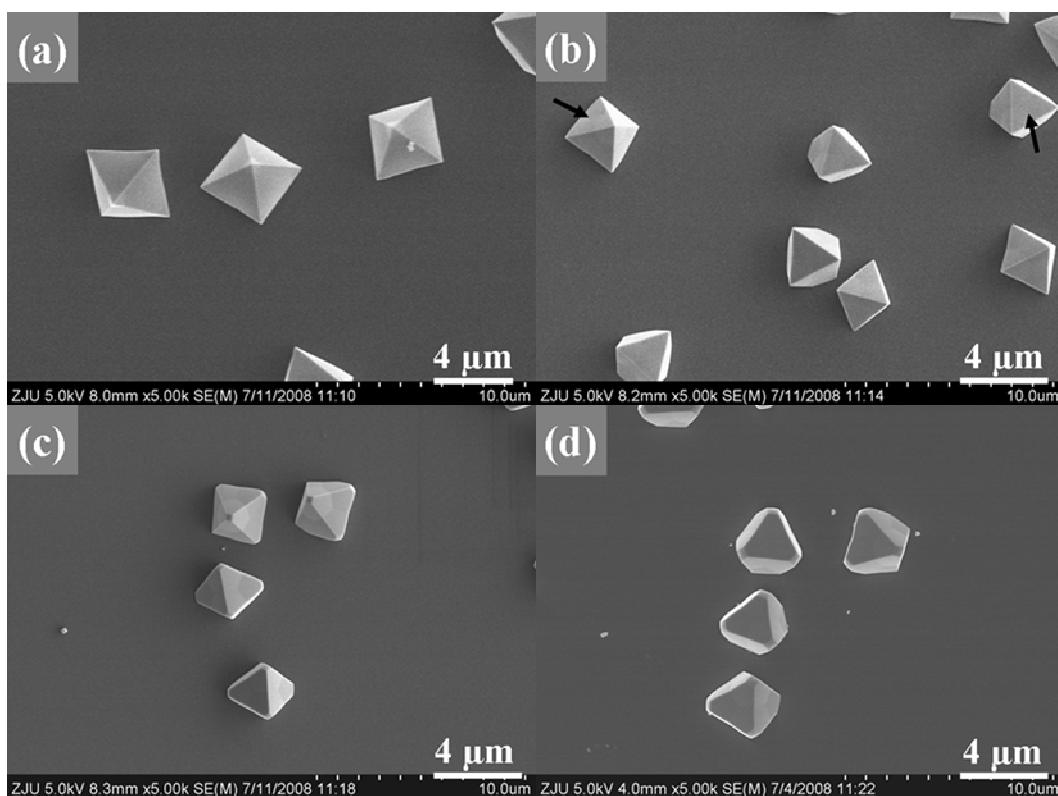


Figure S3. FESEM images of PbS microcrystals electrodeposited from different precursors' concentrations: (a) 0.05 M PbCl₂ and 0.02 M S; (b) 0.1 M PbCl₂ and 0.04 M S; (c) 0.15 M PbCl₂ and 0.06 M S; and (d) 0.2 M PbCl₂ and 0.08M S, while keeping other conditions constant: 0.2 mA/cm², 900 s under 110 °C.