Supporting Information

Morphology Evolution Route of PbS Crystals via Environment-Friendly Electrochemical Deposition

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**Figure S1.** Typical low magnification SEM images showing the uniformity of PbS crystals with different shapes: (a) octahedral; (b) star-shaped; (c) cubic. The PbCl$_2$ concentrations for the electrodeposition of octahedral, star-shaped, and cubic PbS crystals are 0.027 g, 0.022 g, and 0.010 g, respectively.

**Figure S2.** Low and high magnification SEM images of PbS crystals with Pb(NO$_3$)$_3$ as the Pb source.

**Figure S3.** Low and high magnification SEM images of PbS crystals electrodeposited under the identical conditions for Figure 3c with longer deposition time of 200 s.