

Supporting Information

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

Weiming Qiu¹, Mingsheng Xu¹, Fei Chen², Xi Yang¹, Yaxiong Nan¹ and Hongzheng Chen^{1*}

¹State Key Lab of Silicon Materials, MOE Key Laboratory of Macromolecule Synthesis and Functionalization, & Department of Polymer Science and Engineering, Zhejiang University, Hangzhou 310027, P. R. China

²Laboratory of Polymer Materials and Engineering, Ningbo Institute of Technology, Zhejiang University, Ningbo 315100, P. R. China

* To whom correspondence should be addressed. E-mail: hzchen@zju.edu.cn.

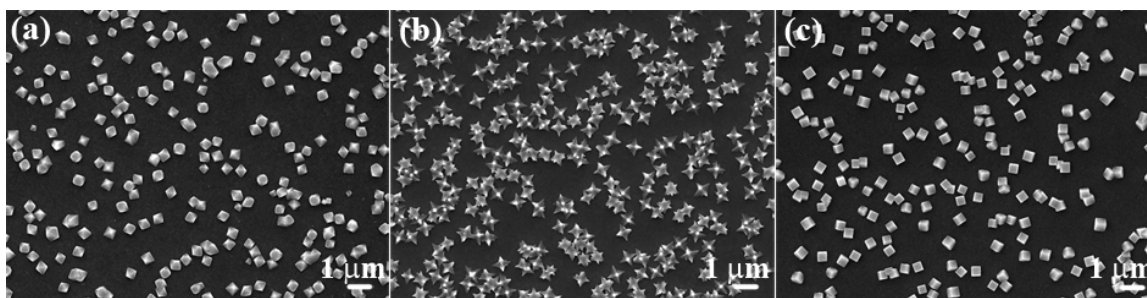


Figure S1. Typical low magnification SEM images showing the uniformity of PbS crystals with different shapes: (a) octahedral; (b) star-shaped; (c) cubic. The PbCl_2 concentrations for the electrodeposition of octahedral, star-shaped, and cubic PbS crystals are 0.027 g, 0.022 g, and 0.010 g, respectively.

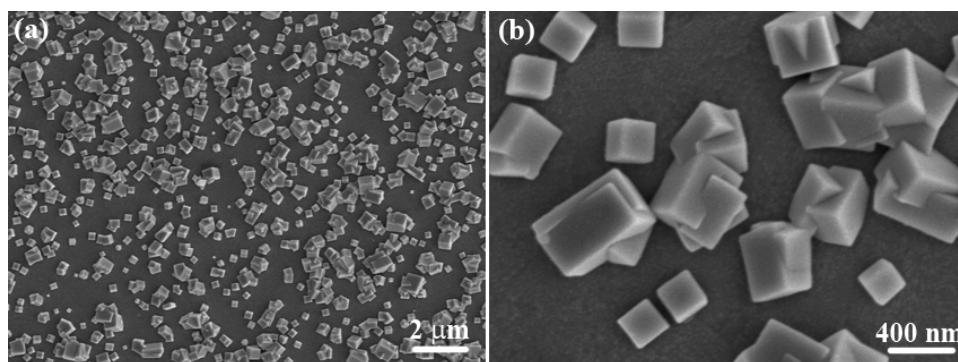


Figure S2. Low and high magnification SEM images of PbS crystals with $\text{Pb}(\text{NO}_3)_3$ as the Pb source.

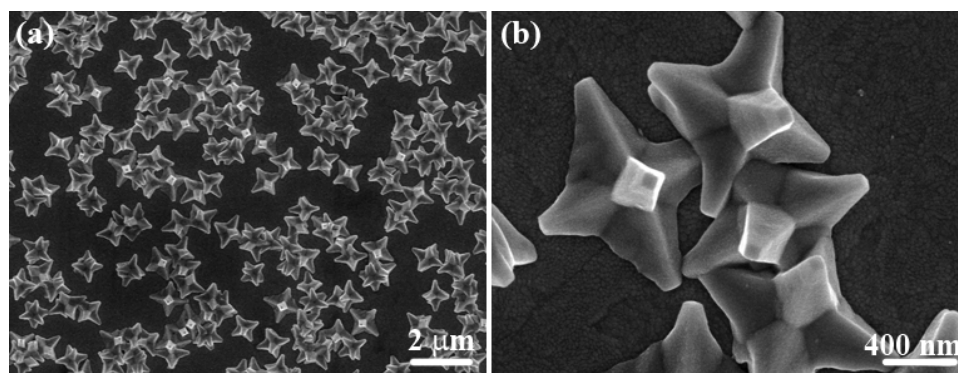


Figure S3. Low and high magnification SEM images of PbS crystals electrodeposited under the identical conditions for Figure 3c with longer deposition time of 200 s.