

## Electronic Supplementary Information for

# Highly Crystalline Fe<sub>2</sub>GeS<sub>4</sub> Nanocrystals: Green Synthesis and Their Structural and Optical Characterization

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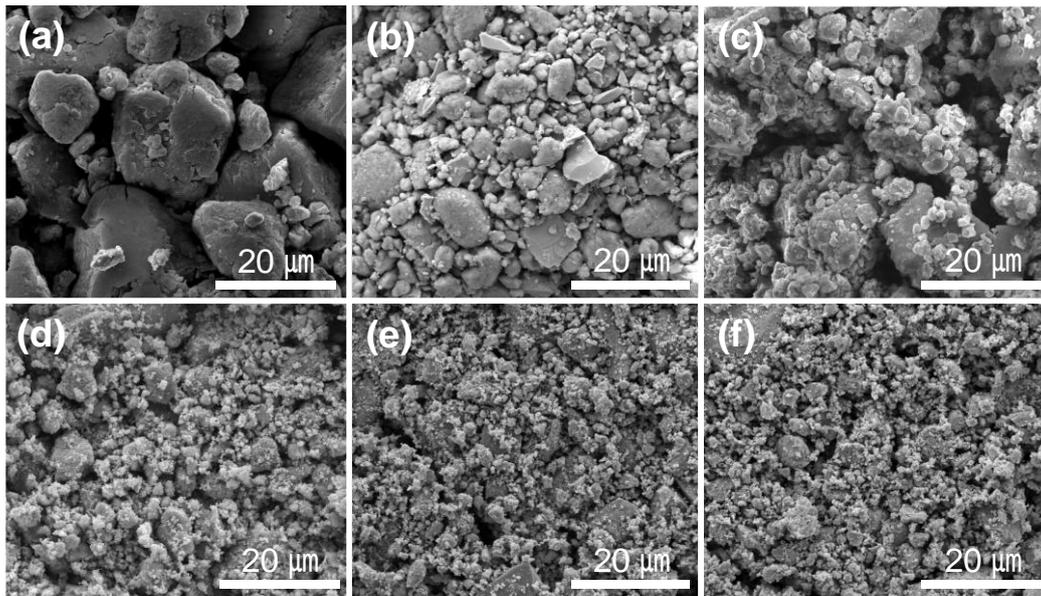
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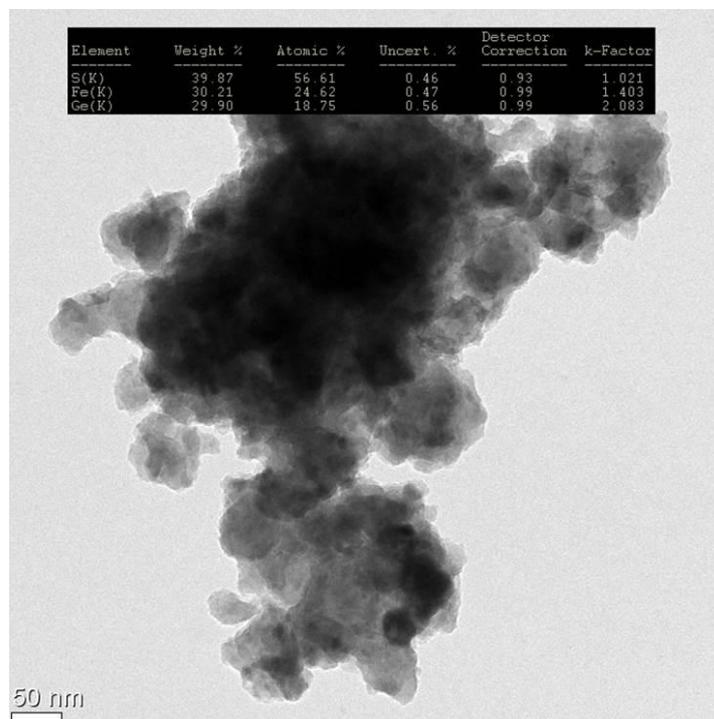
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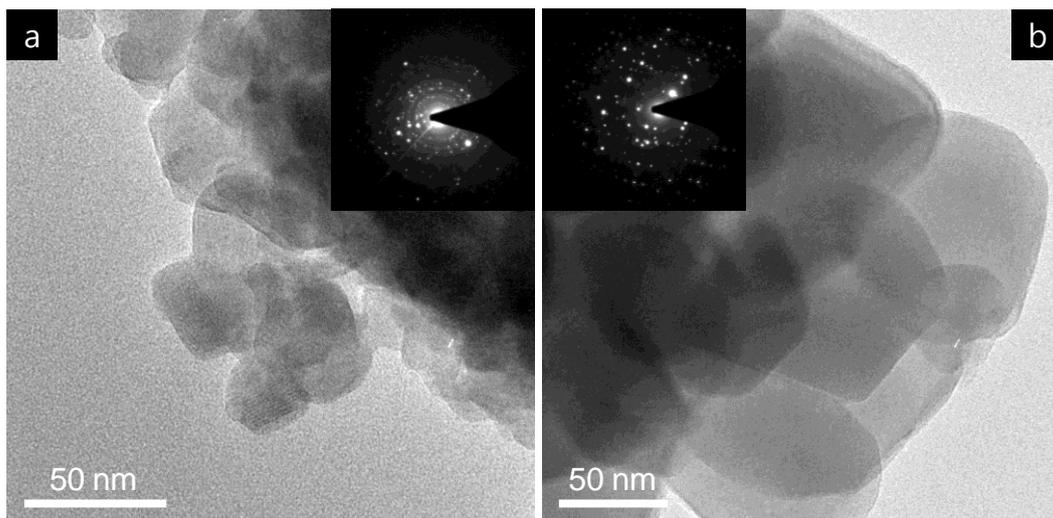
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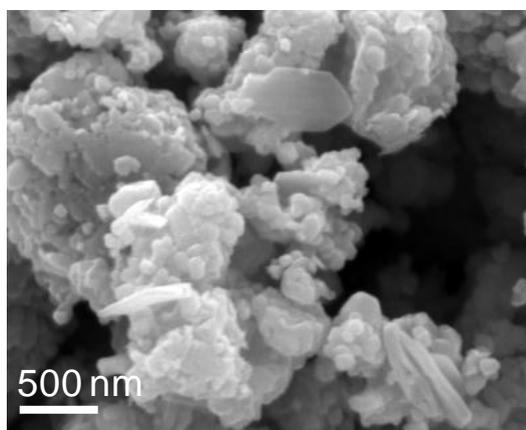
**Fig. S1.** SEM images of the powders after reaction periods of (a) 2 h, (b) 4 h, (c) 6 h, (d) 8 h, (e) 10 h, and (f) 12 h.



**Fig. S2.** TEM image and EDS results of as-synthesized  $\text{Fe}_2\text{GeS}_4$  nanopowder.



**Fig. S3.** TEM images and corresponding SAED patterns of (a) as-synthesized and (b) heat-treated Fe<sub>2</sub>GeS<sub>4</sub> nanocrystals.



**Fig. S4.** SEM image of the Fe<sub>2</sub>GeS<sub>4</sub> powders after heat treatment at 450 °C for 2 h showing a few plate-like crystals.