

Supplementary Materials on

**Fe(II)-driven transformation of jarosite to magnetite: Mechanism insights and environmental implications**

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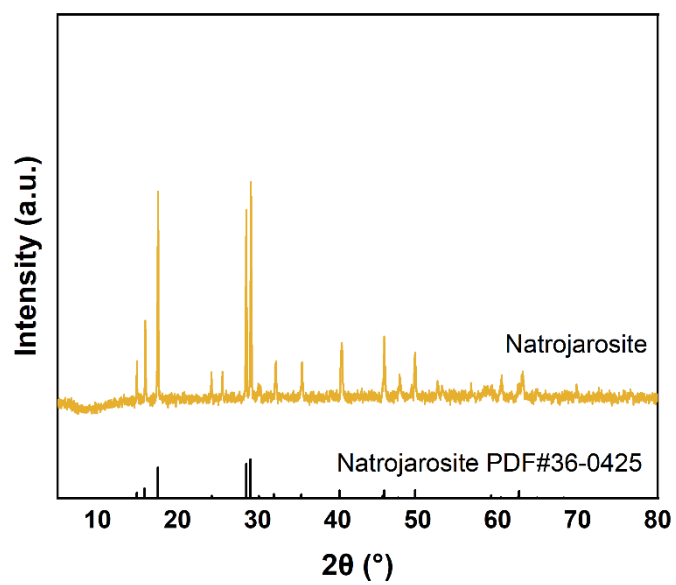
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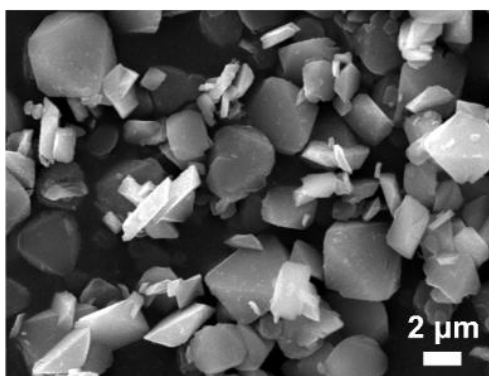
<sup>1</sup> co-first authors.

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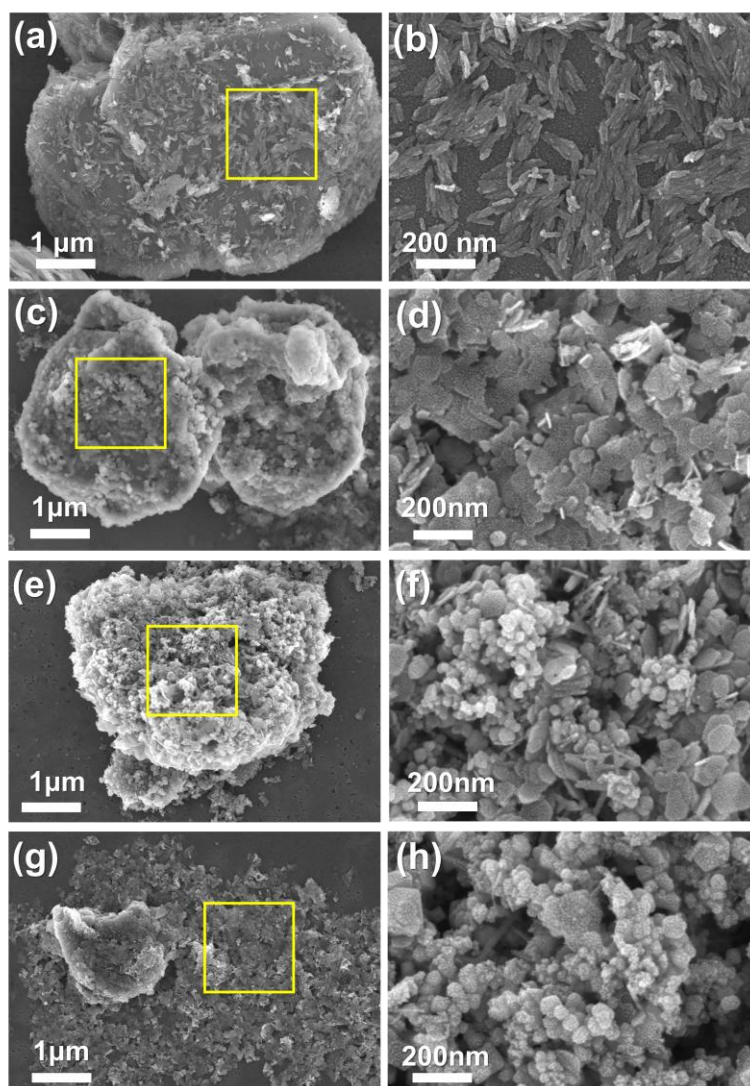
## Figures



**Fig. S1.** XRD patterns of jarosite



**Fig. S2.** SEM images of jarosite



**Fig. S3.** Time-resolved SEM images of intermediates of magnetite crystallization by reductive transformation: (a-b) before adding Fe<sup>2+</sup>; (c-d) 2 min; (e-f) 30 min; (g-h) 60 min; Figures b, d, f, and h correspond to the box areas of figures a, c, e, and g, respectively