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## **Supplementary Material**

## Evolution Analysis of Silver Nanoparticles Synthesized by Lactams Reduction: A Case Study of ε-Caprolactam

Na Zhang,<sup>A</sup> Jianping Duan,<sup>B</sup> Dajiang Zhao,<sup>A</sup> and Guisheng Yang<sup>A,C</sup>

<sup>A</sup>School of Chemistry and Chemical Engineering, Hefei University of Technology, Hefei 230009,

China.

<sup>B</sup>Department of Polymer Science and Engineering, Zhejiang University, Hangzhou 310027, China.

<sup>c</sup>Corresponding author. Email: hfut20110766@163.com

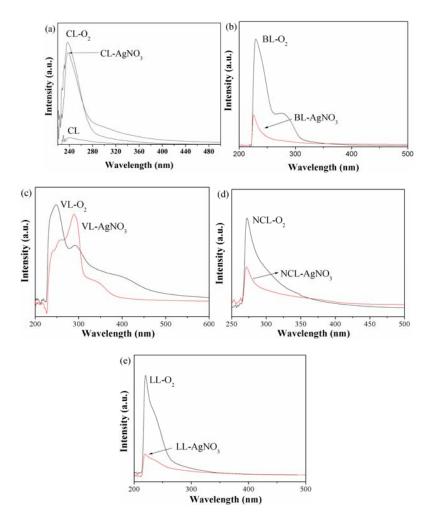


Fig. S1 UV-vis spectra of lactams oxidized by silver nitrate and oxygen.

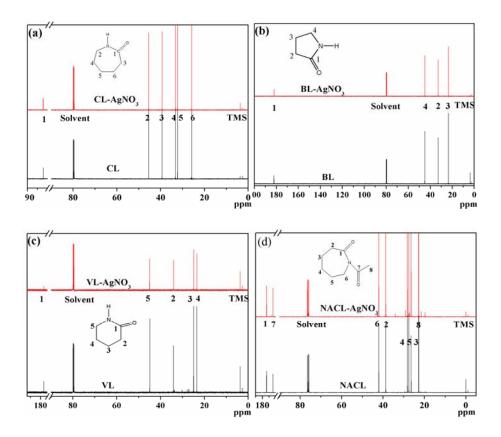


Fig. S2 <sup>13</sup>C-NMR spectra of lactams before and after oxidized by silver nitrate.

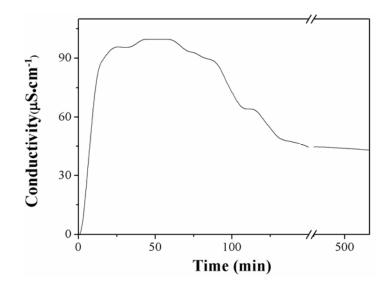


Fig. S3 Conductivity evolution of the mixture composed by silver nitrate and CL. The concentration of

silver nitrate in molten CL was equal to the case used to illustrate the evolution of particle

morphologies in Fig.7.