

**Heterogeneous reactions of toluene/O₃/NH₃ on hematite
nanoparticles: the impacts of light illumination on organic
ammonium salts formation**

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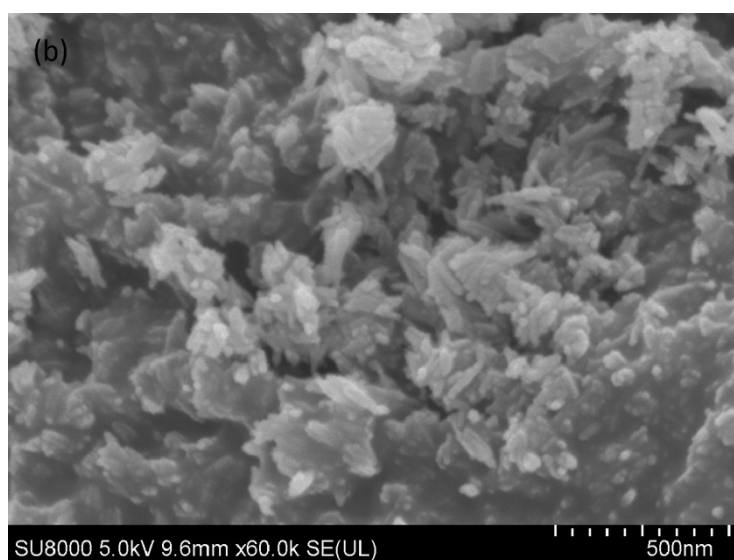
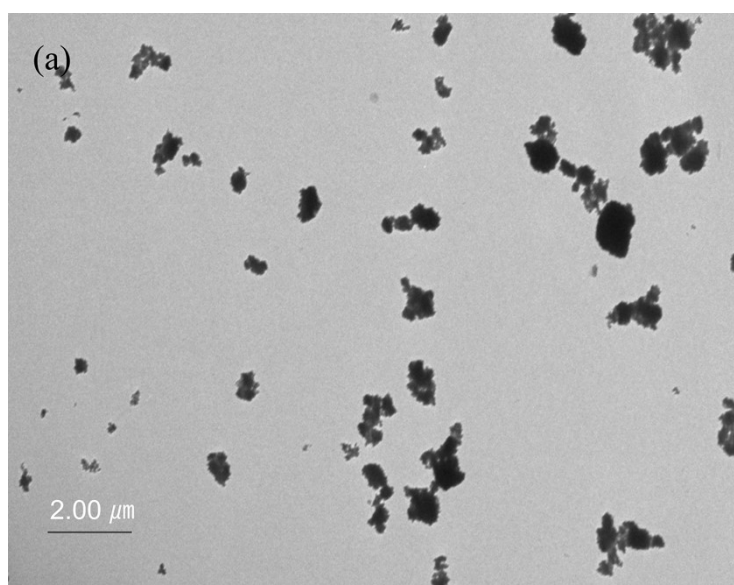


Fig. S1 Characterization of hematite nanoparticles (a) Transmission Electron Microscope (b) Scanning Electron Microscope.

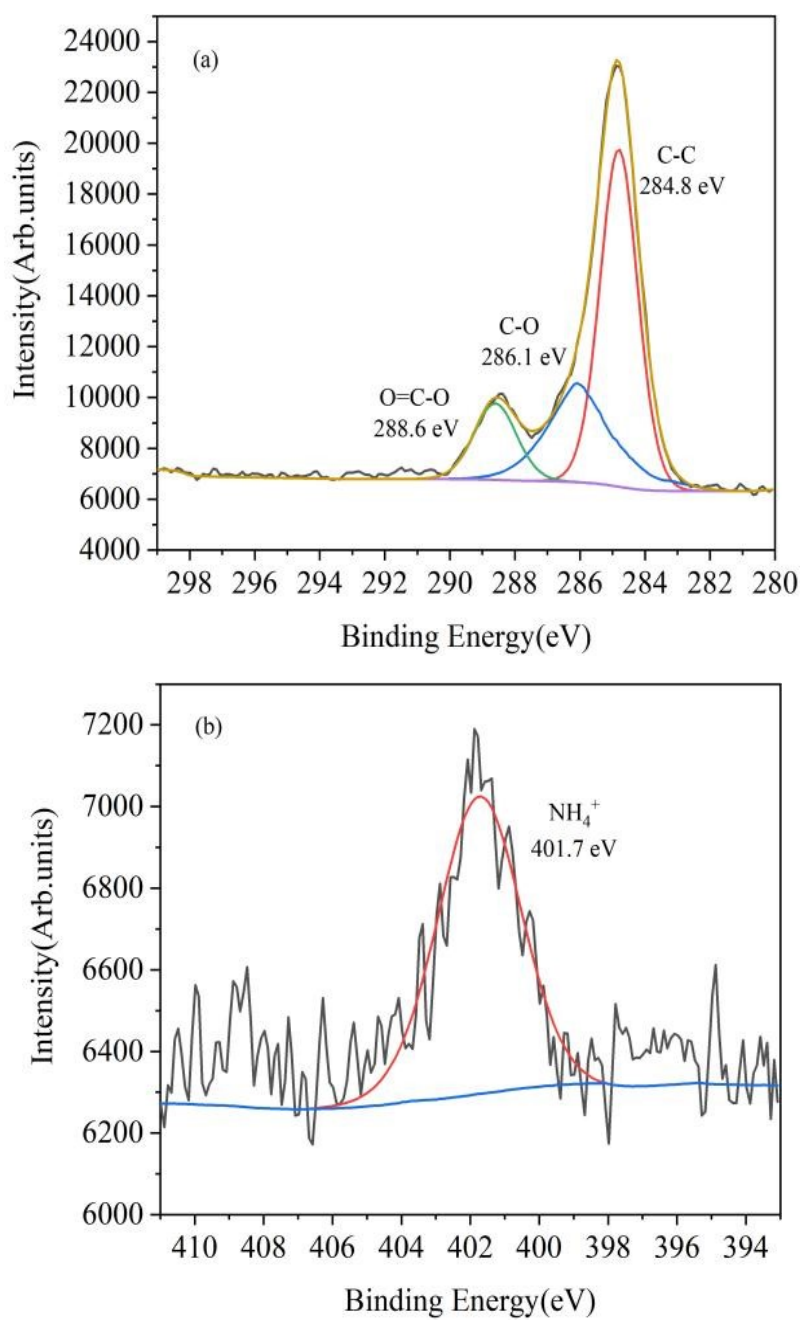


Fig. S2 Peak fitting diagram of XPS elements after reaction of toluene/O₃/NH₃ (a) C 1s (b) N 1s.

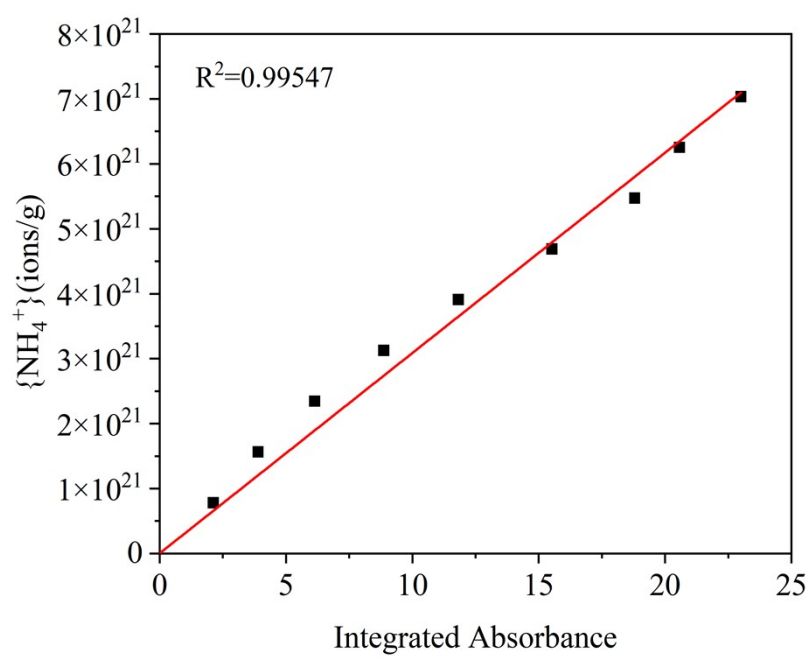


Fig. S3 Calibration curve for the integrated absorbance versus the concentration of organic ammonium salts.