

Supplementary Information for  
**Enhanced Debromination of Tetrabromobisphenol A by  
Zero-valent Copper Nanoparticles Modified Green Rusts**

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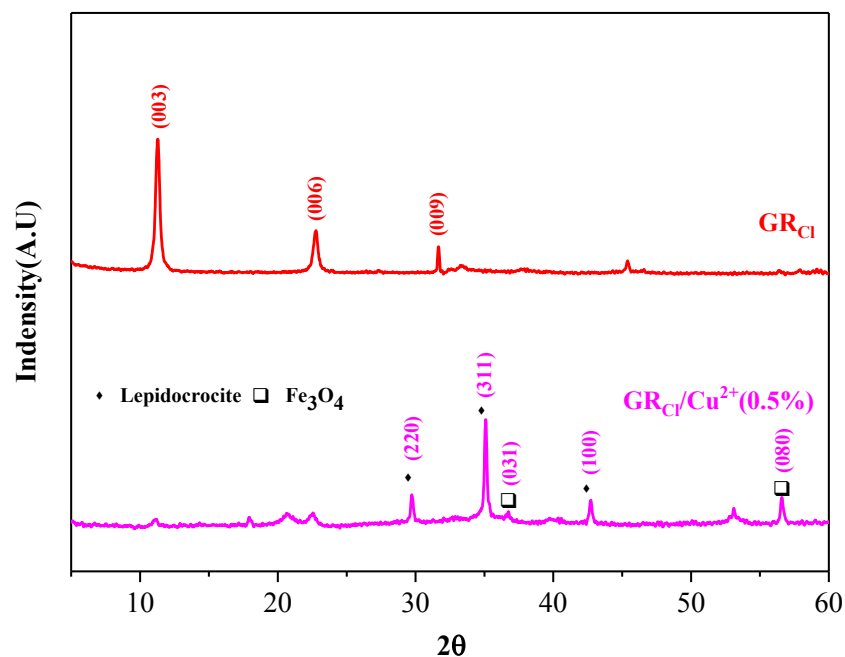


Figure S1. XRD of the GR(Cl)-Cu<sup>2+</sup> and GR(Cl).

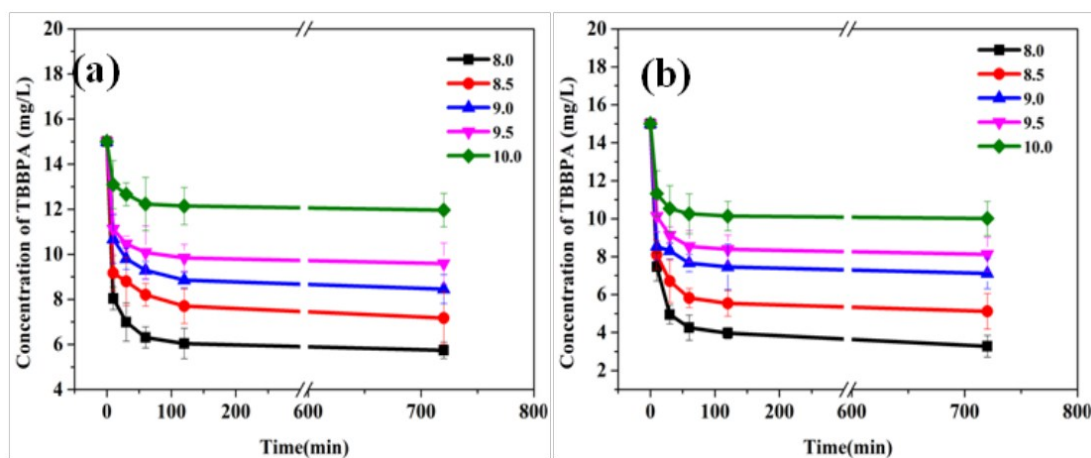


Figure S2. Effect of pH on TBBPA reduction by GR(Cl) and GR(Cl)-Cu NPs.

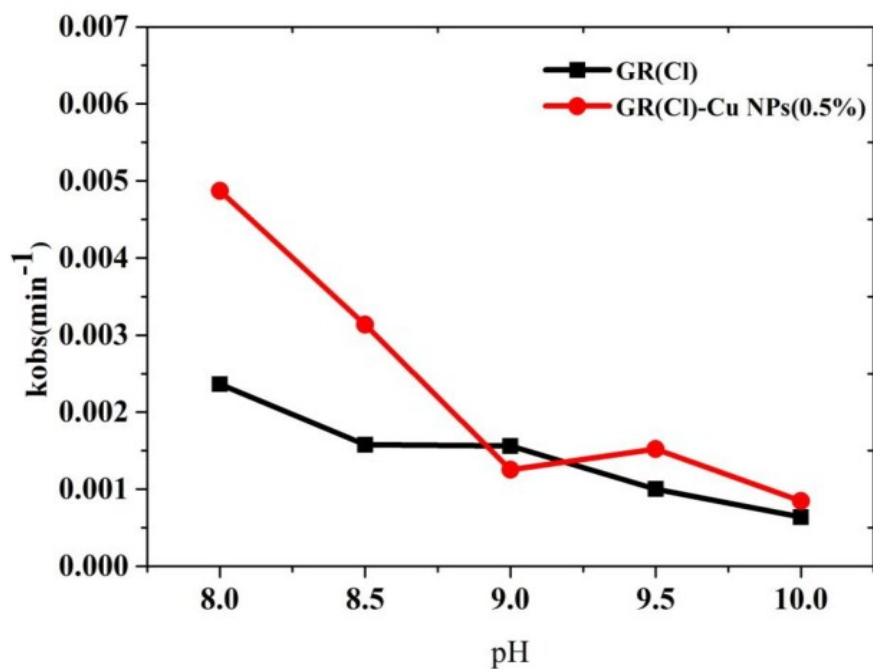


Figure S3. Effect of pH on pseudo first order reaction rate of TBBPA reduction by GR(Cl) and GR(Cl)-Cu NPs.

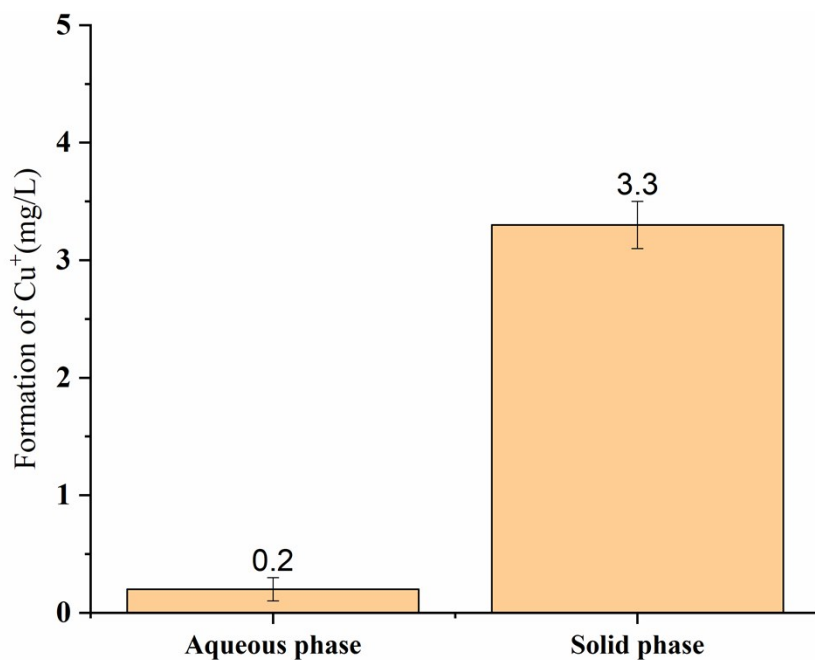


Figure S4.  $\text{Cu}^+$  content in GR(Cl)- $\text{Cu}^{2+}$  system (0.5%). The concentration is normalized to the reaction aqueous volume.

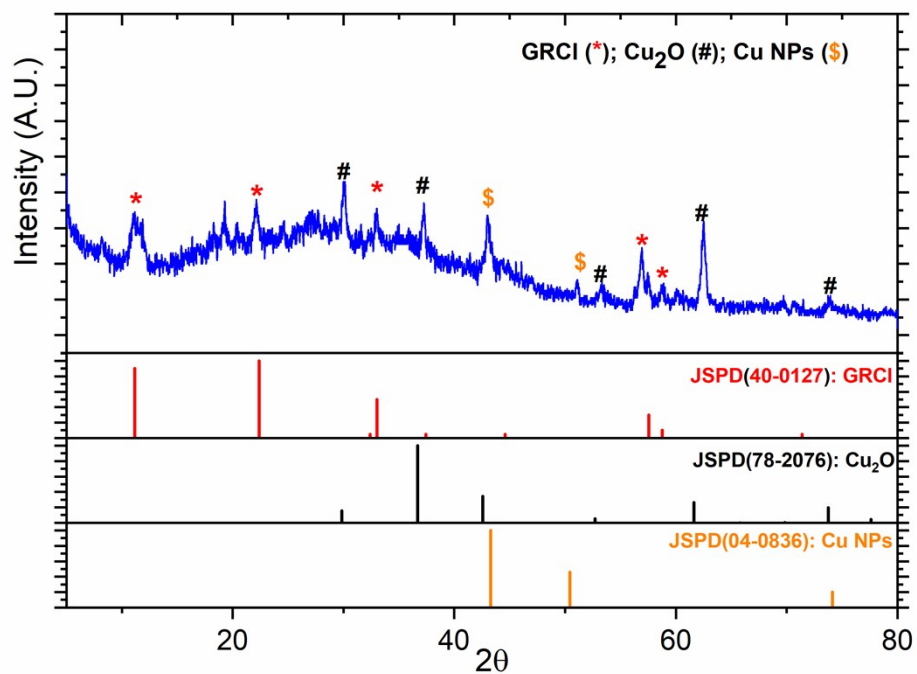
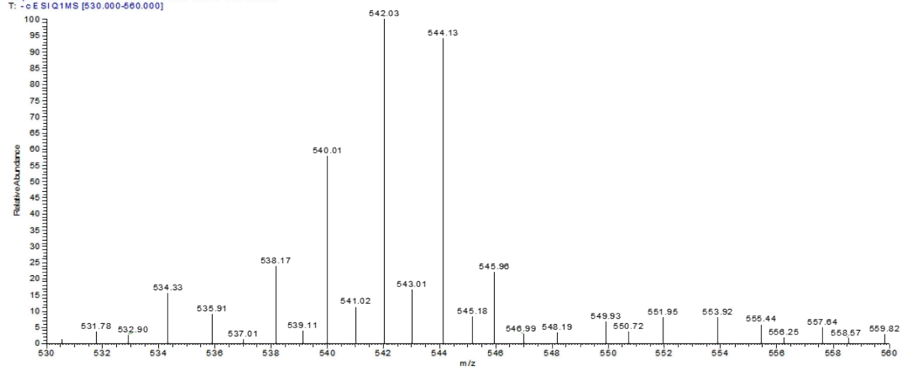
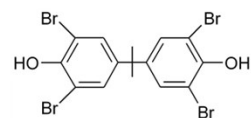


Figure S5. Cu<sub>2</sub>O generation after GR(Cl)-Cu NPs reaction with TBBPA. High Cu NPs dosage (10%) in GR(Cl)-Cu NPs was used for Cu<sub>2</sub>O measurement.

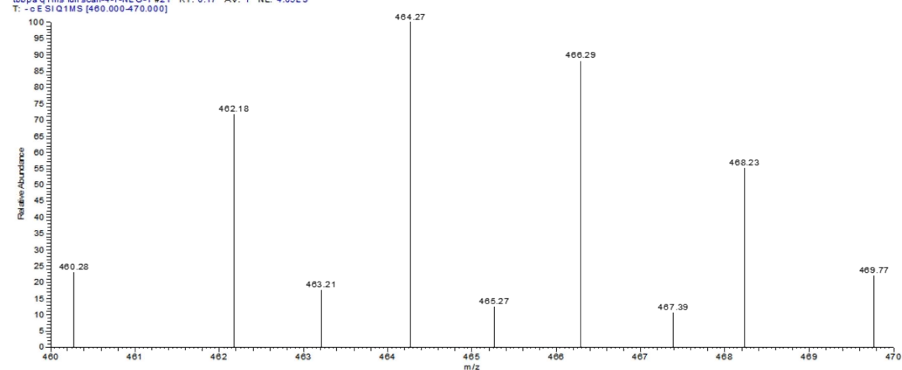
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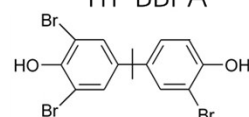
TBBPA



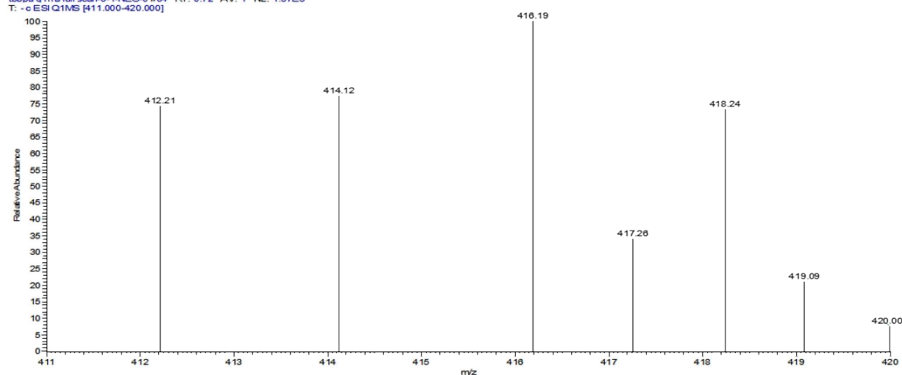
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T: -c ESI Q1MS [460.000-470.000]



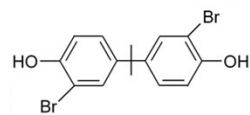
Tri-BBPA



tbppa q1ms full scan-6-1-NEG-0 #84 RT: 0.72 AV: 1 NL: 1.37E3  
T: -c ESI Q1MS [411.000-420.000]



DBBPA



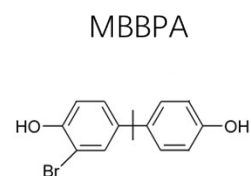
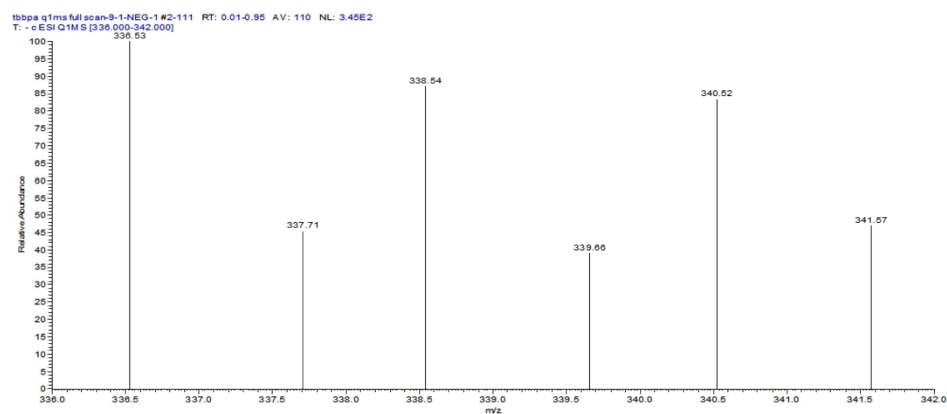
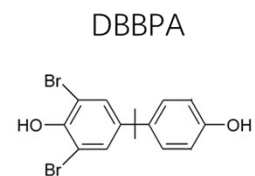
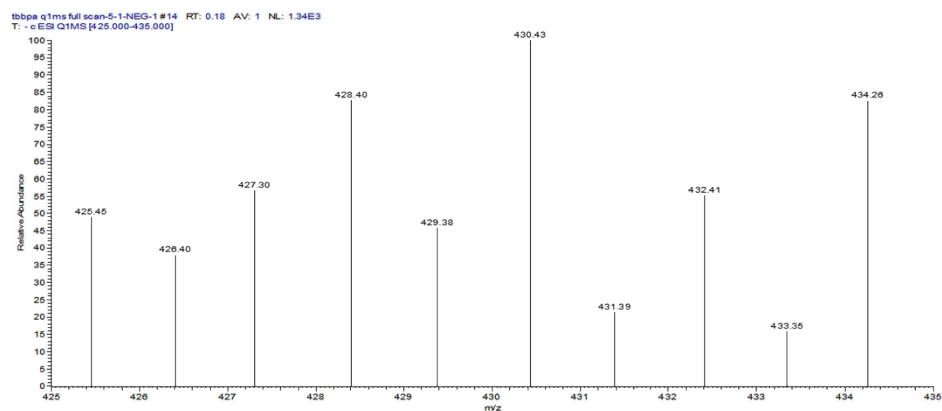


Figure S6. Mass spectra of potential intermediates from the degradation of TBBPA by GR(Cl)-Cu NPs.