***Suppotring Information for***

**A polar mineral tourmaline enables synthesis of 0D/2D CuO photocatalyst with enhanced photocatalytic activity**

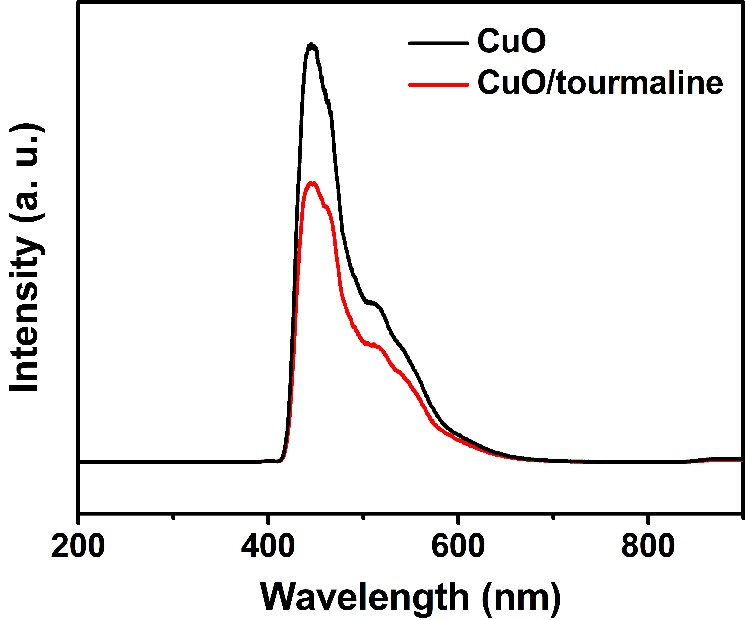
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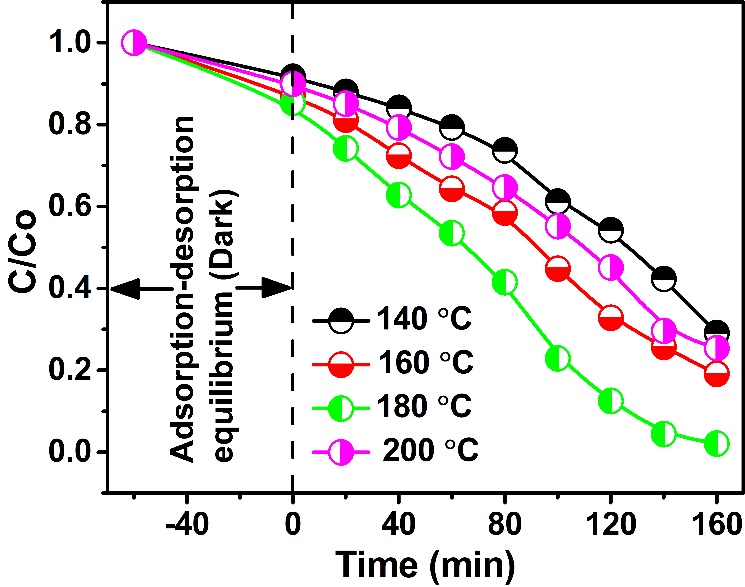
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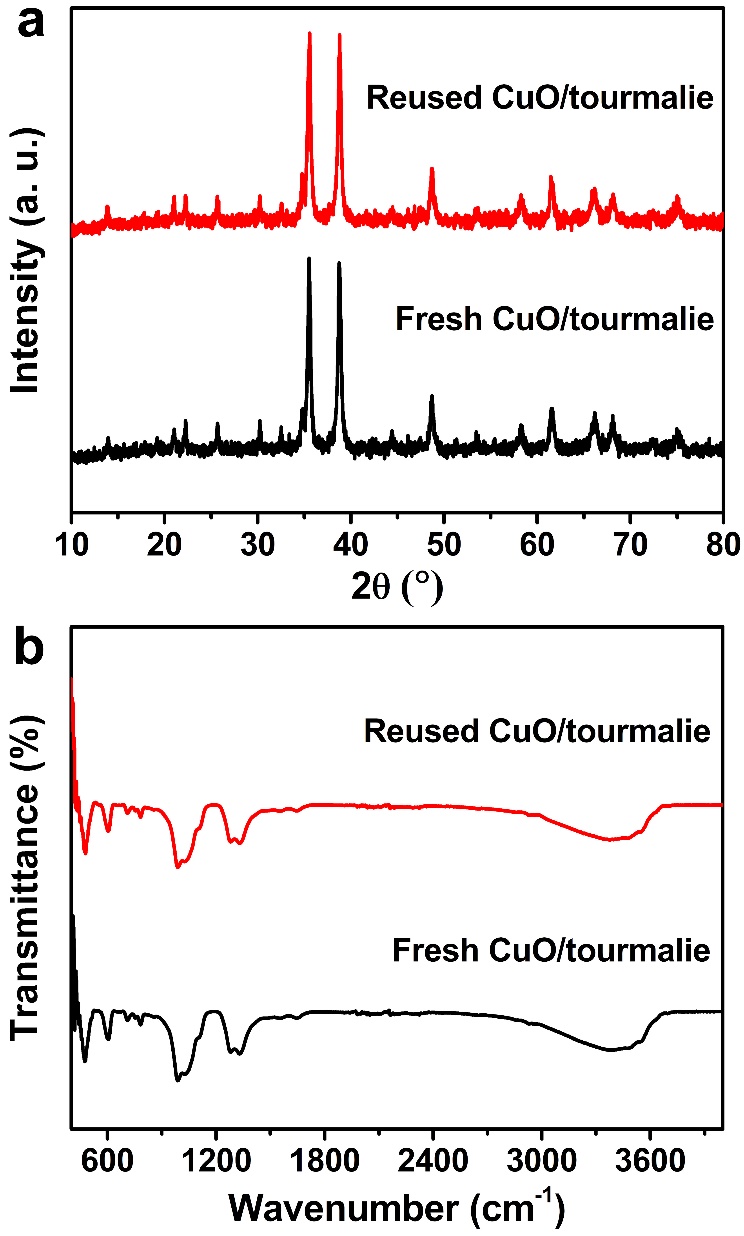
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**Figure S1:** PL spectra of the CuO and CuO/tourmaline composite.



**Figure S2:** Photocatalytic degradation curves of MB by the CuO/tourmaline composite with different synthesis temperatures.



**Figure S3:** (a) XRD patterns and (b) FTIR spectra of the fresh and reused CuO/tourmaline composite.