

Supporting information

Bridging and synergistic effect of the pyrochlore like $\text{Bi}_2\text{Zr}_2\text{O}_7$ with robust CdCuS solid solution for durable photocatalytic removal of the organic pollutants

Fig and Table captions

Fig (S1). Comparison of PXRD of the CuS, CdS and CdCuS solid solution

Fig (S2). SAED patterns of the pure of $\text{Bi}_2\text{Zr}_2\text{O}_7$, CuS, CdCuS and CdCuS/ $\text{Bi}_2\text{Zr}_2\text{O}_7$ nanocomposite

Fig (S3). EDS spectra of the pure of (a) $\text{Bi}_2\text{Zr}_2\text{O}_7$, (b) CuS, (c) CdCuS and (d) CdCuS/ $\text{Bi}_2\text{Zr}_2\text{O}_7$ nanocomposite

Fig (S4). Photocurrent measurement of the samples

Fig (S5). Photodegradation of MB dye solution by (a) $\text{Bi}_2\text{Zr}_2\text{O}_7$, (b) CuS, (c) CdCuS, and (d) $\text{Bi}_2\text{Zr}_2\text{O}_7$ supported by CdCuS

Fig (S6). Photo reduction of 4-NP solution by (a) $\text{Bi}_2\text{Zr}_2\text{O}_7$, (b) CuS, (c) CdCuS, and (d) $\text{Bi}_2\text{Zr}_2\text{O}_7$ supported by CdCuS

Fig (S7). Stability analysis of catalyst by XRD pattern for before and after the reaction

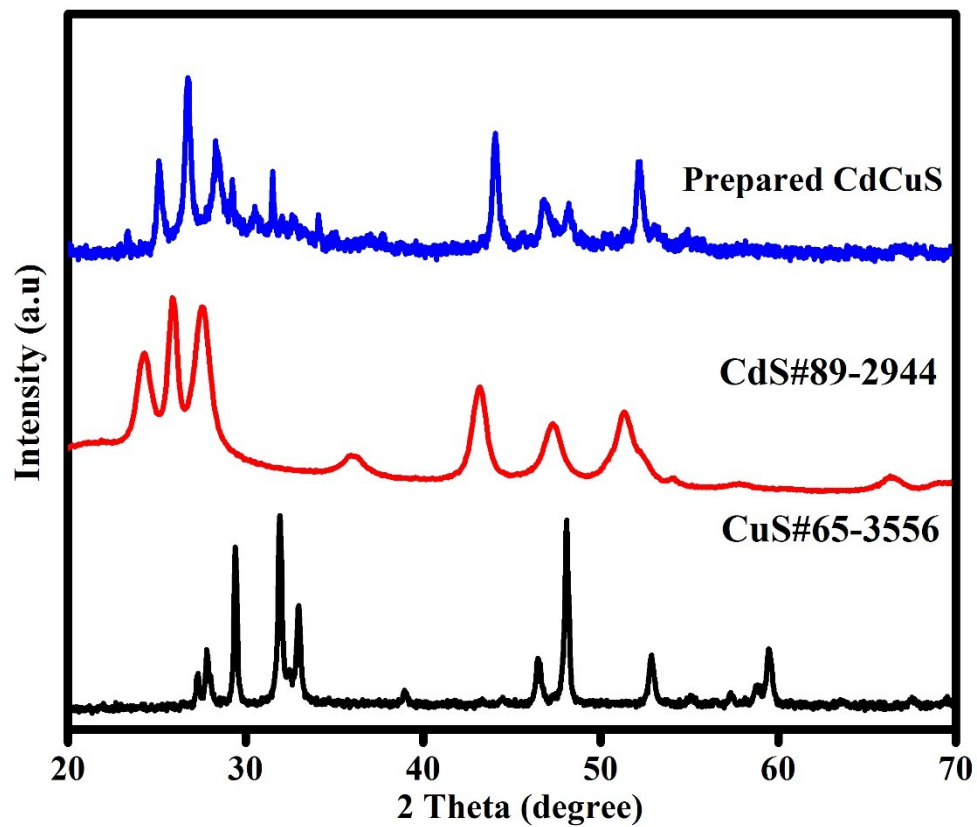


Fig (S1). Comparison of PXR of the CuS, CdS and CdCuS solid solution

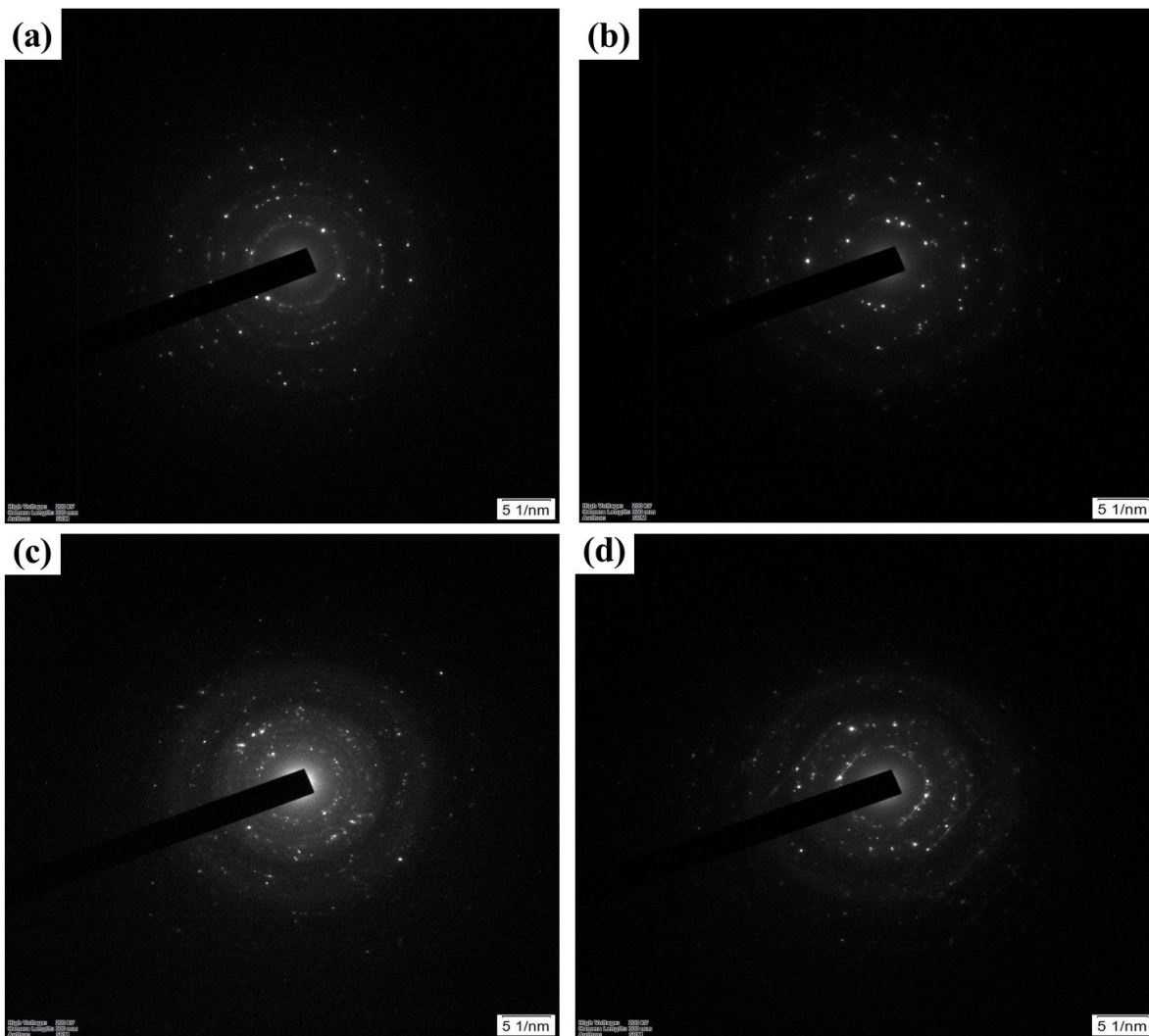


Fig (S2). SAED patterns of the pure of $\text{Bi}_2\text{Zr}_2\text{O}_7$, CuS , CdCuS and $\text{CdCuS}/\text{Bi}_2\text{Zr}_2\text{O}_7$ nanocomposite

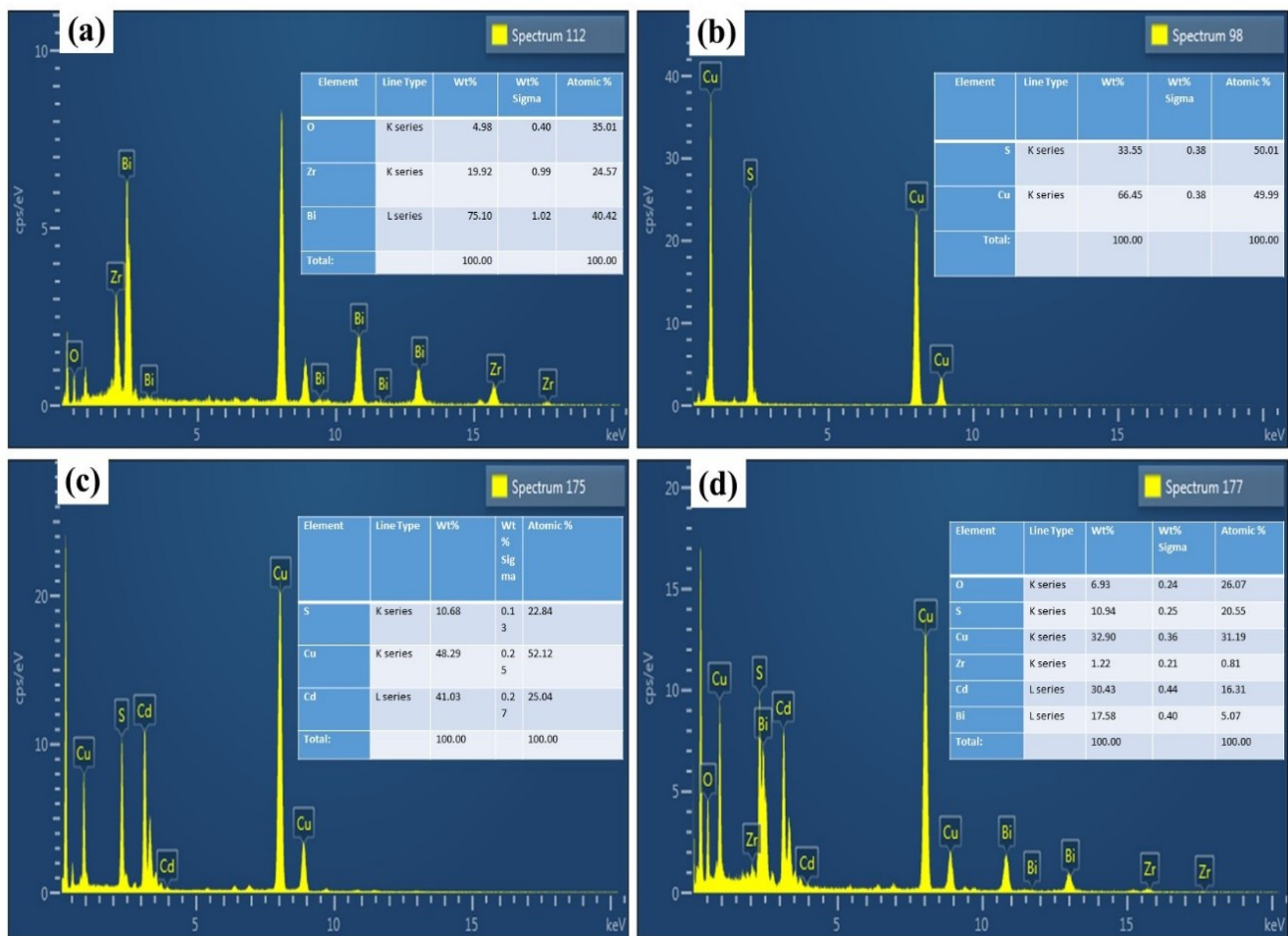


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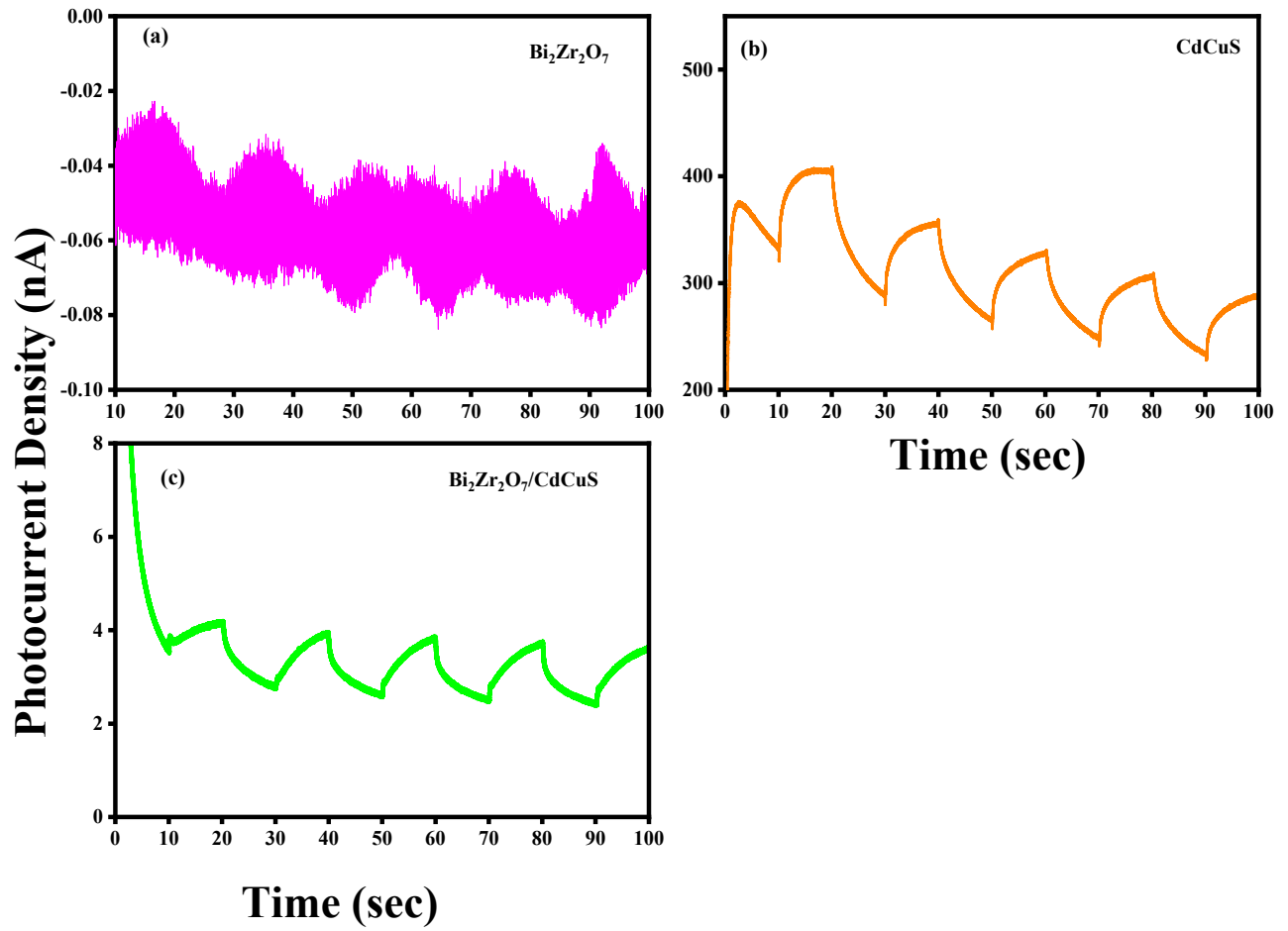


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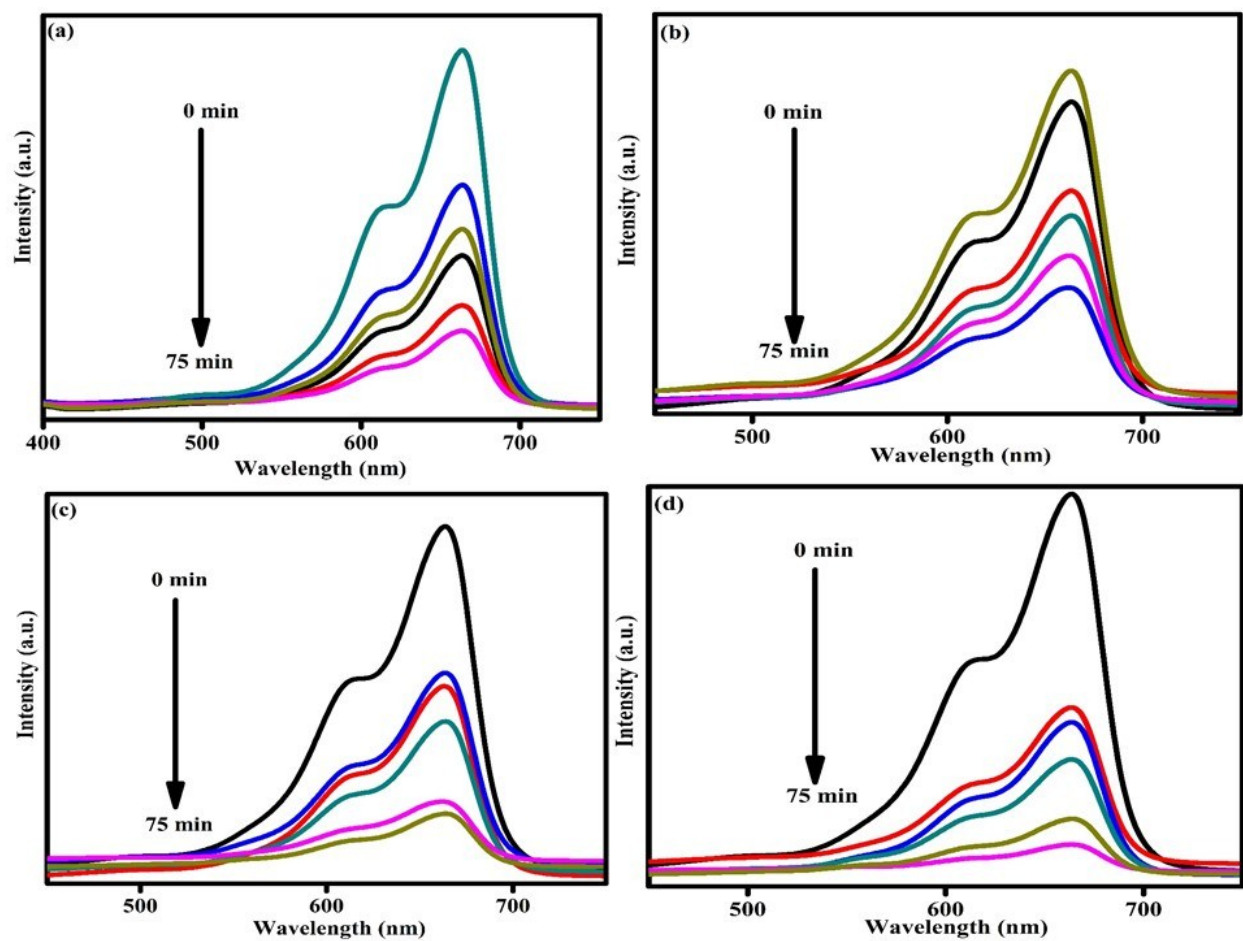


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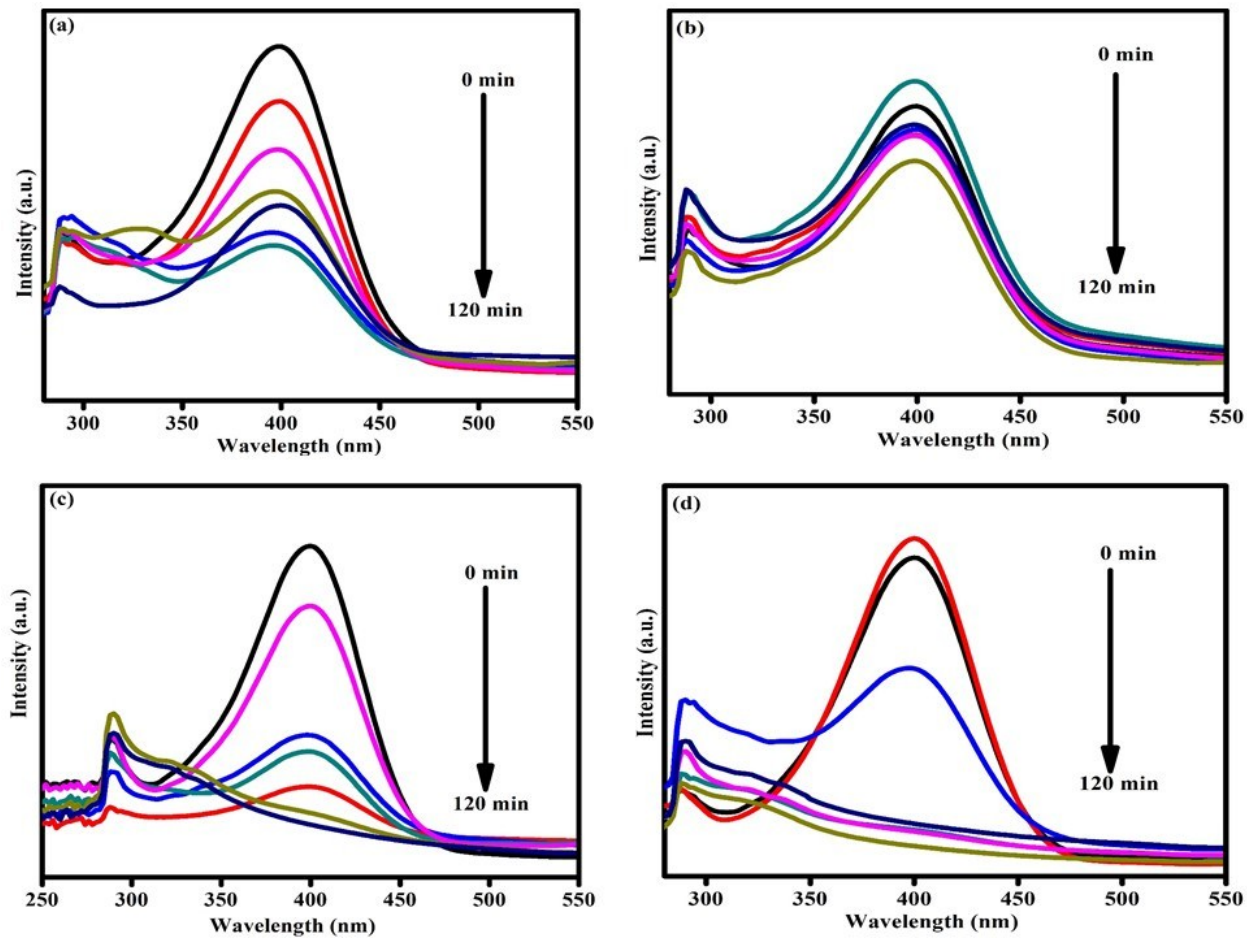


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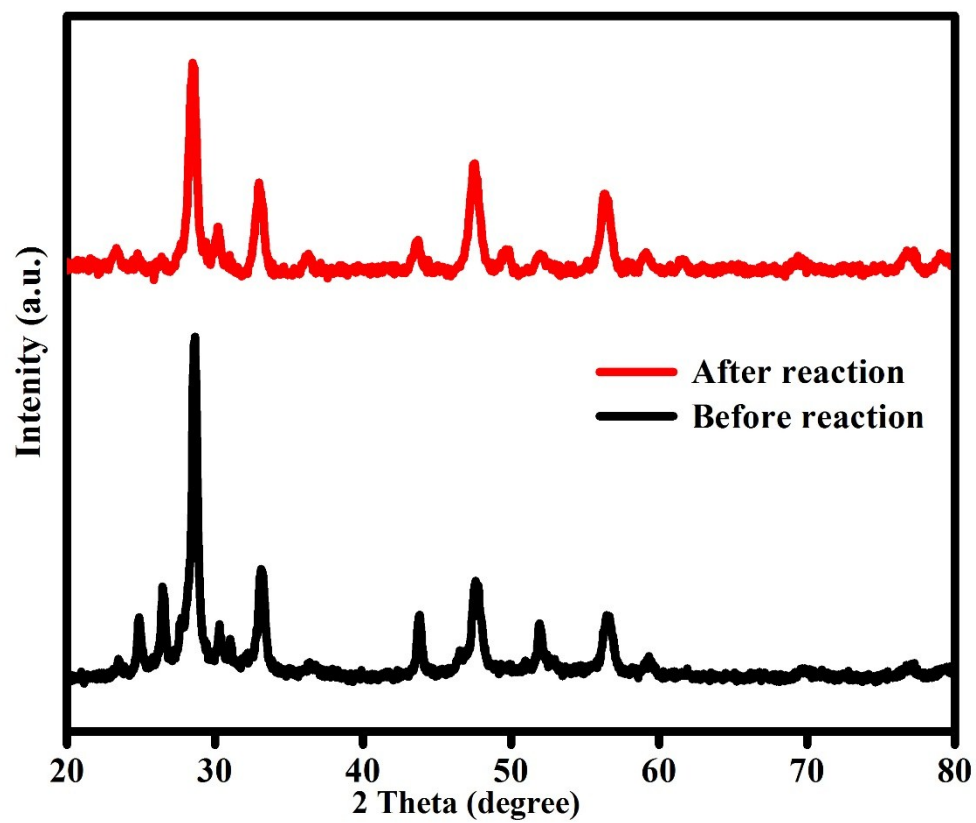


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