



## Supplementary Material

# 2D CTAB-MoSe<sub>2</sub> nanosheets and 0D MoSe<sub>2</sub> quantum dots: Facile top-down preparations and their peroxidase-like catalytic activity for colorimetric detection of hydrogen peroxide

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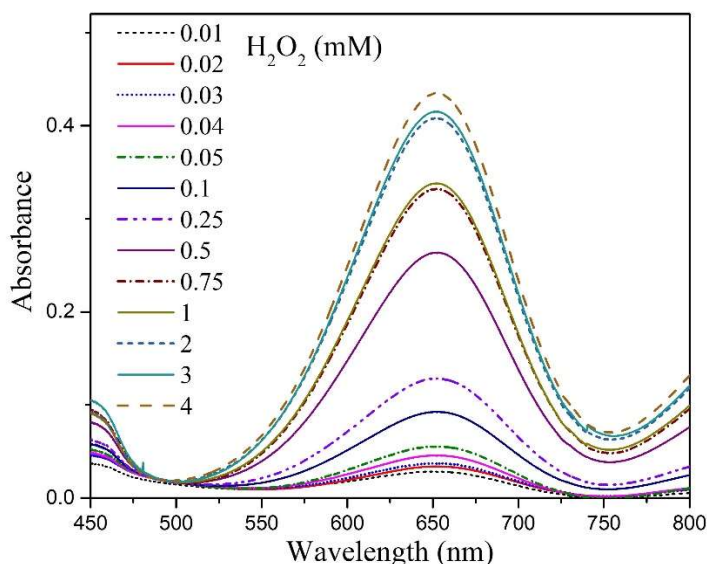
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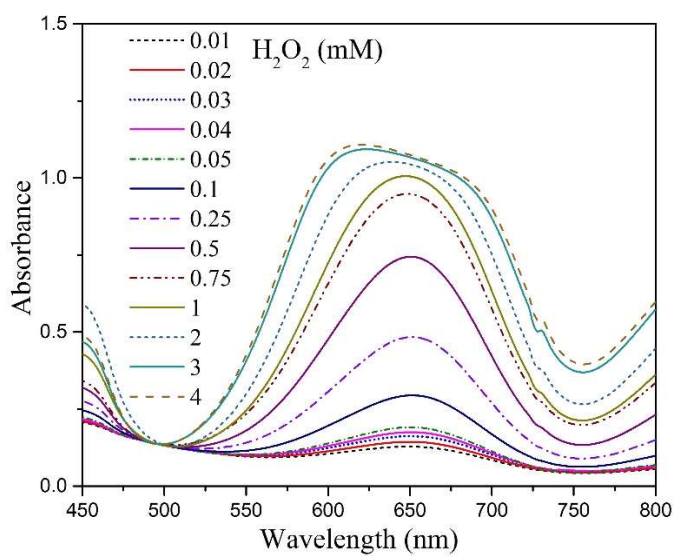
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**Figure S1.** UV-vis absorption spectra of MoSe<sub>2</sub> QDs with different concentrations of H<sub>2</sub>O<sub>2</sub>.



**Figure S2.** UV-vis absorption spectra of 2D CTAB-MoSe<sub>2</sub> NSs with different amounts of H<sub>2</sub>O<sub>2</sub>.

**Table S1.** Michaelis-Menten parameters of the 2D CTAB-MoSe<sub>2</sub> NSs and 0D MoSe<sub>2</sub> QDs.

Catalyst	Substrate	K <sub>m</sub> (mM)	V <sub>max</sub> (10 <sup>-8</sup> M s <sup>-1</sup> )
2D CTAB-MoSe <sub>2</sub> nanosheets	H <sub>2</sub> O <sub>2</sub>	0.015	0.03
	TMB	4.22	0.076
0D MoSe <sub>2</sub> QDs	H <sub>2</sub> O <sub>2</sub>	0.389	0.012
	TMB	2.58	0.01

