Electronic Supplementary Data

CdO and CdS nanoparticles from pyrolytic method: Preparation, characterization and photocatalytic activity

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UV absorbance spectra for different concentrations of dye solutions (starting from 0.05 to 4 mg/L) were measured within the range of 325–575 nm. Inset figure shows the relationship between the dye concentration and the measured absorbance at 464 nm. The maximum measured intensities increase linearly with increasing dye concentration and for which the absorbance curves have a maximum value at 464 nm. Statistical analyses of this curve indicated the high accuracy of the linear model since the coefficient of determination $R^2$ of this model was 0.997, which reveals the good precision and reproducibility of this calibration curve. Consequently, during the photocatalytic activity investigation experiments, the concentration of the dye in any unknown sample was estimated by measuring the absorbance intensity at 410 nm.

![Absorbance intensities for RY 84 solutions and the relationship between the absorbance intensity and concentration of the dye at the optimum wavelength (inset).](image)

Fig. S1 – Absorbance intensities for RY 84 solutions and the relationship between the absorbance intensity and concentration of the dye at the optimum wavelength (inset).
Fig. S2 – TGA of [Cd(dca)$_2$(Mim)$_2$]$_n$.

Fig. S3 – TGA of [Cd(SCN)$_2$(Bim)$_2$]$_n$. 
Fig. S4 – FT-IR spectrum of CdO particles.

Fig. S5. FT-IR spectrum of CdS particles.
Fig. S6 – XRD pattern of the products (a) CdO and (b) CdS.
Fig. S7 – Optical absorption spectra of CdO and CdS particles.