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Influences of the precursor molar ratio in synthesis on the structures and visible-light driven CO_2 reduction into solar fuel of CdS catalyst

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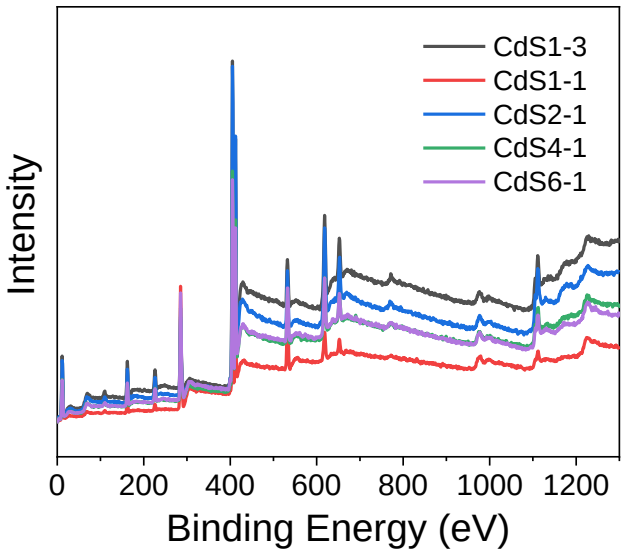

Figure S1. XPS survey spectra of the as-synthesized CdS samples.

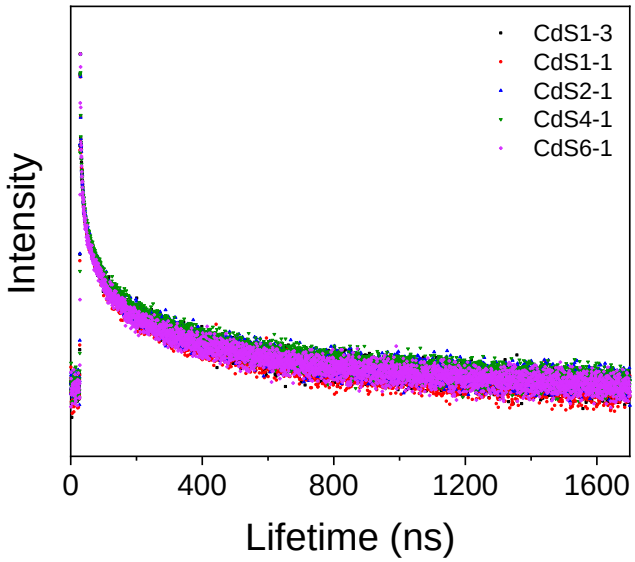

Figure S2. Time-resolved PL decay curves of the as-synthesized CdS samples.

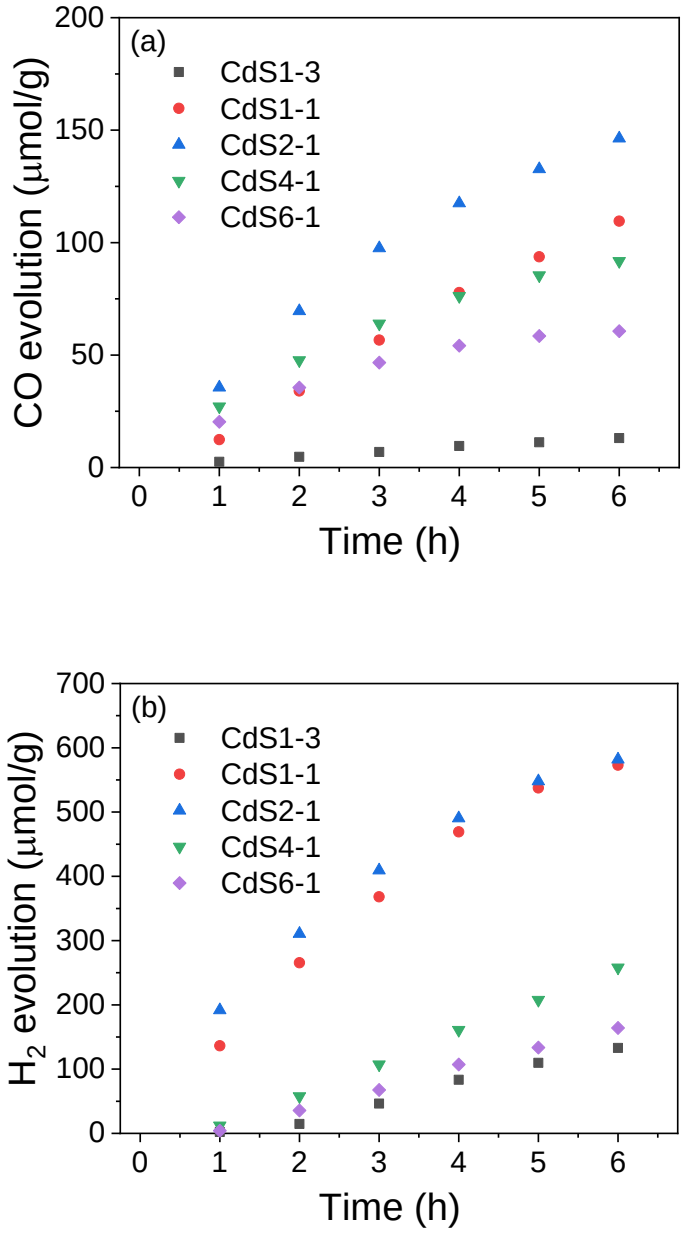

Figure S3. Time-dependent gas evolution yield of (a) CO and (b) H_2 for photocatalytic reduction of CO_2 over the as-synthesized CdS catalysts in 6 h in CH_3CN:H_2O:TEOA (3:1:1, 100 mL) mixed solution under visible-light irradiation (420 nm ≤ λ ≤ 780 nm).

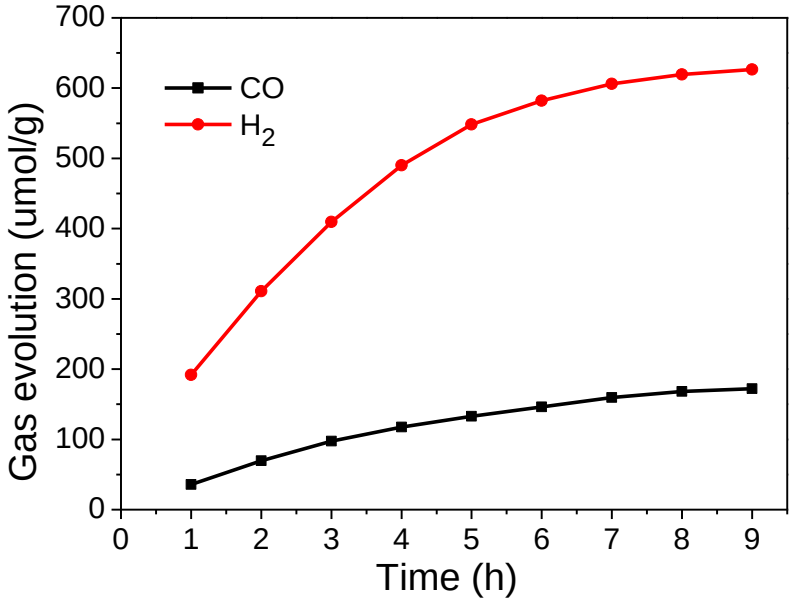

Figure S4. Time dependence of CO and H_2 evolution amount using CdS2-1 catalyst in CH_3CN:H_2O:TEOA (3:1:1, 100 mL) mixed solution under visible-light illumination for 9 h.