Electronic Supplementary Material (ESI) for RSC Advances.

Anchoring Co_3O_4 nanoparticles on conjugated polyimide ultrathin nanosheets: construction of a Z-scheme nano-heterostructure for Enhanced photocatalytic performance

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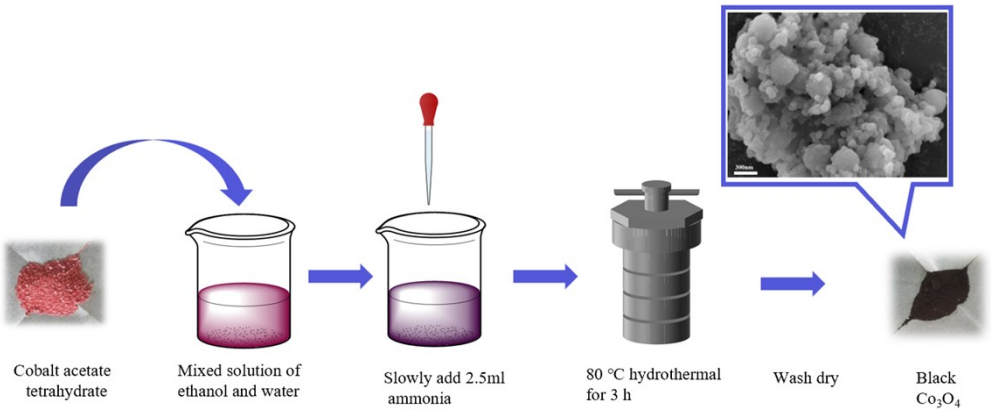

Scheme S1. preparation process of Co_3O_4 nanoparticles

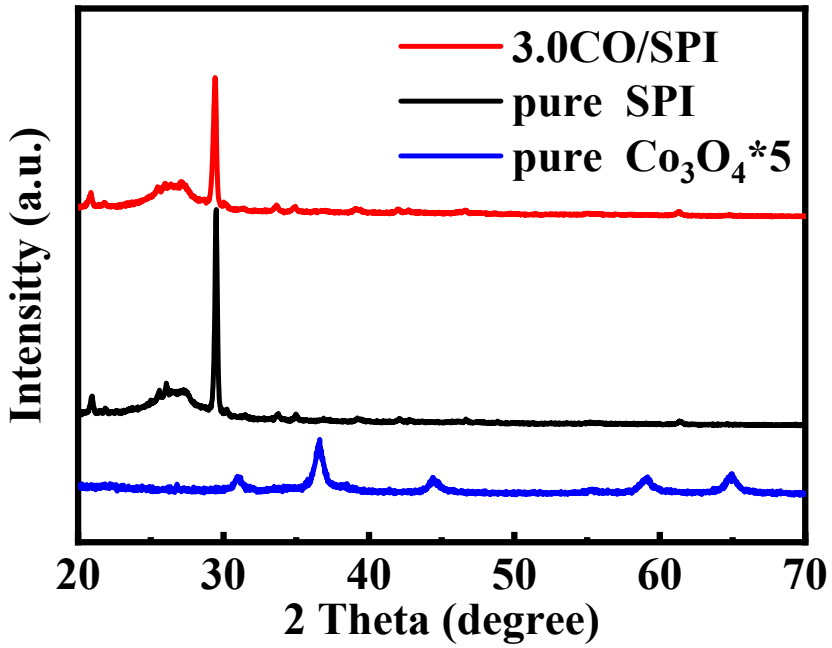

Fig. S1. XRD patterns of pure Co3O4, SPI, and 3.0COs/SPI powder samples.

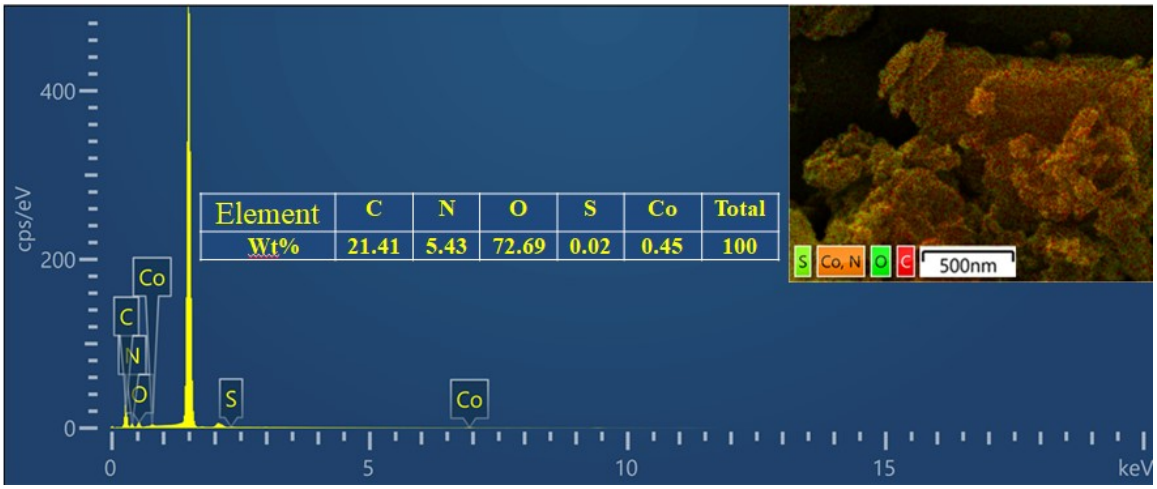

Fig. S2. Element distribution of 3.0CO/SPI composite.

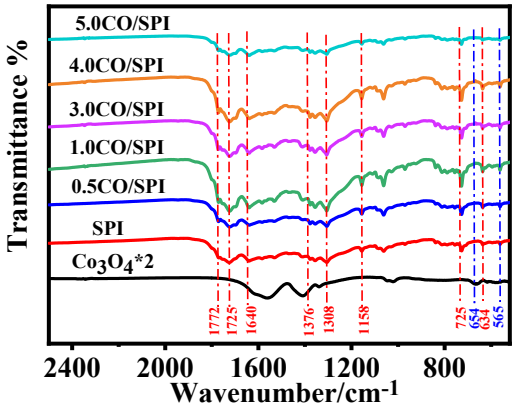

Fig. S3. FT-IR spectra of pure Co_3O_4, SPI, and CO/SPI composites with different CO contents.

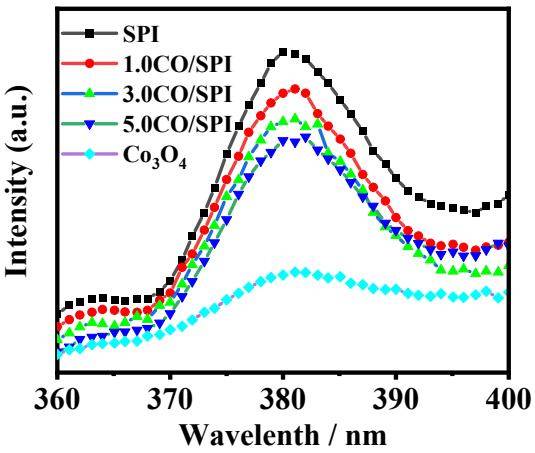

Fig. S4. Comparison of photoluminescence (PL) spectra of pure SPI, pure Co_3O_4, and CO/SPI composites with different CO contents.

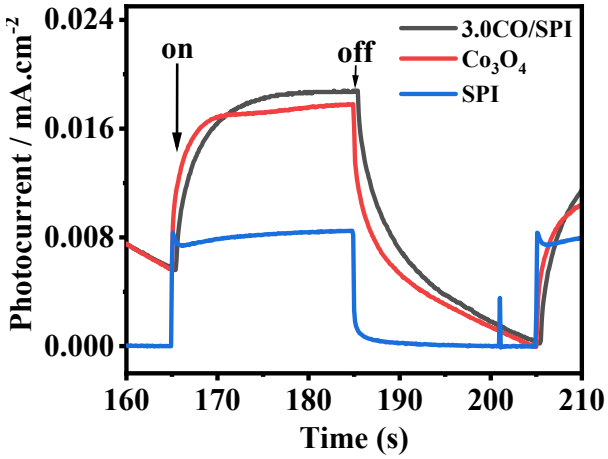

Fig. S5. Photocurrent–potential curves of SPI, Co_3O_4, and 3.0CO/SPI composite electrode in the 0.5 mol L^{-1} Na_2SO_4 aqueous solution under full arc light irradiation.

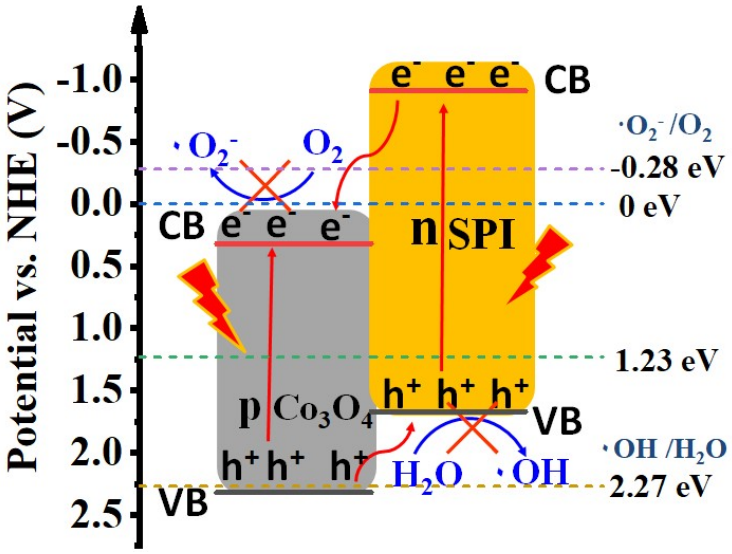

Fig. S6. Schematic illustration of the traditional type-II heterojunction charge transfer mechanism.