

Article

Co(O)_x Particles in Polymeric N-doped Carbon Nanotube Applied for Photocatalytic H₂ or Electrocatalytic O₂ Evolution

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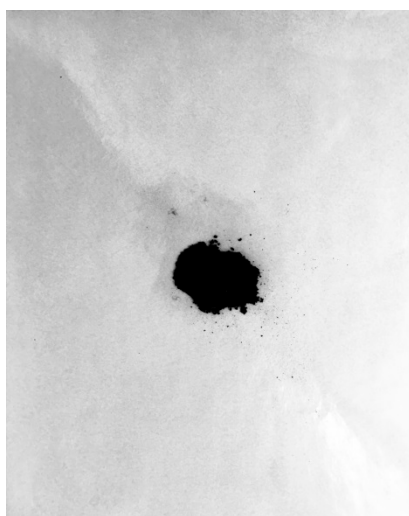


Figure S1. The picture of CoO_x-NDCNTs sample.

Table S1. The elemental analysis of different samples.

Samples	C (%)	N (%)
g-C ₃ N ₄	34.14	60.04
CoO _x -NDCNTs	78.75	17.55
Co-NDCNTs	92.66	6.56

The external quantum efficiency (EQE) test

The external quantum efficiency (EQE) tests were performed in a 20 ml quartz bottle with rubber septum. 10 mg sample was dispersed in aqueous solution (10 ml) containing 20 vol% TEOA. This system was evacuated and bubbled Ar for 10 min to remove the residual gas. Then, the photocatalytic system was irradiated with 300 W Xe arc lamp with a set of band-pass filters (= 405 nm, 420 nm, 450 nm, 500 nm and 650 nm) under magnetic stirring, the irradiation intensities were determined by a NOVA II laser power meter (Ophir Photonics).

Table S2. EQE value calculated at different wavelengths.

Wavelength	H₂ Evolved (μmol)	Light Intensity (W)	EQE
405 nm	51.47	0.090	1.83%
420 nm	35.91	0.087	1.28%
450 nm	23.06	0.085	0.78%
500 nm	14.87	0.082	0.47%
650 nm	0.09	—	—