

Electronic supplementary information (ESI)

**Metal-assisted templating route (S⁰M⁺I-) for fabricating thin-layer
CoO covered on the channel of nanospherical-HMS with
enhanced catalytic properties**

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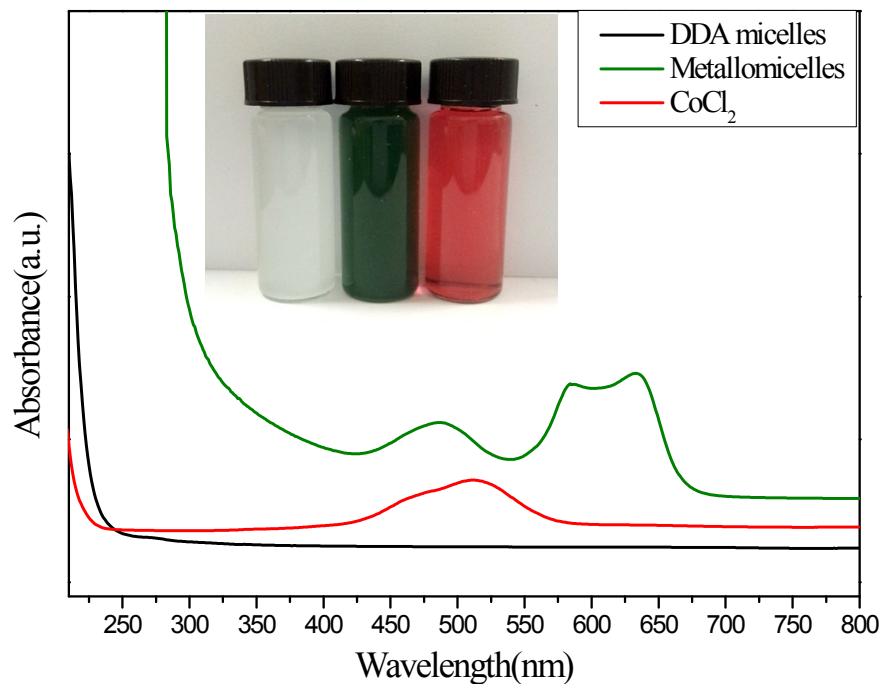


Fig. S1. UV-visible absorption spectra of raw micelles, cobalt chloride and metallomicelles solutions, and the digital photos (insert) of DDA micelles (a), metallomicelles (b) and CoCl₂ (c) solutions.

Table S1 pH value for metallization of micelle systems

Samples	Co ²⁺ /DDA ^a	pH
Raw micelle	0	11.4
Micelle-1Co	1	10.2
Micelle-2Co	2	9.3
Micelle-3Co	3	8.6
Micelle-4Co	4	8.0

^amolar ratio

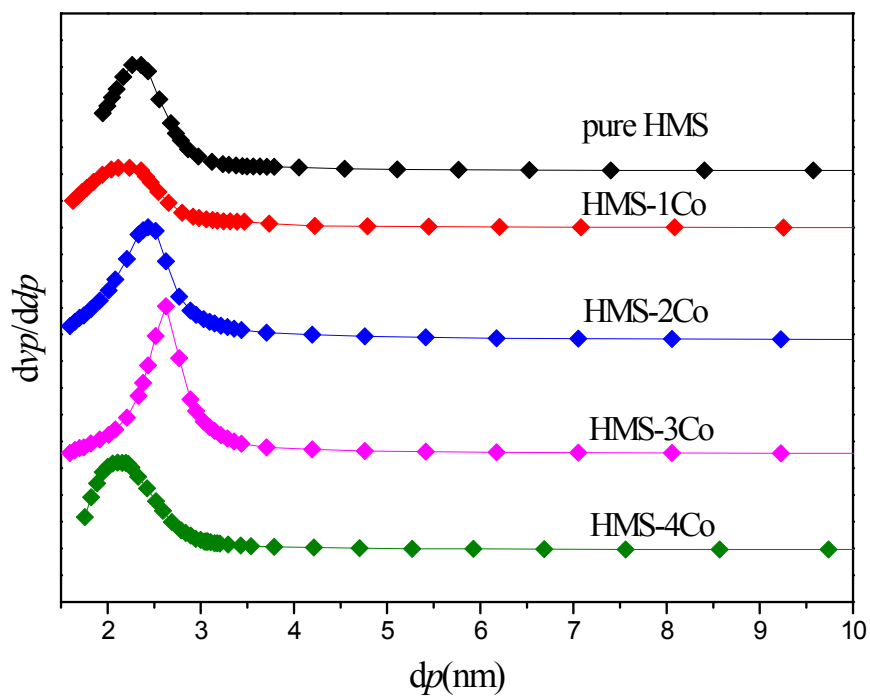


Fig. S2. Pore size distribution of pure HMS and series samples of HMS-xCo

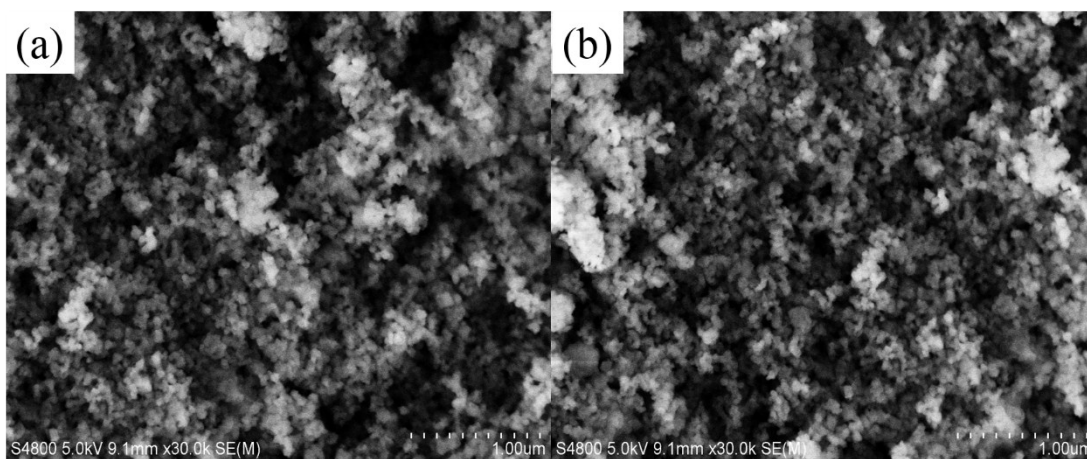


Fig. S3 the SEM images of the sample of HMS-3Co

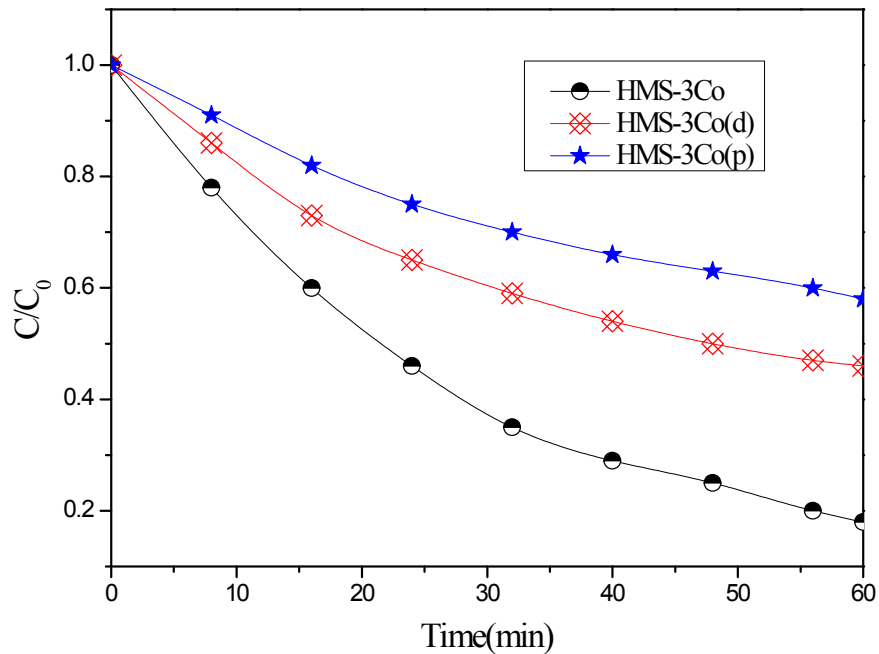


Fig. S4 C/C_0 versus reaction time for the oxidation of phenol at 270 nm using HMS-3Co, HMS-3Co (d) and HMS-3Co (p) for comparison.

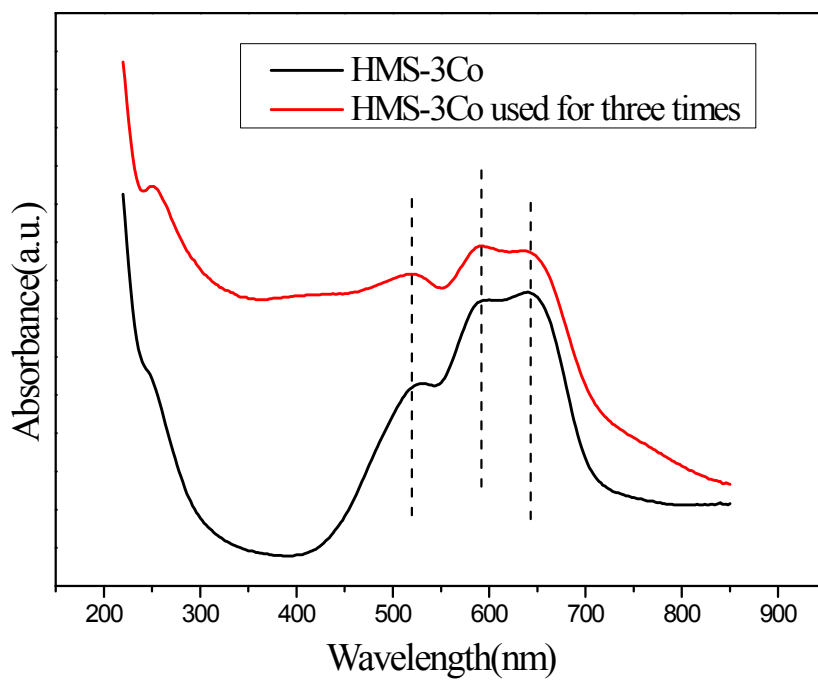


Fig. S5 DRUV-vis spectra for the sample of HMS-3Co and HMS-3Co used for three times