## Palladium-loaded magnetic core–shell porous carbon nanospheres derived from metal–organic framework as a recyclable catalyst

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Fig. S1 N<sub>2</sub> adsorption-desorption isotherms of (A)  $Fe_3O_4@MIL-100(Fe)$  and (C)  $Fe_3O_4@MC-Pd$ . the pore-size-distribution curve of (B)  $Fe_3O_4@MIL-100(Fe)$  and (D)  $Fe_3O_4@MC-Pd$  obtained from the desorption data through the BJH method.



Fig. S2 Time-dependent UV-vis spectral changes in 4-NP catalyzed by Fe<sub>3</sub>O<sub>4</sub>@MC-Pd at  $25^{\circ}$ C.



Fig. S3 XPS spectra of  $Fe_3O_4@MC-Pd$ : survey spectrum (A), high resolution of Pd spectrum (B), high resolution of Fe spectrum (C), and high resolution of C spectrum (D) after running for 10 cycles.