Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information

Interfacial Synthesis of Magnetic PMMA@Fe_3O_4/ $Cu_3(BTC)_2$ Hollow Microspheres through One-Pot Pickering Emulsion and Their Application as Drug Delivery

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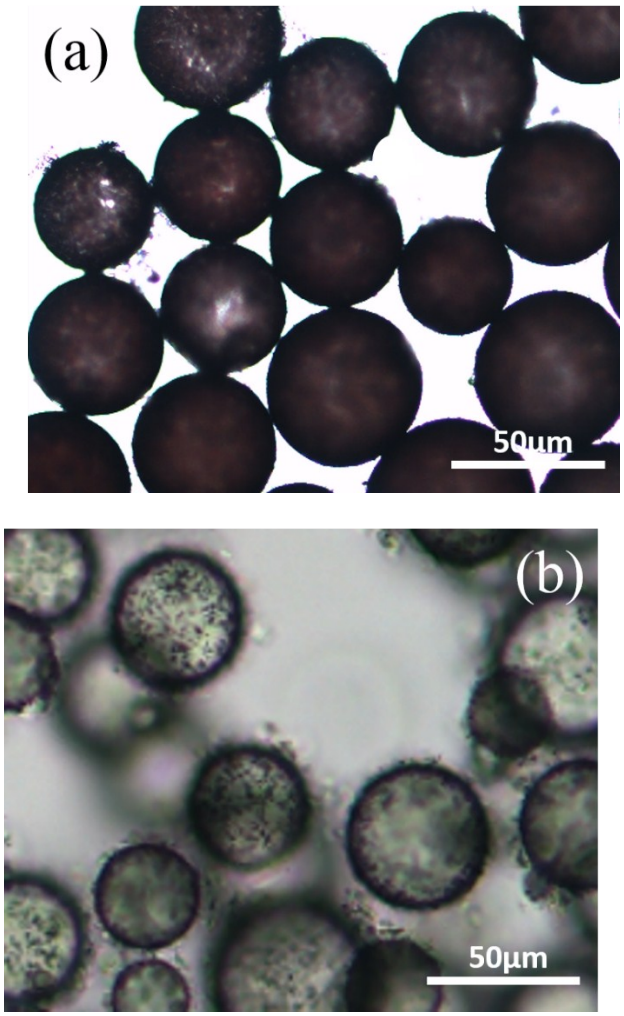

Figure S1 Optical micrographs of Pickering emulsion stabilized by Fe_3O_4 nanoparticles (a) No precursors of $Cu_3(BTC)_2$; (b) Containing precursors of $Cu_3(BTC)_2$

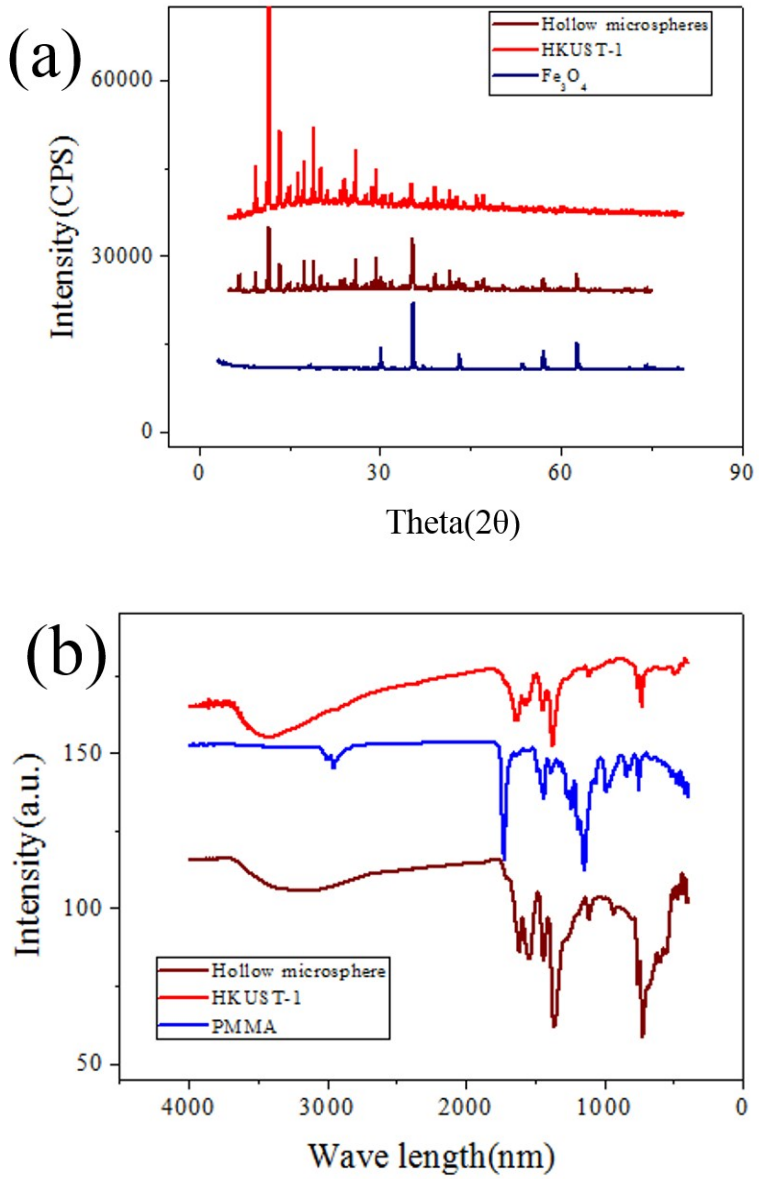

Figure S2 (a): PXRD patterns Fe_3O_4 NPs, $Cu_3(BTC)_2$ and the powder of the magnetic hollow Fe_3O_4/ $Cu_3(BTC)_2$ composite.(b): FTIR spectra of PMMA, $Cu_3(BTC)_2$ and magnetic hollow PMMA@Fe_3O_4/$Cu_3(BTC)_2$ hybrid microspheres

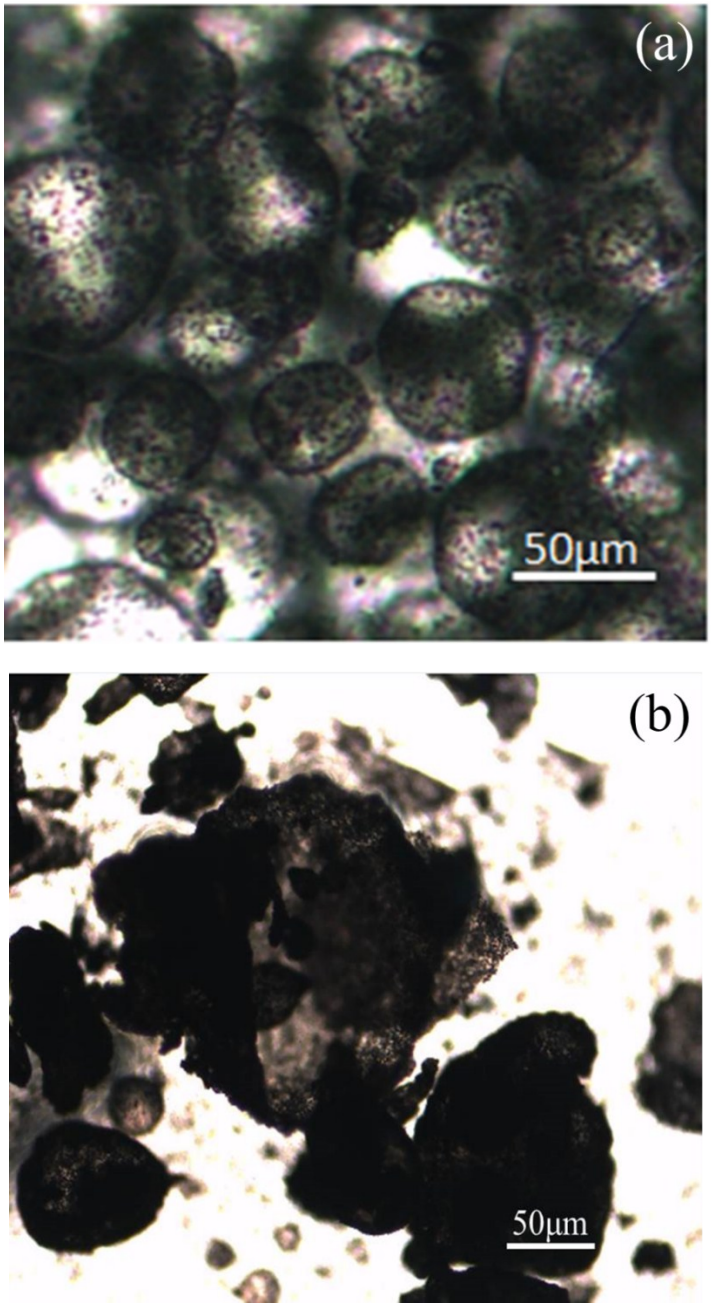

Figure S3 OM images of (a) dried magnetic hollow $Fe_3O_4/Cu_3(BTC)_2$ composite microspheres (b) non-spheres of PMMA@Fe_3O_4 hybrids

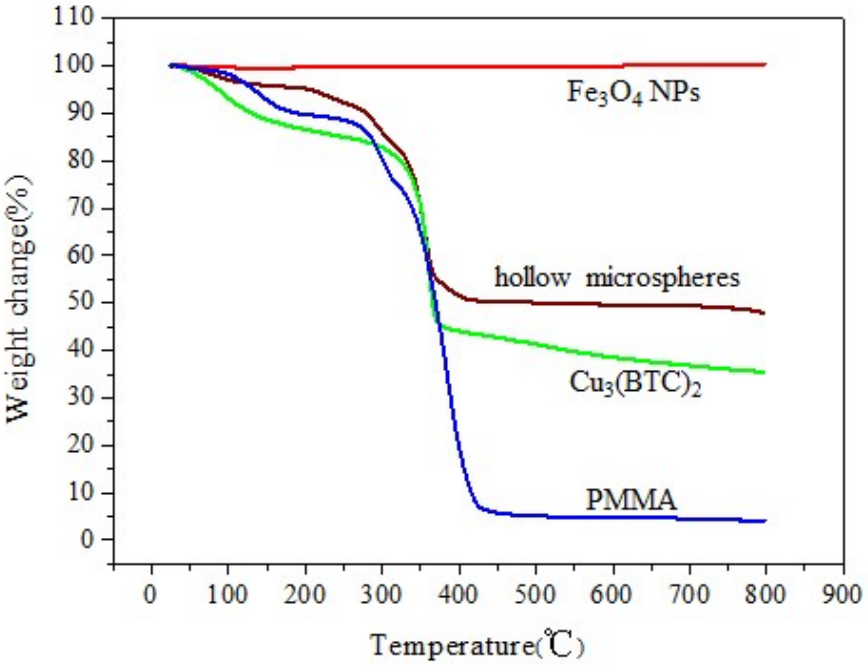

Figure S4 TGA curves of the Fe_3O_4 NPs, $Cu_3(BTC)_2$, PMMA and hollow PMMA@Fe_3O_4 /$Cu_3(BTC)_2$ hybrid microspheres.

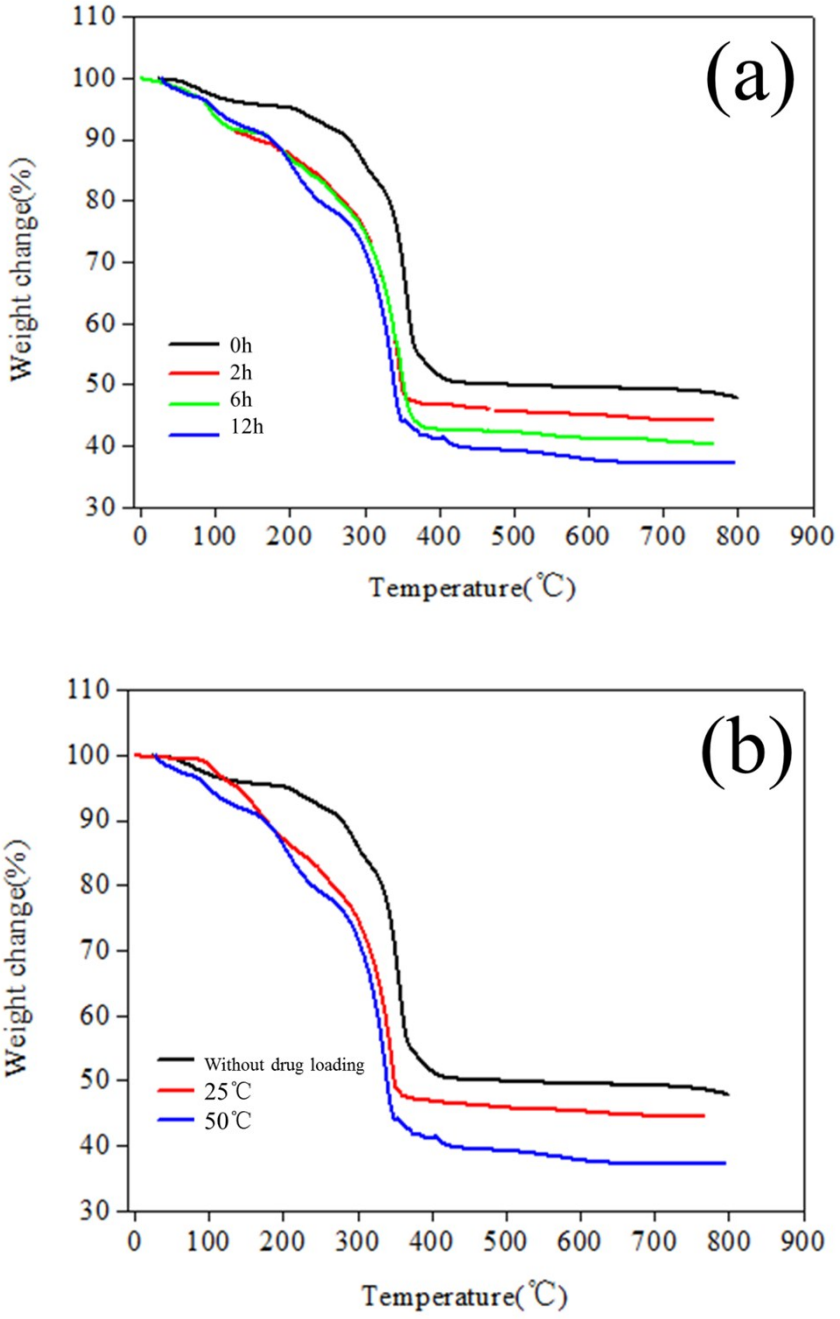

Figure S5 (a) The changes of drug loading performance with the time at 50 ºC. (b) The changes of drug loading performance with the temperature for 12 h.

Table S1 The loading capacity and release time of different materials for ibuprofen

Sample	Loading capacity	Release time
Microporous Silica[1]	150-200 mg/g	1-7 h
Mesoporous Carbons[2]	200-240 mg/g	0.8-5 h
SBA-15[3]	210 mg/g	4-7 h
Natural Halloysite Nanotubes[4]	120-170 mg/g	--
MIL-53[5]	280 mg/g	--
This Work	250 mg/g	7-15 h

Reference

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[2] X.F. Wang, P. Liu, Y. Tian, *Microporous Mesoporous Mater*, 2011, **142**, 334–340.

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