

## Electronic Supplementary Information

# Hollow Mesoporous Silica Nanosphere-Supported FePt Nanoparticles for Potential Theranostic Applications

*Chih-Yu Lin,<sup>1</sup> Wei-Peng Li,<sup>2</sup> Shao-Peng Huang,<sup>1</sup>, Chen-Sheng Yeh,<sup>2</sup> and Chia-Min Yang<sup>1,3\*</sup>*

1. Department of Chemistry, National Tsing Hua University, Hsinchu 30013, Taiwan
2. Department of Chemistry, National Cheng Kung University, Tainan 70101, Taiwan
3. Frontier Research Center on Fundamental and Applied Sciences of Matters, National Tsing Hua University, Hsinchu 30013, Taiwan

### CORRESPONDING AUTHOR FOOTNOTE:

Prof. Dr. Chia-Min Yang

e-mail: [cmyang@mx.nthu.edu.tw](mailto:cmyang@mx.nthu.edu.tw)

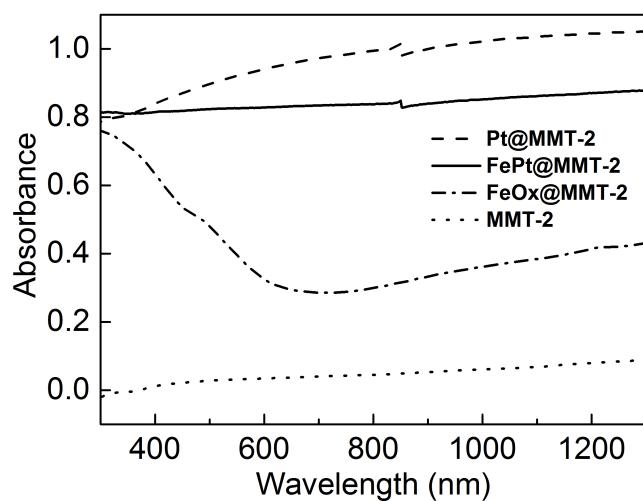
Tel: 886-3-5731282

Fax: 886-3-5165521

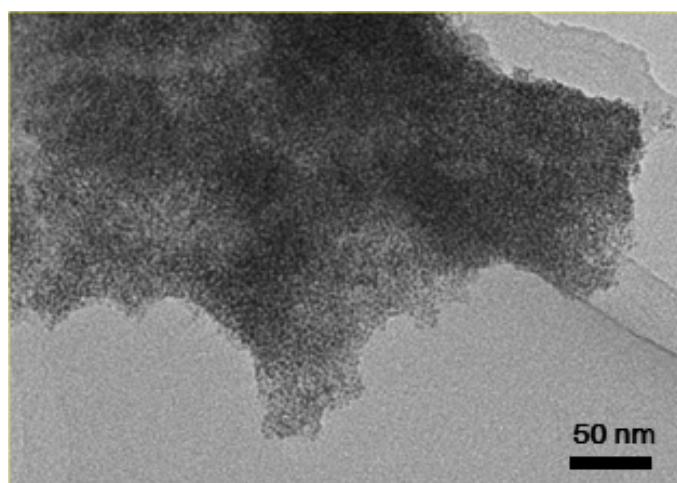
Table S1. Curve-fitting results of the EXAFS data at Pt  $L_3$ -edge and Fe  $K$ -edge<sup>a</sup>

edge	shell	R(Å)	CN	$\sigma^2$ (Å <sup>2</sup> )	$\Delta E$ (eV)
$L_3$ -edge	Pt-Fe	2.65	4.3	0.0124	6.3
	Pt-Pt	2.74	5.4	0.0057	3.9
$K$ -edge	Fe-O	2.00	1.5	0.0170	-11.3
	Fe-Pt	2.65	4.3	0.0081	-6.6
	Fe-Fe	2.83	0.4	0.0010	6.5

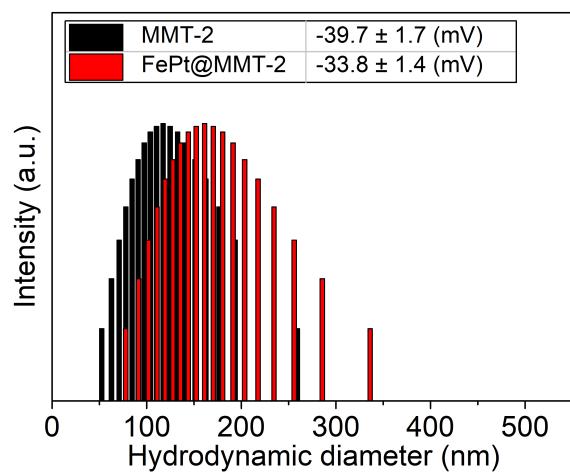
<sup>a</sup> R: interatomic distance; CN: coordination number;  $\sigma^2$ : Debye-Waller factor.



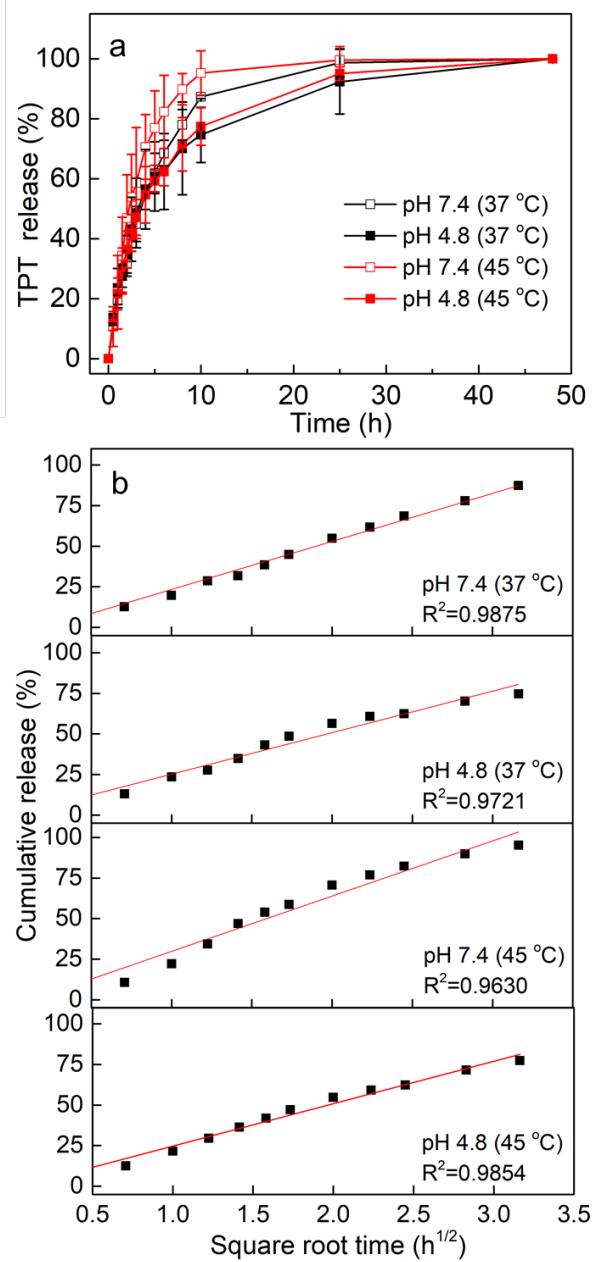
**Figure S1.** Solid-state UV-visible-NIR spectra of FePt@MMT-2 and reference samples.



**Figure S2.** TEM image of FePt@MMT-2 in pH 7.4 SBF after 24 hours.



**Figure S3.** Hydrodynamic diameter and zeta potential of MMT-2 and FePt@MMT-2.



**Figure S4.** TPT (a) releasing profiles in PBS and (b) the fitting results to the Higuchi model.