Electronic Supplementary Information

Hemin@metal-organic framework as Peroxidase-like Activity and Its Application to Glucose Detection

Feng-Xiang Qin[a], Shao-Yi Jia[a], Fei-Fei Wang[a], Song-Hai Wu[a], Jia Song[a] and Yong Liu[b*]

[a] School of Chemical Engineering and Technology, Tianjin University, Tianjin, P.R. China.

[b] School of Chemistry & Chemical Engineering, Tianjin University of Technology, Tianjin, P.R. China.

[*] To whom correspondence should be addressed. Fax/Tel: +86 022-87401961; E-mail: tjutliuyong@163.com (Y. Liu).

Table S1 The textural properties of materials

Material	S_{BET}[a] (m^2/g)	$S_{Langmuir}$[b] (m^2/g)	Total Pore Volume (cm^3/g)
MIL-101(Al)-NH_2	1608.3	2211.8	0.879
H@M	407.6	556.6	0.429
MIL-53(Al)-NH_2	464.5	650.9	0.982

[a] S_{BET} is the BET specific surface area. [b] $S_{Langmuir}$ is langmuir surface area.

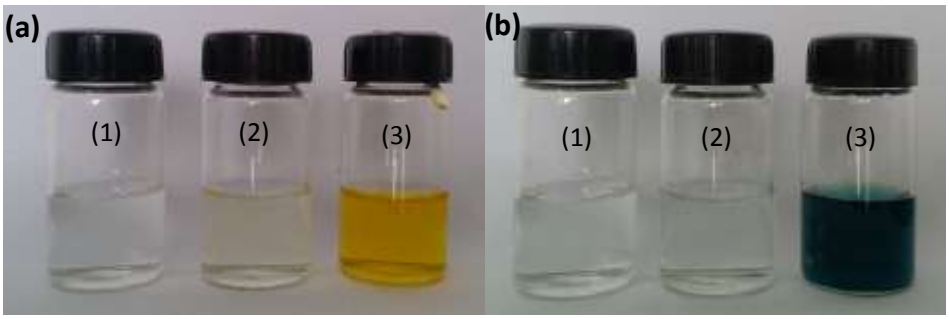

Fig. S1 Images of oxidation color reaction of 10 mM OPD (a), and 0.6 mM ABTS (b) by 10 mM H_2O_2 after catalyzing by H@M hybrid material at pH 5.0 citrate buffer solution after reaction for 10 min. (1) buffer solution; (2) no catalyst; (3) H@M hybrid material.

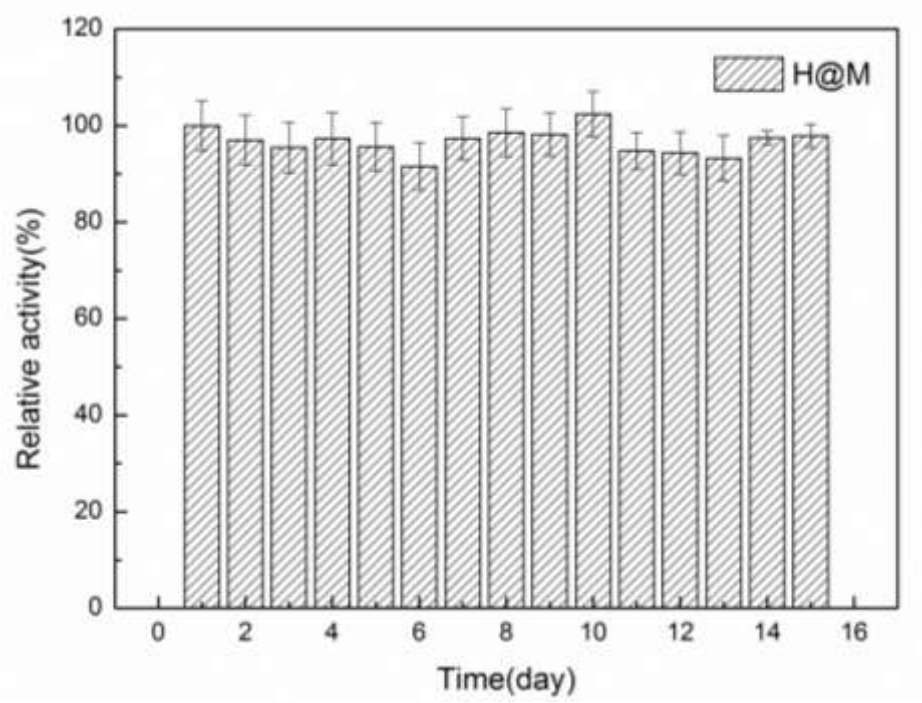

Fig. S2 The storage stability of the as-prepared H@M hybrid material

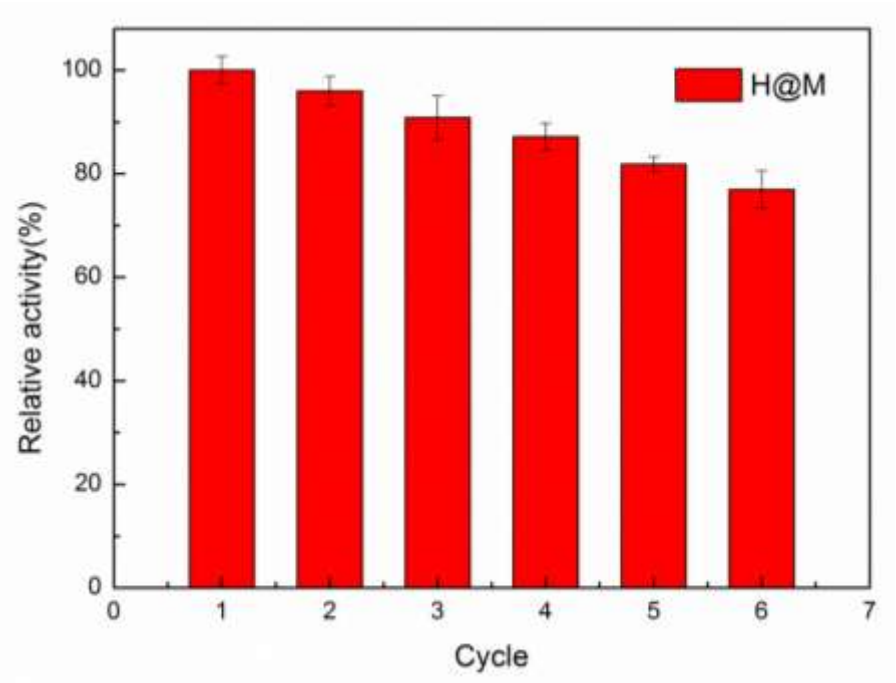

Fig. S3 Batch-to-batch reproducibility study of the as-prepared H@M hybrid material over various cycles using identical reaction conditions, each cycle has three duplicate determinations. Reaction condition: 20 μg/mL H@M, 0.8 mM TMB, 10 mM H_2O_2, 50 mM citrate buffer, pH 5.0, reaction time 10min.