Supplementary Information

Optimizing the Metal Ion Release and Antibacterial Activity of ZnO@ZIF-8 by Modulating its Synthesis Method

Mona Kalati, Kamran Akhbari*

School of Chemistry, College of Science, University of Tehran, Tehran, Iran.

P.O. Box 14155-6455; Tel.: +98 21 61113734; fax: +98 21 66495291. E-mail address:

akhbari.k@khayam.ut.ac.ir

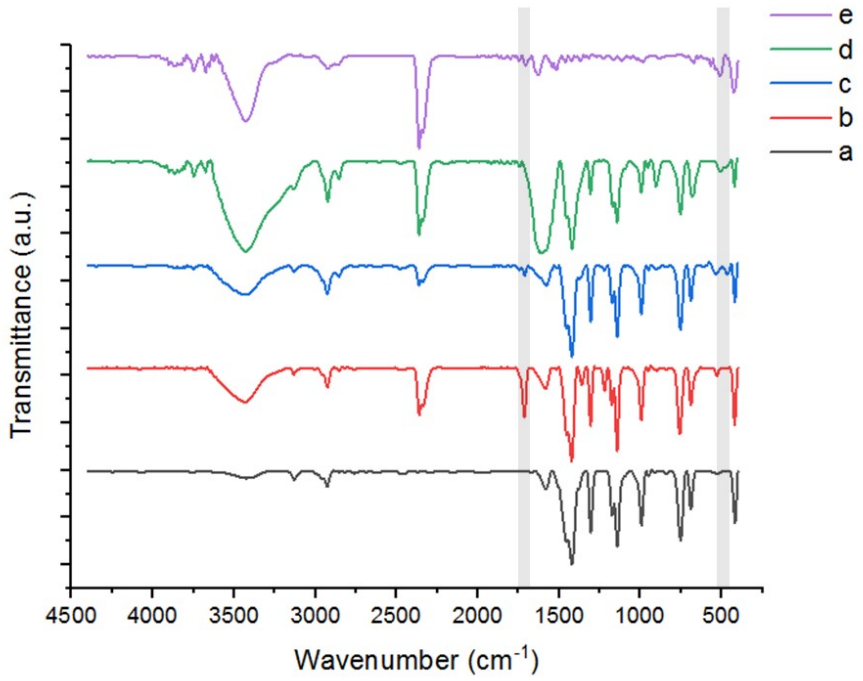

Figure S1. FT-IR spectra of pure guest free ZIF-8 (a), $[Zn(CH_3COO)_2.2H_2O]_{0.227}$@ZIF-8 (b), $[ZnO]_{0.181}$@ZIF-8 (c), $[ZnO]_{0.09}$@ZIF-8 (d) and ZnO (e).

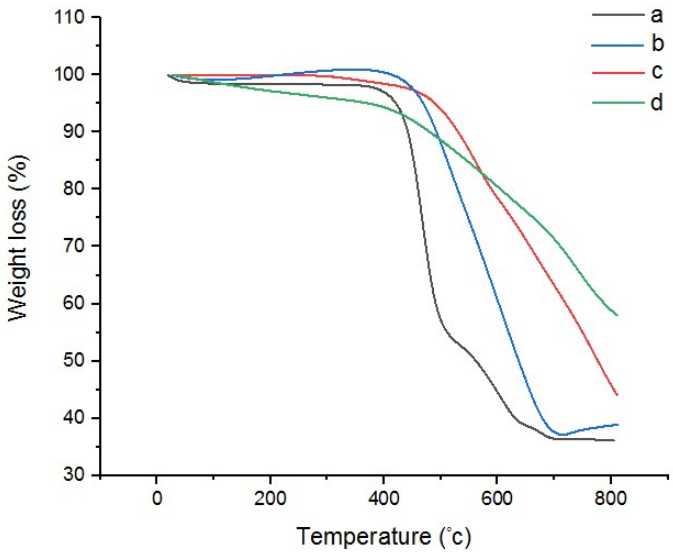

Figure S2. TGA curves of ZIF-8 (a), $[Zn(CH_3COO)_2.2H_2O]_{0.227}$@ZIF-8 (b), $[ZnO]_{0.181}$@ZIF-8 (c) and $[ZnO]_{0.09}$@ZIF-8 (d).

Table S1 The special surface area and mean pore diameter of ZIF-8, $[Zn(CH_3COO)_2.2H_2O]_{0.227}$@ZIF-8, $[ZnO]_{0.181}$@ZIF-8 and $[ZnO]_{0.09}$@ZIF-8.

Sample	$a_{s,BET}$	Mean pore diameter
ZIF-8	1529.9 m^2g^{-1}	2.0137 nm
$[Zn(CH_3COO)_2.2H_2O]_{0.227}$@ZIF-8	1469.7 m^2g^{-1}	1.7930 nm
$[ZnO]_{0.181}$@ZIF-8	1463.8 m^2g^{-1}	1.8248 nm
$[ZnO]_{0.09}$@ZIF-8	147 m^2g^{-1}	3.5914 nm