

Supplementary information

**Embedding an Extraordinary value of Gemifloxacin Antibiotics in ZIF-8 Framework with
One-step Synthesis and Measurement of Its H₂O₂-Sensitive Release and Potency against
Infectious Bacteria**

Sajjad Soltani, 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@ut.ac.ir

Synthesis of ZIF-8

The solution of $\text{Zn}(\text{NO}_3)_2 \cdot 6\text{H}_2\text{O}$ (0.20g in 5mL H_2O) was added to the solution of the 2-methylimidazole (0.332g in 12mL H_2O + 0.3 mL TEA). After stirring the solution for 90 s, the precipitate remained motionless for 40 min. product was filtrated and washed three time with 10 mL distilled water and dried overnight in a vacuum oven.

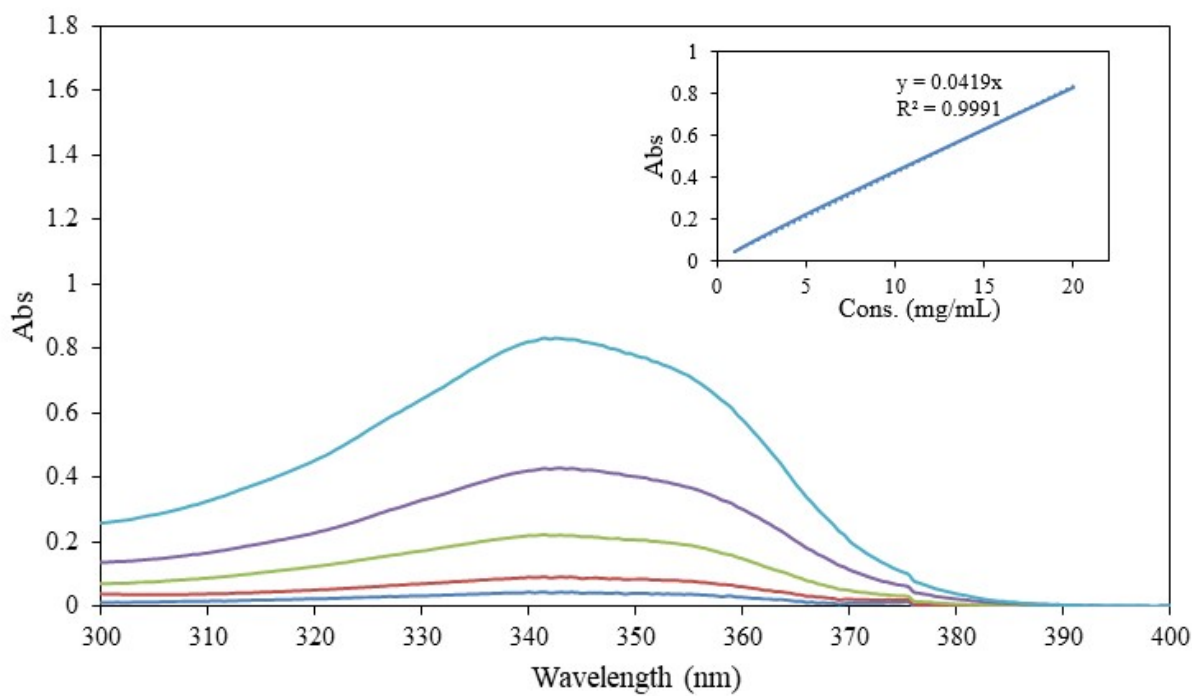


Figure S1. Calibration plot of gemifloxacin (GEM).

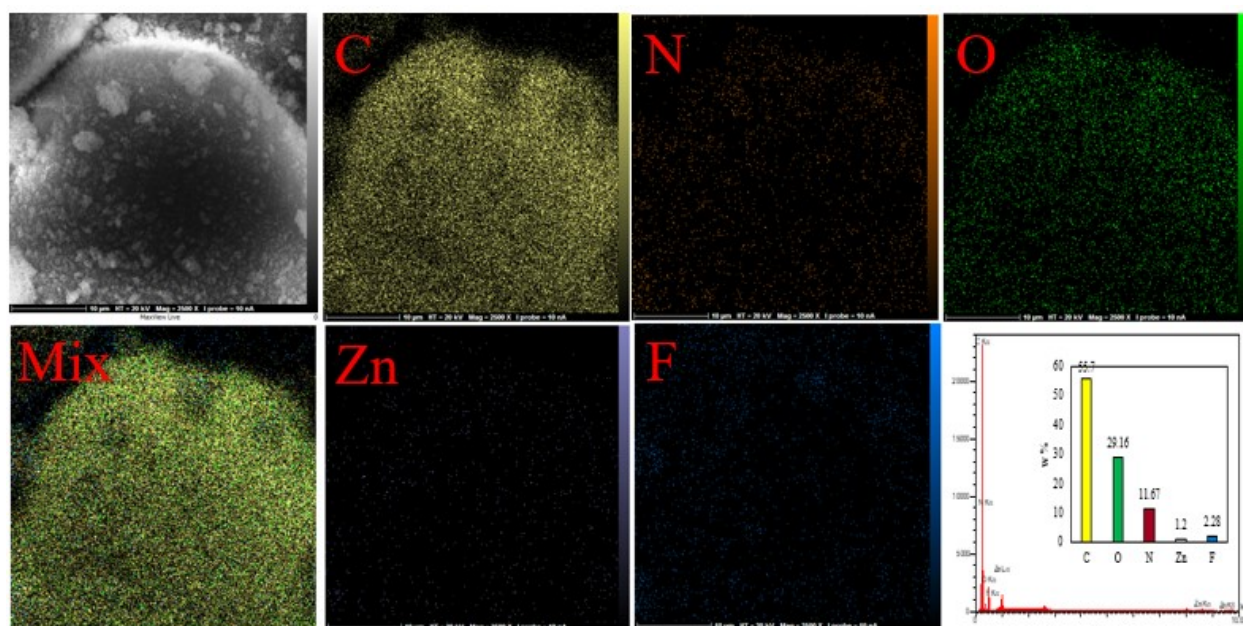


Figure S2. EDAX analysis of GEM@ZIF.

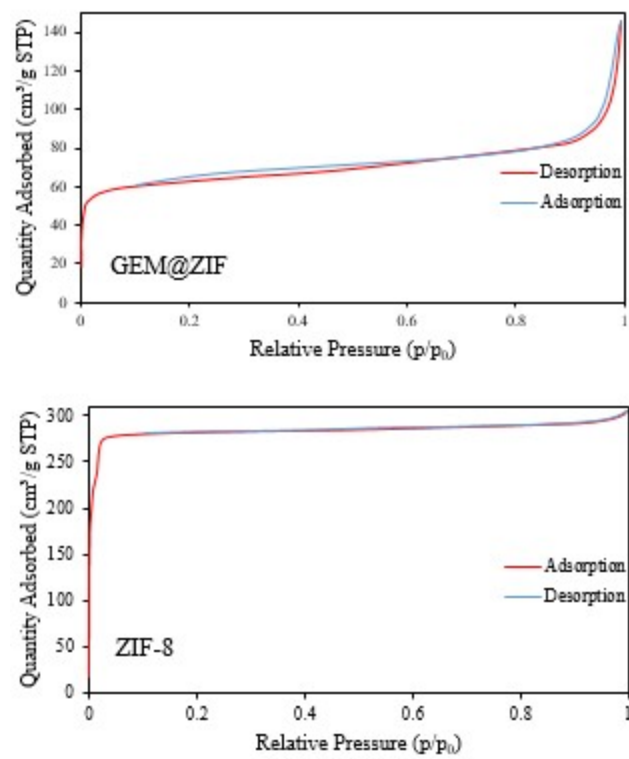


Figure S3. Nitrogen adsorption and desorption isotherms of GEM@ZIF and ZIF-8.

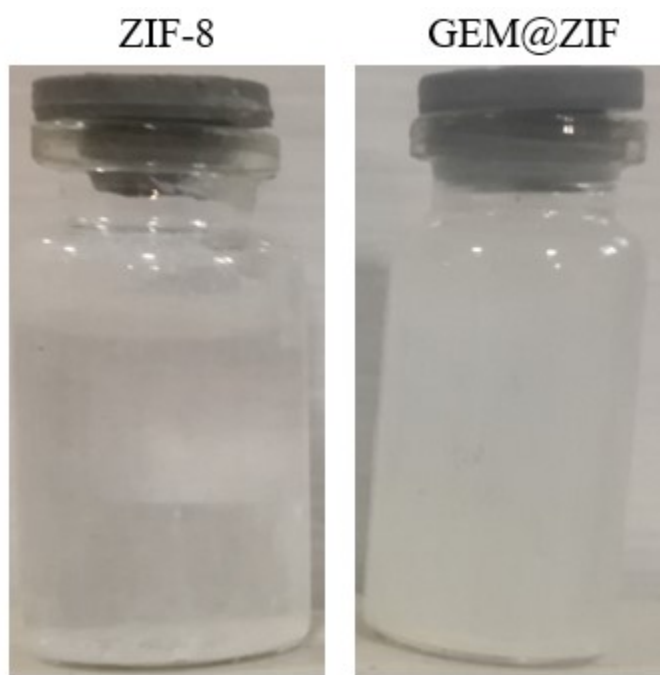


Figure S4. Comparison of dispersion of GEM@ZIF and ZIF-8.