

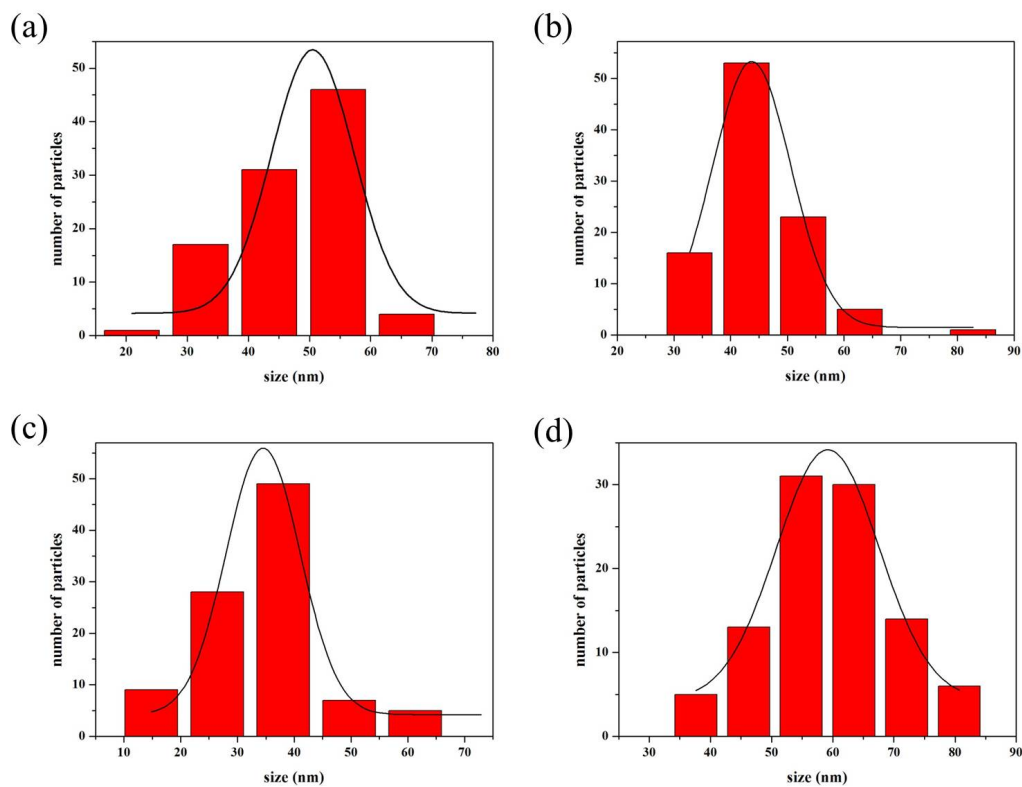
**Supporting Information for**

**Surfactant-Assisted Synthesis of Nanoscale ZIF-8 in  
Aqueous Solution via Microwave Irradiation**

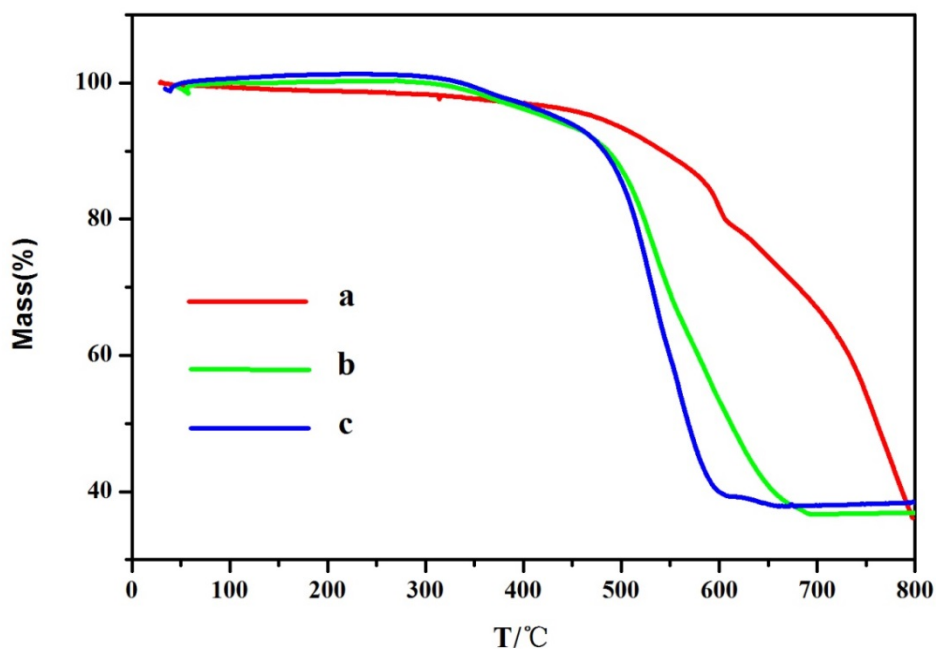
by

Tiantian Xing, Yongbing Lou\*, Qilong Bao, Jinxi Chen\*

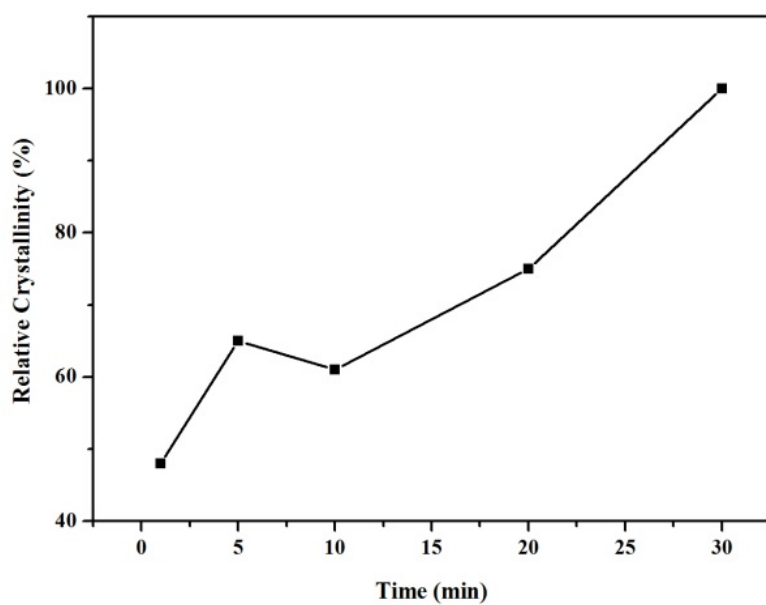
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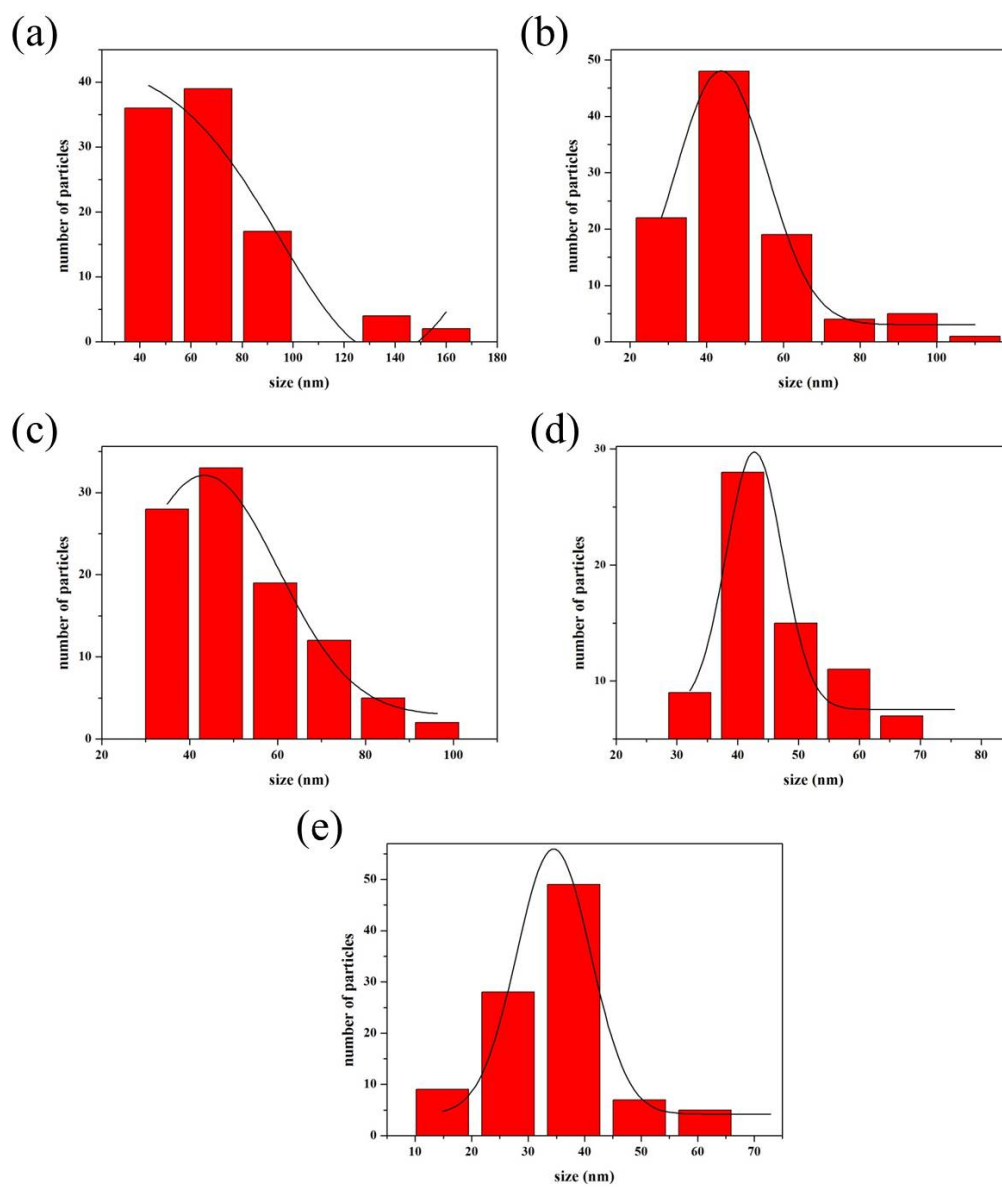
**Fig. S1.** Size distributions of ZIF-8 crystals prepared by microwave irradiation at different P123/Zn<sup>2+</sup> molar ratios: (a) 0.005, (b) 0.01, (c) 0.02, (d) 0.07.



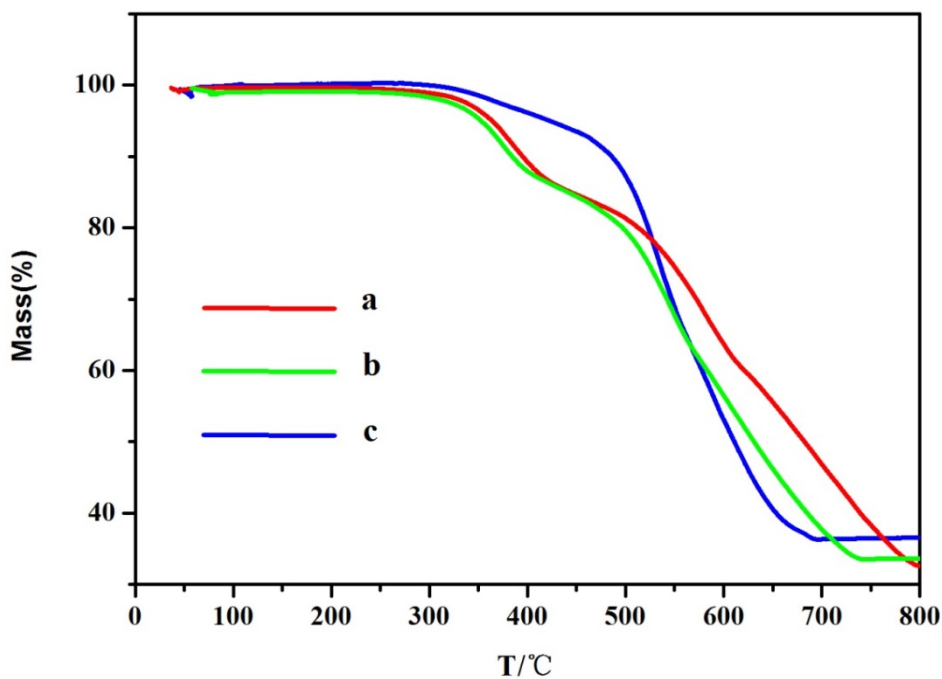
**Fig. S2.** TGA curves for ZIF-8 nanocrystals prepared by microwave irradiation at different P123/Zn<sup>2+</sup> molar ratios: (a) 0.01, (b) 0.02, (c) 0.07.



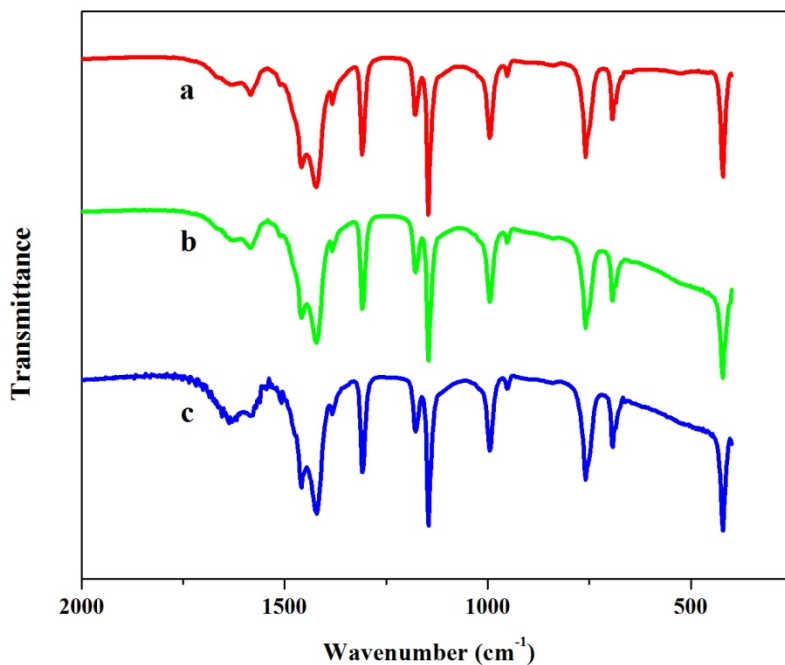
**Fig. S3** Relative crystallinity of ZIF-8 samples prepared with microwave irradiation as a function of irradiation time (P123/ $\text{Zn}^{2+}$  molar ratio of 0.02).



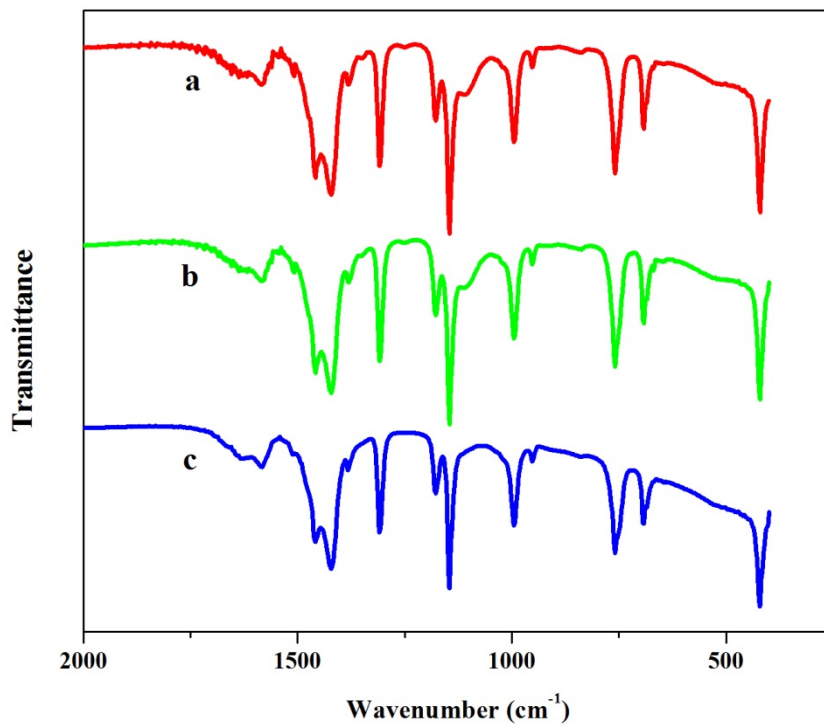
**Fig. S4.** Size distributions of ZIF-8 crystals prepared with microwave irradiation as a function of irradiation time (P123/Zn<sup>2+</sup> molar ratio of 0.02): (a) 1 min, (b) 5 min, (c) 10 min, (d) 20 min, (e) 30 min.



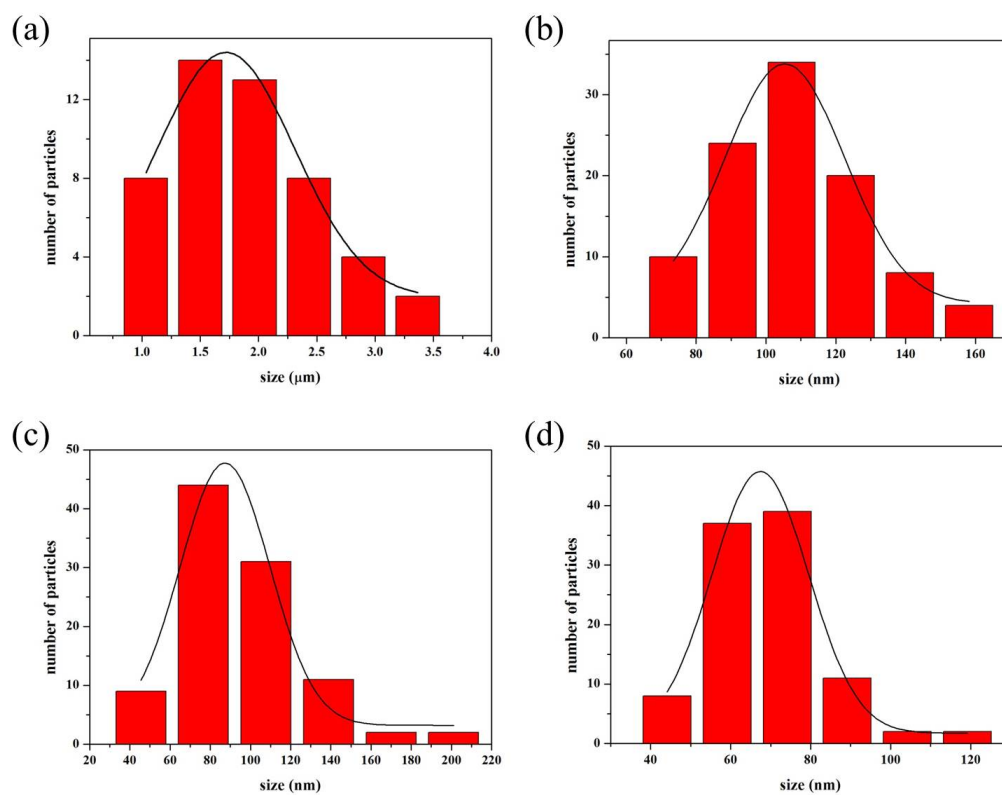
**Fig. S5.** TGA curves for ZIF-8 nanocrystals prepared with microwave irradiation as a function of irradiation time (P123/ $\text{Zn}^{2+}$  molar ratio of 0.02): (a) 1 min, (b) 10 min, (c) 30 min.



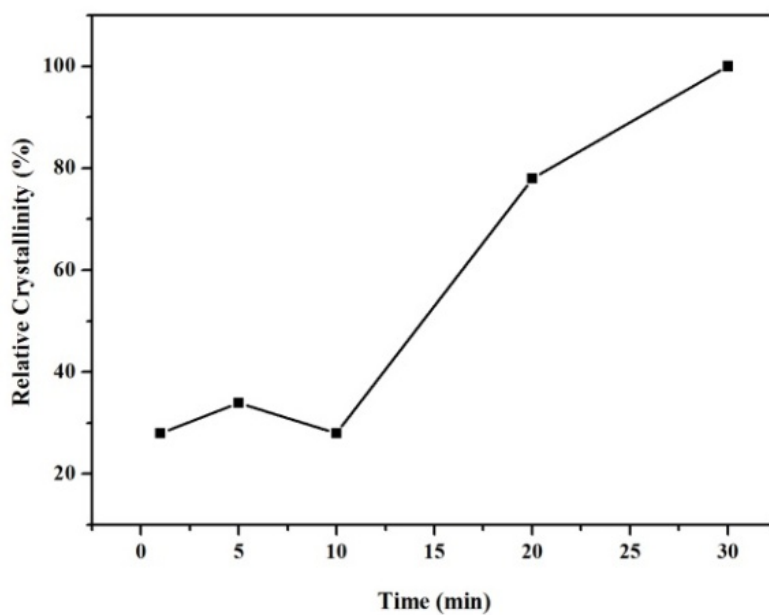
**Fig. S6.** FTIR spectra of ZIF-8 nanocrystals prepared by microwave irradiation at different P123/ $\text{Zn}^{2+}$  molar ratios: (a) 0.01, (b) 0.02, (c) 0.07.



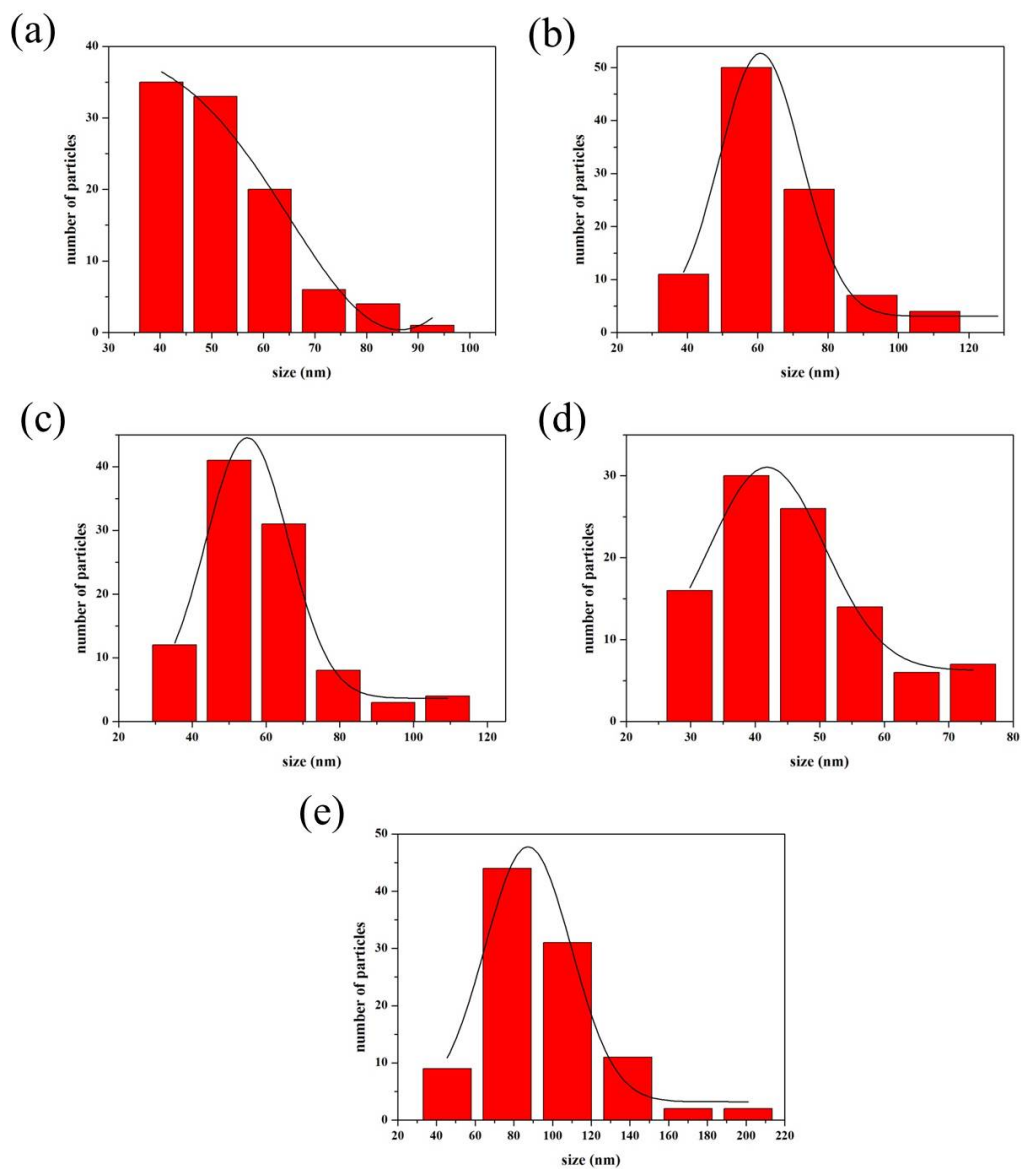
**Fig. S7.** FTIR spectra of ZIF-8 nanocrystals prepared with microwave irradiation as a function of irradiation time (P123/Zn<sup>2+</sup> molar ratio of 0.02): (a) 1 min, (b) 10 min, (c) 30 min.



**Fig. S8.** Size distributions of ZIF-8 crystals prepared by microwave irradiation at different F127/Zn<sup>2+</sup> molar ratios: (a) 0.0007, (b) 0.004, (c) 0.007, (d) 0.01.



**Fig. S9** Relative crystallinity of ZIF-8 samples prepared with microwave irradiation as a function of irradiation time (F127/ $\text{Zn}^{2+}$  molar ratio of 0.007).



**Fig. S10.** Size distributions of ZIF-8 crystals prepared with microwave irradiation as a function of irradiation time (F127/ $\text{Zn}^{2+}$  molar ratio of 0.007): (a) 1 min, (b) 5 min, (c) 10 min, (d) 20 min, (e) 30 min.