Electronic Supplementary Material (ESI) for RSC Advances.

Supplementary Information

Surface Defection Reduces Cytotoxicity of Zn(2-methylimidazole)$_2$ (ZIF-8) without Compromising its Drug Delivery Capacity

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The standard concentration of hydroxyurea was determined by a UV-Vis spectrometer. 30, 13, 5, 2, and 0.2 mg of hydroxyurea were easily dissolved in 100 mL PBS at 37 ºC to get five different concentrations of hydroxyurea solutions. UV-Vis spectra of different solutions were shown in Figure S1a, integrated areas were then calculated to obtain intensities. Figure S1b showed the relationship between concentration and intensity of five solutions. This standard curve was well fitted by linear fit with the correlation coefficient of 0.99997. Thus we used this standard curve to calculate the concentration of hydroxyurea from the UV-Vis spectrum integrated area of a sample.

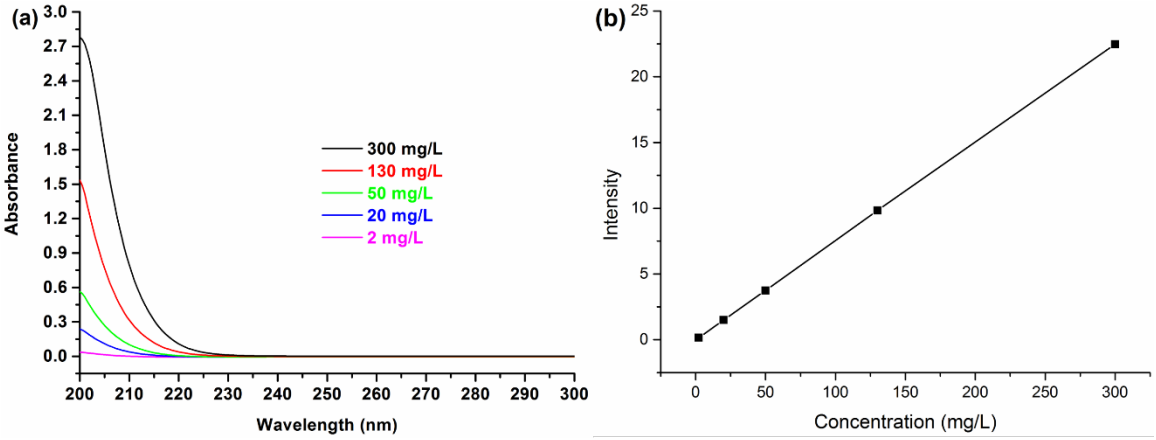

Figure S1. (a) UV-Vis spectra of hydroxyurea solutions with different concentrations. (b) The standard curve between concentration and intensity of hydroxyurea solutions.

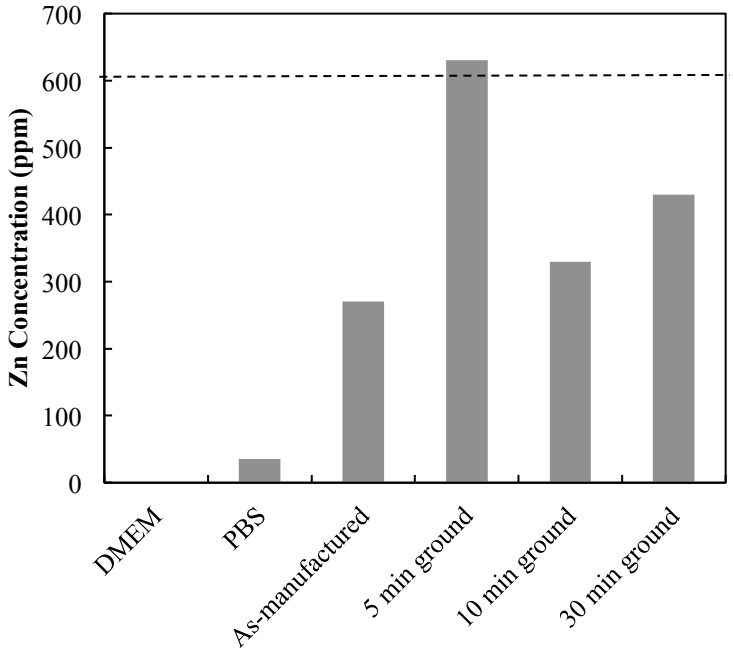

Figure S2. ICP-OES of PBS supernatant after 72 hours exposure to particles.

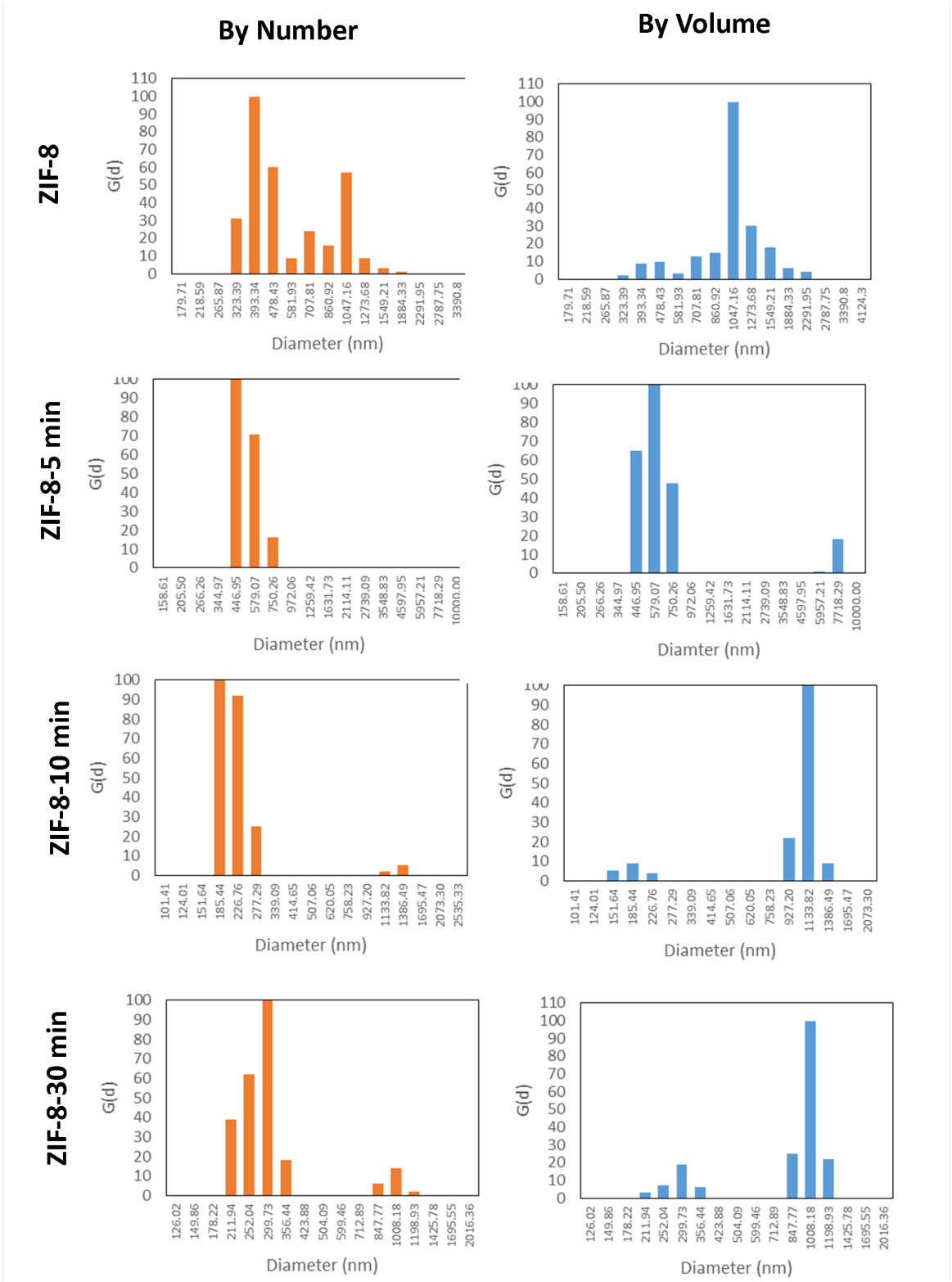

Figure S3. Particle size distribution determined using dynamic light scattering. G(d) represents the relative percentage contribution of the size range. Obviously, The particle size of ZIF-8 calculated by volume was firstly decreased and then increased because the particle was firstly damaged and then stuck together with increasing ball-milling time.