

Article

Silica Nanoparticles-Induced Lysozyme Crystallization: Effects of Particle Sizes

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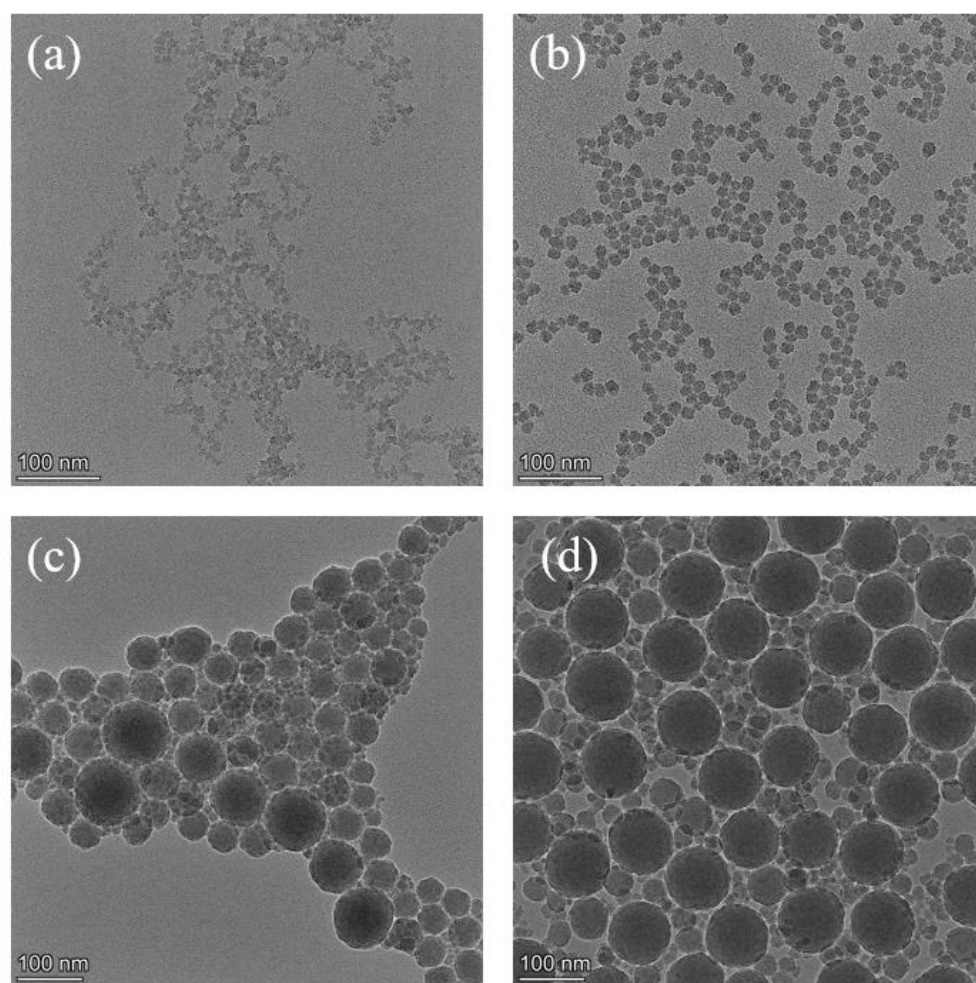


Figure S1. Transmission electron microscopy images of SNP with different particle sizes. (a): 5 nm SiO₂, (b): 15 nm SiO₂, (c): 50 nm SiO₂, (d): 100 nm SiO₂.

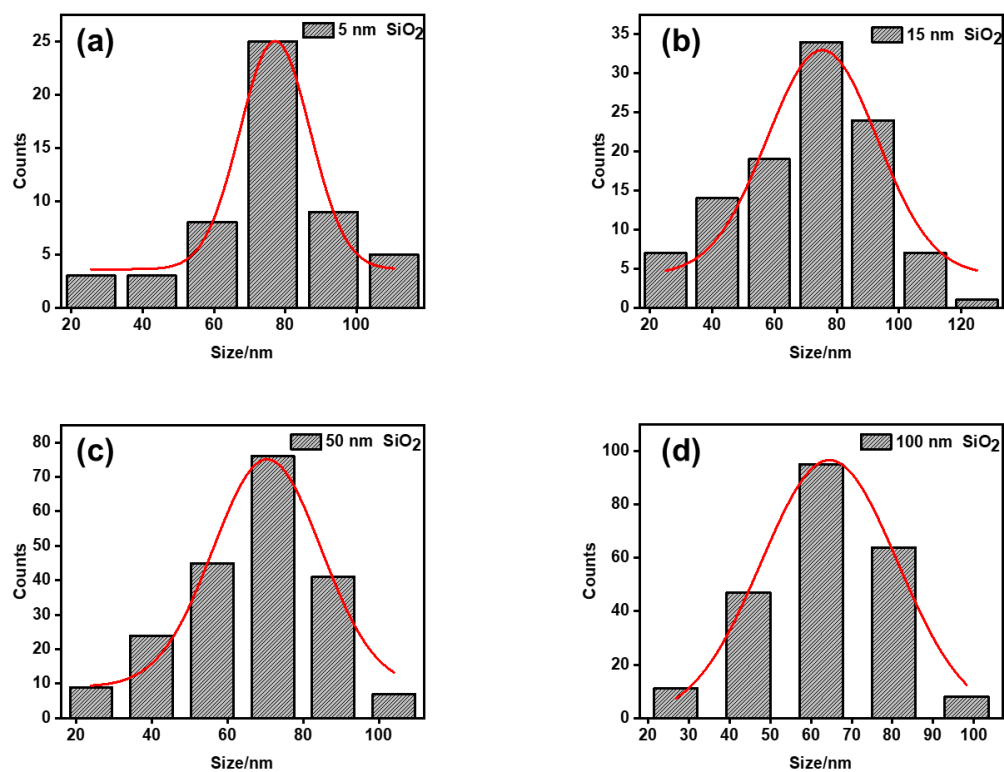


Figure S2. Crystal size distribution of 0.05 M, pH 4.5 sodium acetate buffer solution, 3 wt. % sodium chloride solution, 15 mg/mL lysozyme at 4 °C for 48 h. (a) 5 nm SiO₂, (b) 15 nm SiO₂, (c) 50 nm SiO₂, (d) 100 nm SiO₂.

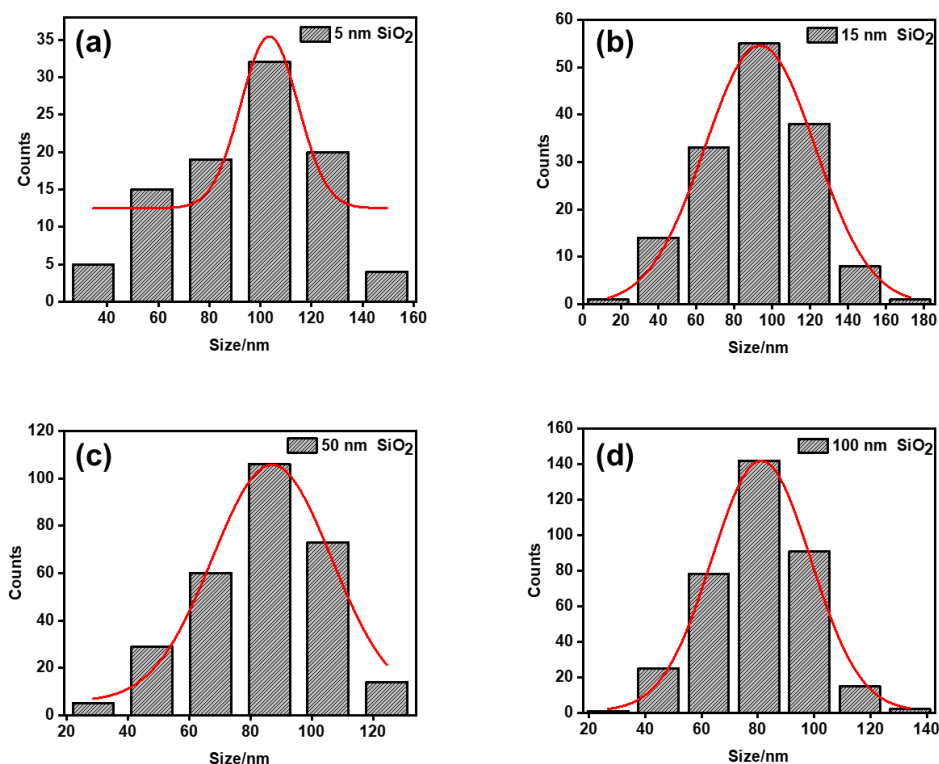


Figure S3. Crystal size distribution of 0.05 M, pH 4.5 sodium acetate buffer solution, 3 wt. % sodium chloride solution, 15 mg/mL lysozyme at 4 °C for 72 h. (a) 5 nm SiO₂, (b) 15 nm SiO₂, (c) 50 nm SiO₂, (d) 100 nm SiO₂.

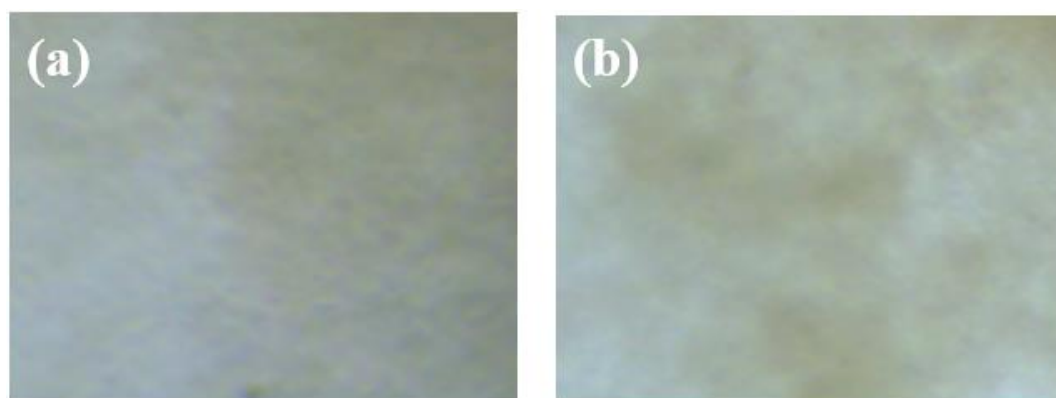


Figure S4. (a): Corresponding microscope image after mixing 1 mg/mL 50 nm SiO₂ and 20 mg/mL LSZ. (b): Corresponding microscope image after mixing 1 mg/mL 100 nm SiO₂ and 20 mg/mL LSZ.

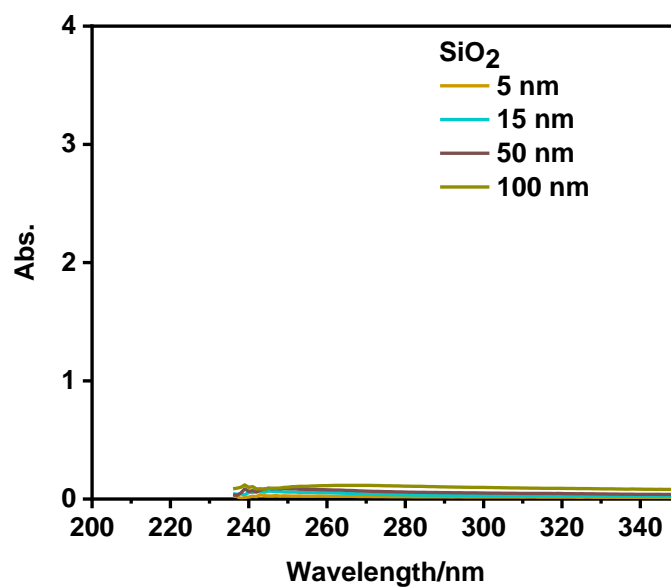


Figure S5. UV spectra of silica with different particle sizes.

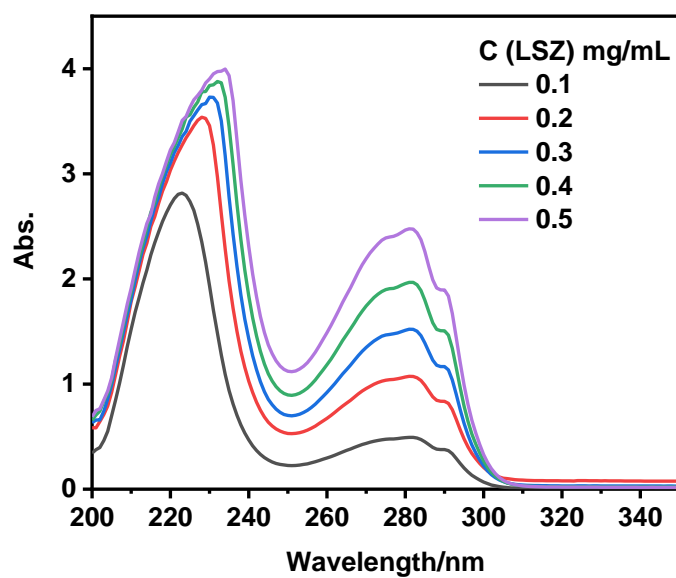


Figure S6. UV spectra of lysozyme at different concentrations.

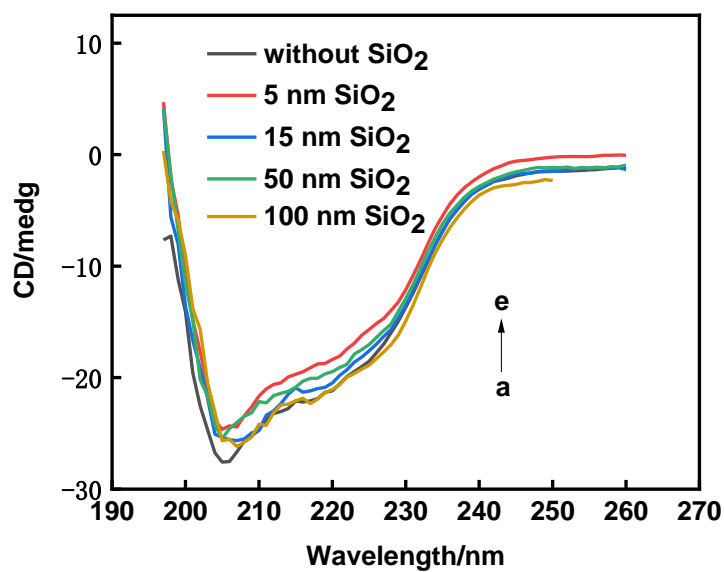


Figure S7. CD spectra of lysozyme in the presence and absence of SNP. From top to bottom: a, no SNP, b, 0.1 mg/mL 5 nm SiO₂, c, 0.1 mg/mL 15 nm SiO₂, d, 0.1 mg/mL 50 nm SiO₂, e, 0.1 mg/mL 100 nm SiO₂.