

Mesoporous Organosilica Nanoparticles with Tetrasulphide Bond to Enhance Plasmid DNA Delivery

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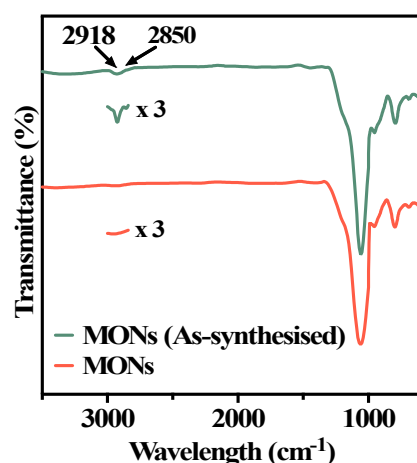


Figure S1. FTIR spectrum for MONs before and after acid extraction.

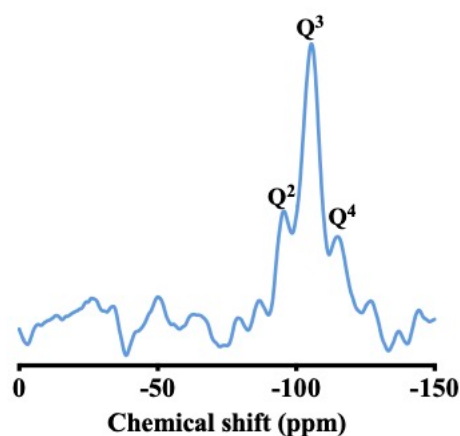


Figure S2. Solid-state ²⁹Si MAS NMR spectrum of MSNs.

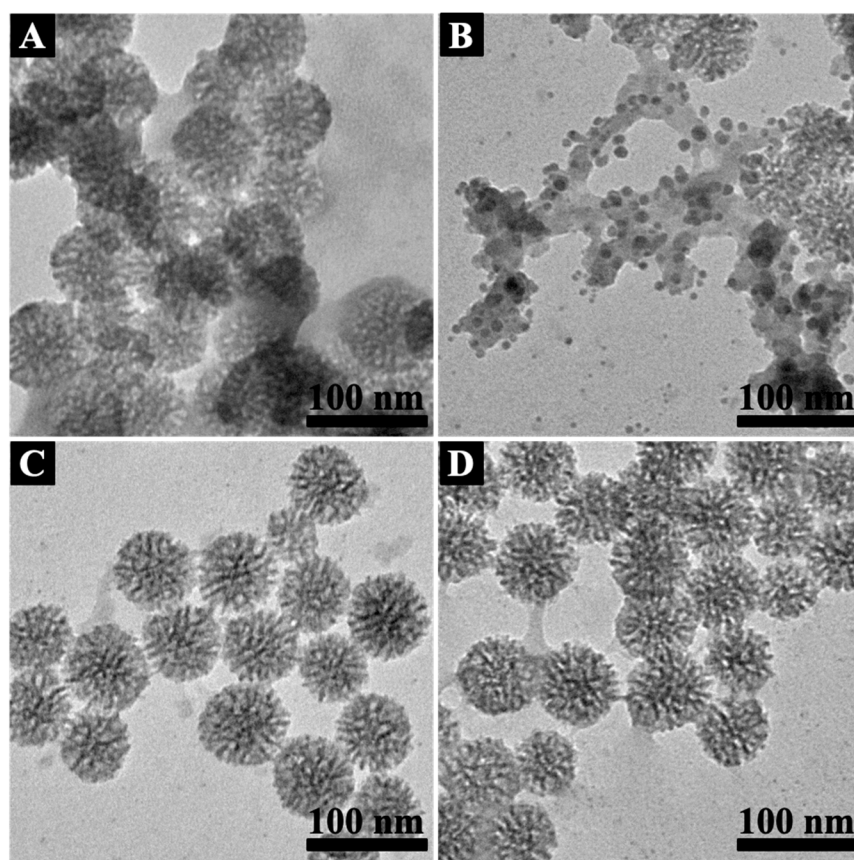


Figure S3. Degradation test of MONs (A-B) and MSNs (C-D) tested at 1 mM (A, C) and 10 mM (B, D) GSH solution for 48 h in the presence of serum.

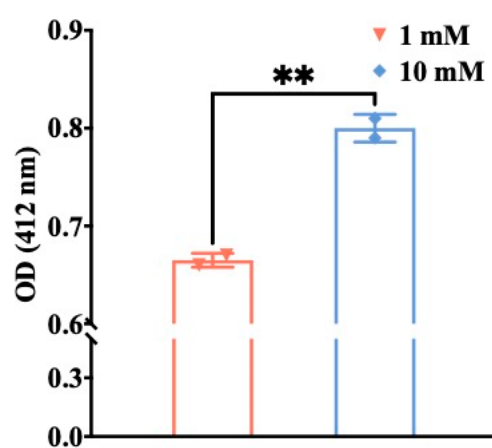


Figure S4. Relative quantification of -SH groups (OD 412 nm) after incubation of MONs in 1 mM and 10 mM GSH solution for 48 h in the presence of serum.

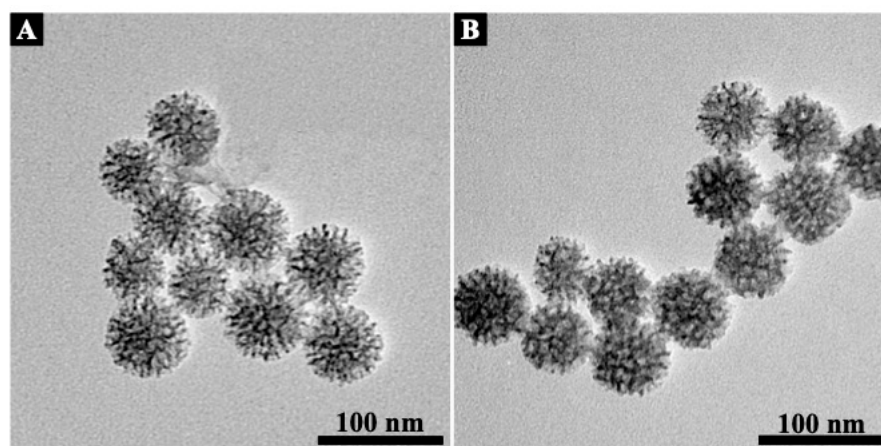


Figure S5. TEM images of PEI-MONs (A) and PEI-MSNs (B).

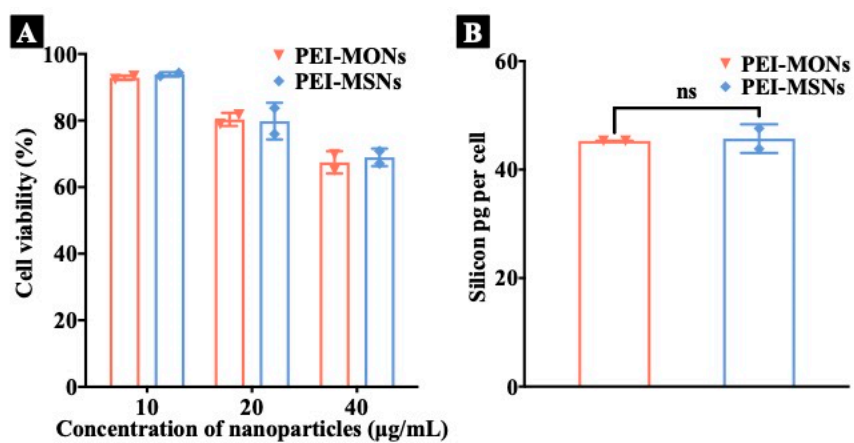


Figure S6. (A) Cell viability of DC2.4 cells after incubation with PEI-NPs for 24 h. (B) Cellular uptake of DC2.4 cells incubated with PEI-NPs for 4 h measured by ICP-OES.

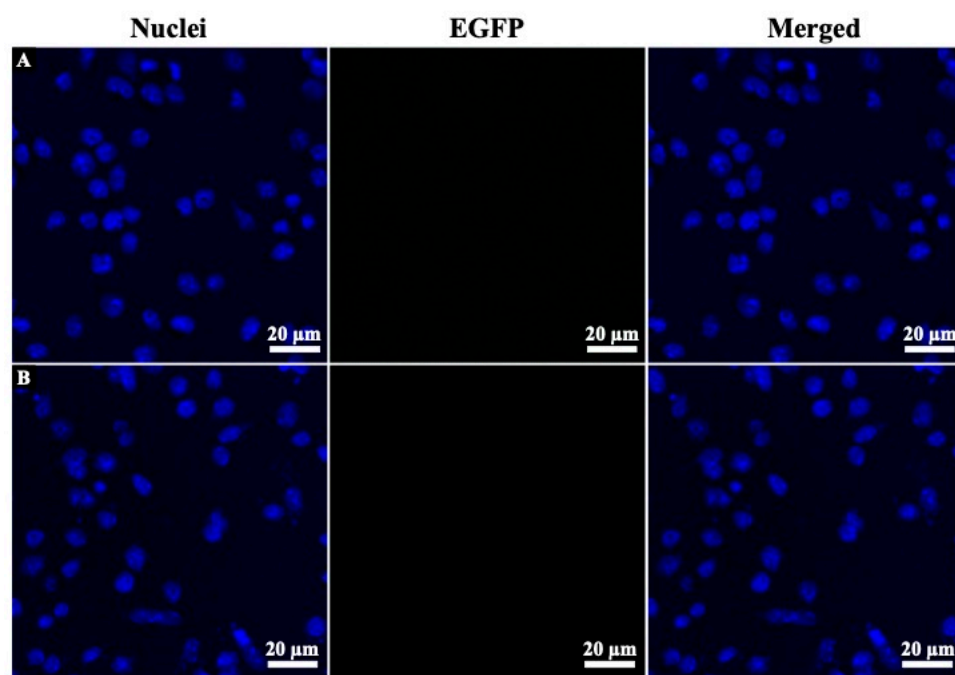


Figure S7. Confocal images of DC2.4 cells incubated with PBS (A) and bare EGFP pDNA (B).

Table S1. Composition properties of MONs and MSNs before and after PEI modification

Sample name	Nitrogen (%)	Carbon (%)	Sulphur (%)
MONs	0	8.5	12.6
MSNs	0	0	0
PEI-MONs	5.8	19.5	9.4
PEI-MSNs	5.7	12.3	0