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## SUPPORTING INFORMATION

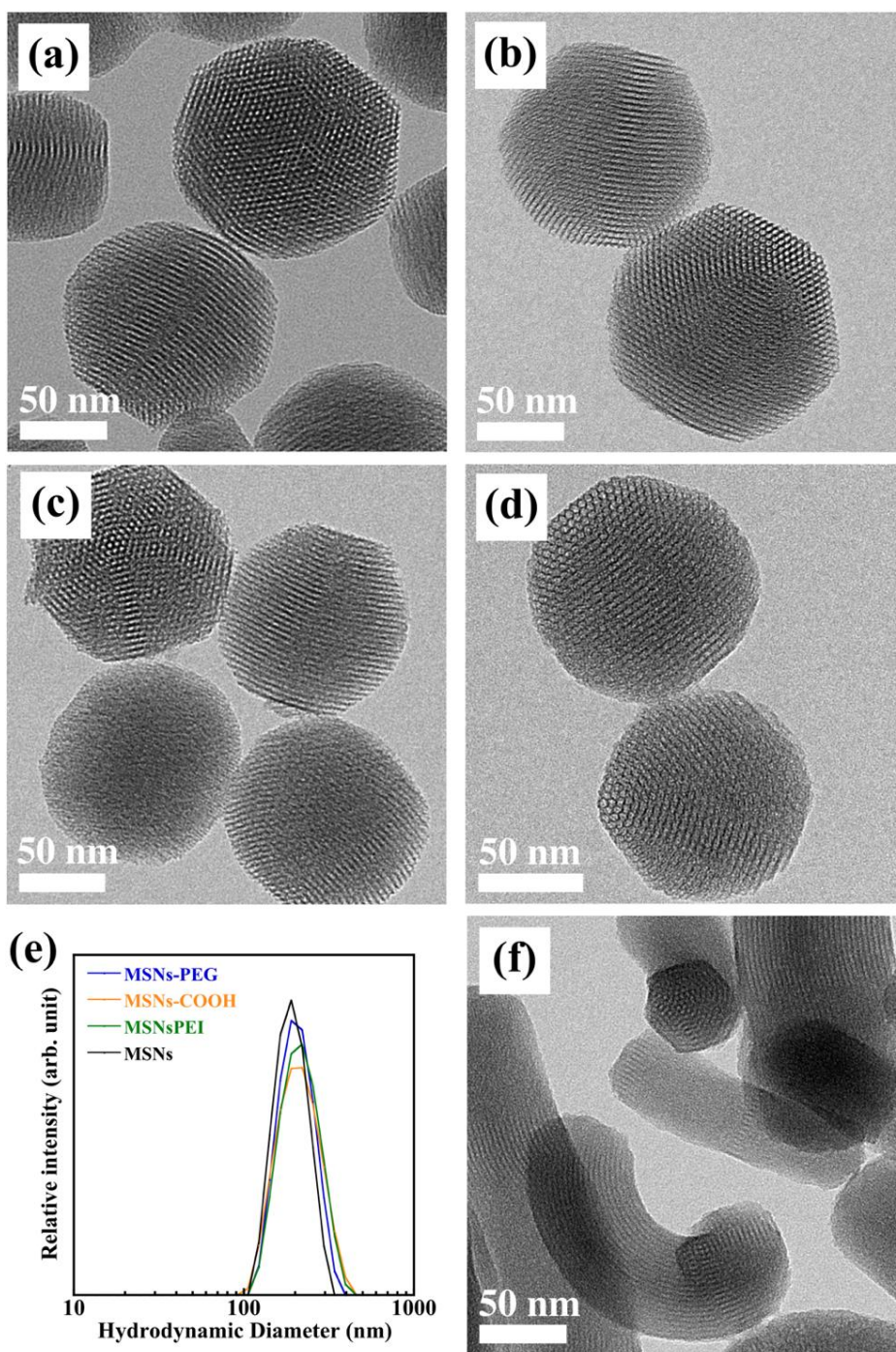
### **Loading of Cisplatin into Mesoporous Silica Nanoparticles: Effect of Surface Functionalization**

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Florence Baras<sup>†</sup> and Frédéric Bouyer<sup>†,\*</sup>

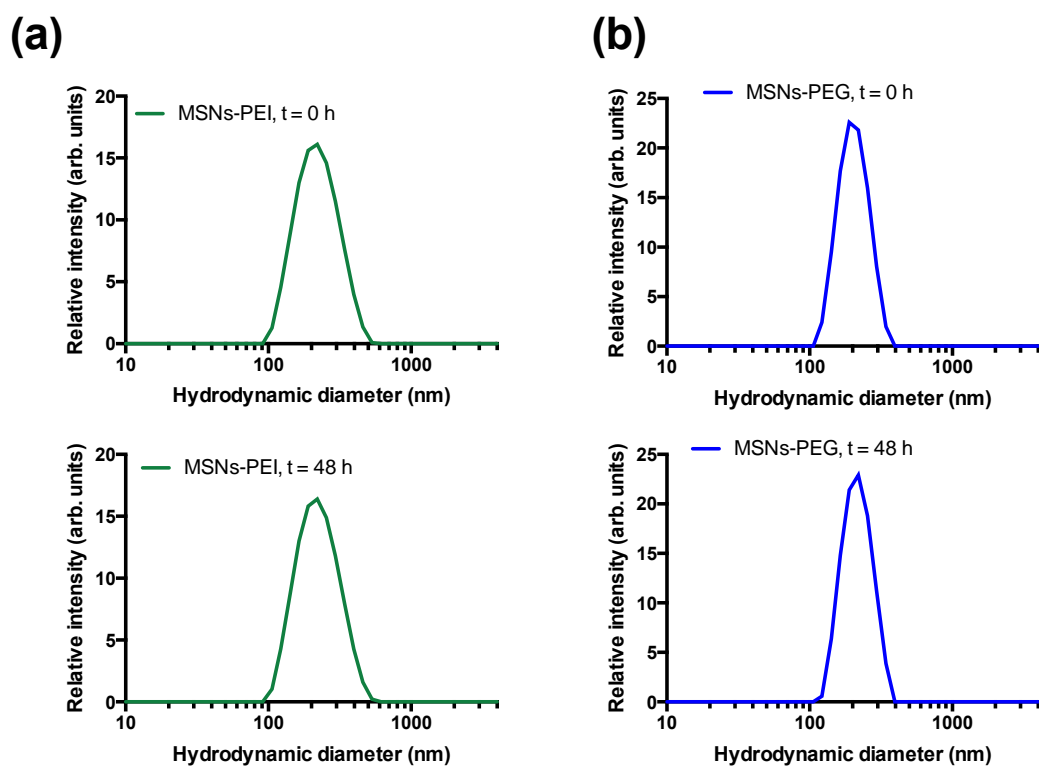
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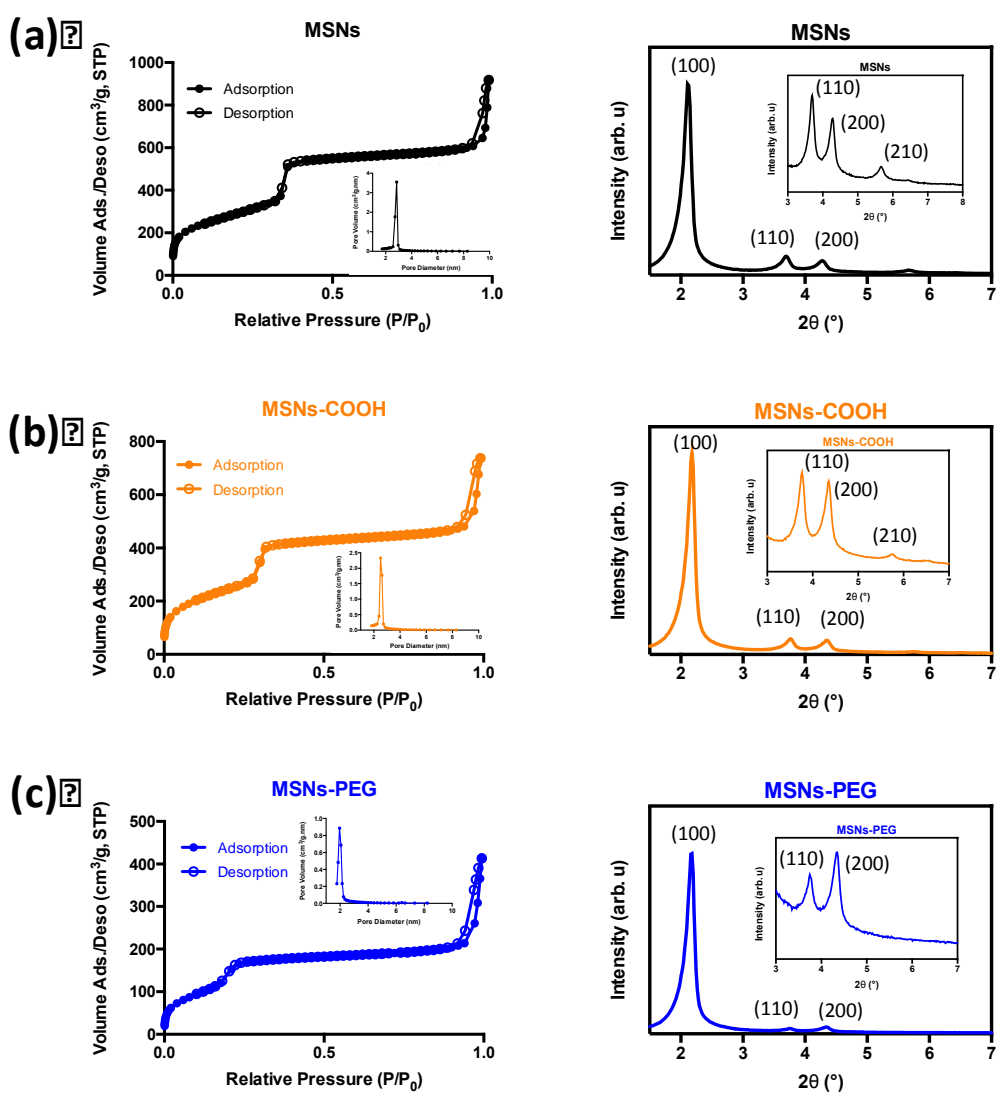
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**Figure S1:** High magnification TEM images of (a) pure MSNs (MSNs), (b) MSNs-COOH, (c) MSNs-PEI, (d) MSNs-PEG, (e) the corresponding size distributions obtained by DLS and (f) high magnification TEM image of MSNs-SH.



**Figure S2:** Size distribution of (a) MSNs-PEI and (b) MSNs-PEG dispersed in 1 mM NaCl at t=0 and after 48 h.



**Figure S3:** Left side: BET isotherms and BJH pore distributions, right side: XRD patterns. (a) MSNs, (b) MSNs-COOH, (c) MSNs-PEG, (d) MSNs-PEI and (d) MSNs-SH.

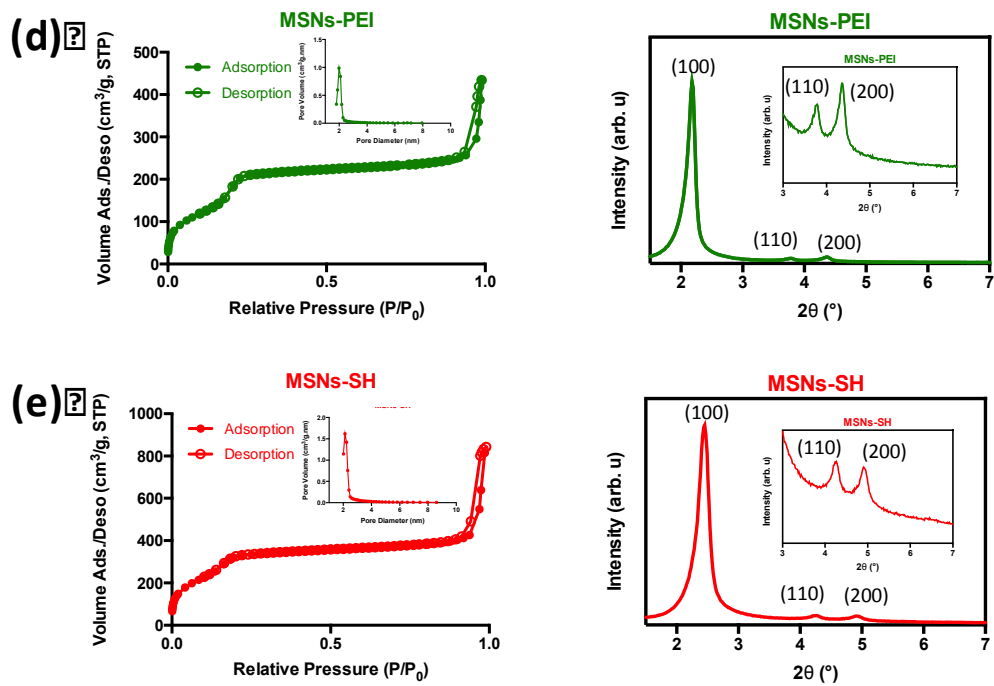
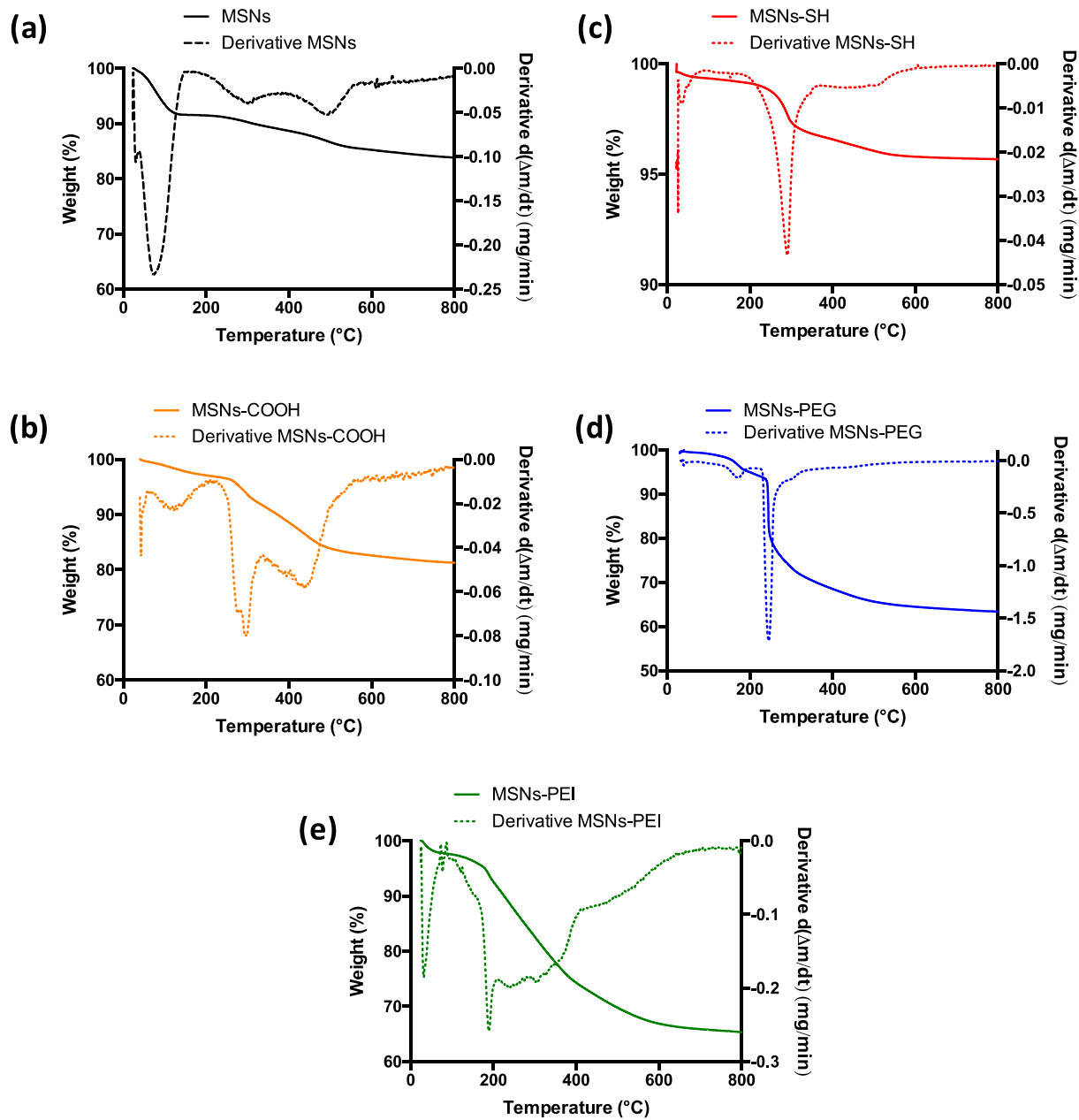
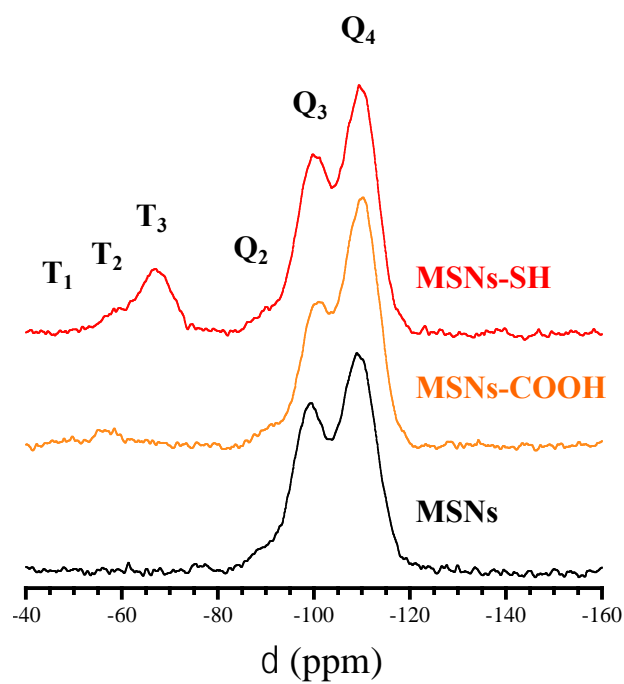


Figure S3: continued.

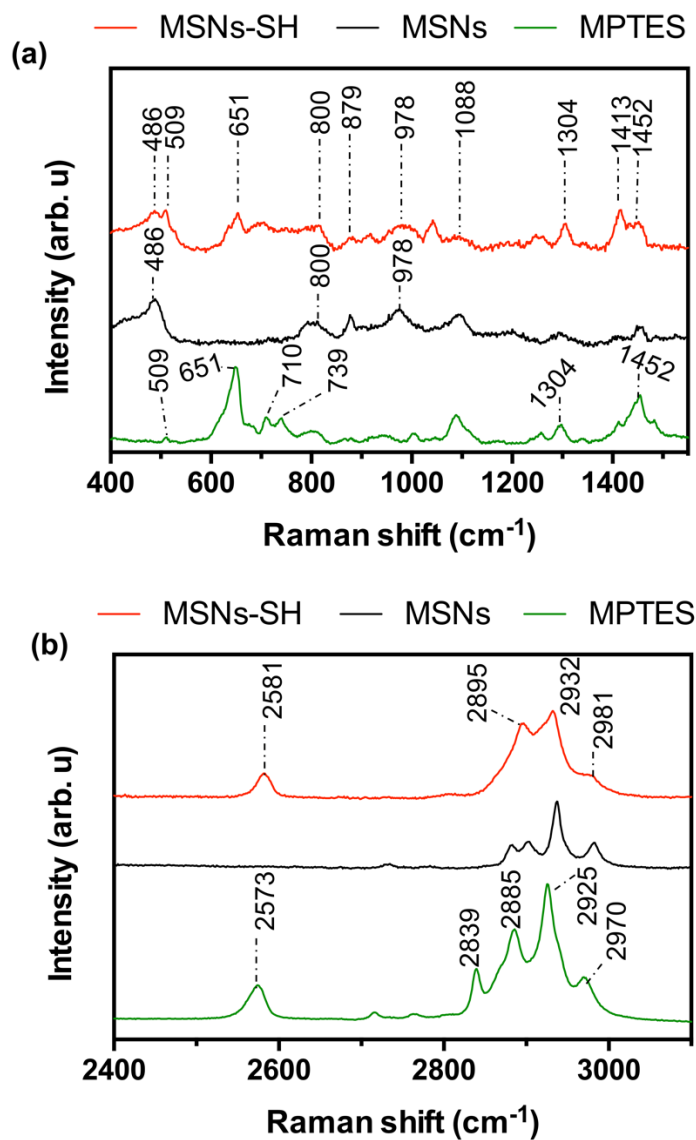


**Figure S4:** TGA with derivative weight (a) MSNs, (b) MSNs-COOH, (c) MSNs-SH, (d) MSNs-PEG and (e) MSNs-PEI.

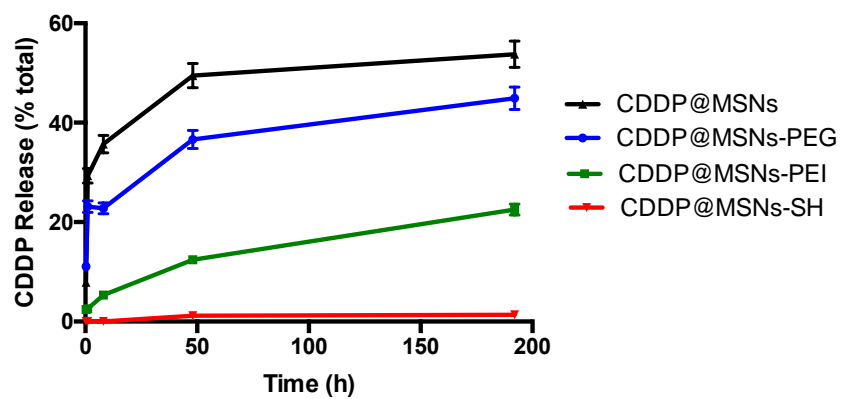


**Figure S5:** Single-pulse  $^{29}\text{Si}$  MAS NMR spectra (quantitative) of MSN-SH, MSNs-COOH and pristine MSNs.





**Figure S6:** Raman spectra of MSNs-SH (red line), pristine MSNs (black line) and 3-mercaptopropyltriethoxysilane (MPTES, green line). (a) 400-1550  $\text{cm}^{-1}$ , (b) 2400-3100  $\text{cm}^{-1}$ .



**Figure S7:** Release of CDDP from loaded nanomaterials dispersed in 1 mM NaCl and incubated at 37°C.