SUPPORTING INFORMATION

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

Mathieu Varache[†], Igor Bezverkhyy[†], Guy Weber[†], Lucien Saviot[†], Rémi Chassagnon[†], Florence Baras[†] and Frédéric Bouyer[†,*]

[†]*Laboratoire Interdisciplinaire Carnot de Bourgogne, UMR 6303 CNRS-Université Bourgogne Franche-Comté, 9 Avenue Alain Savary, BP 47 870, F-21078 DIJON Cedex, France*

[*]Corresponding author (email: frederic.bouyer@u-bourgogne.fr)

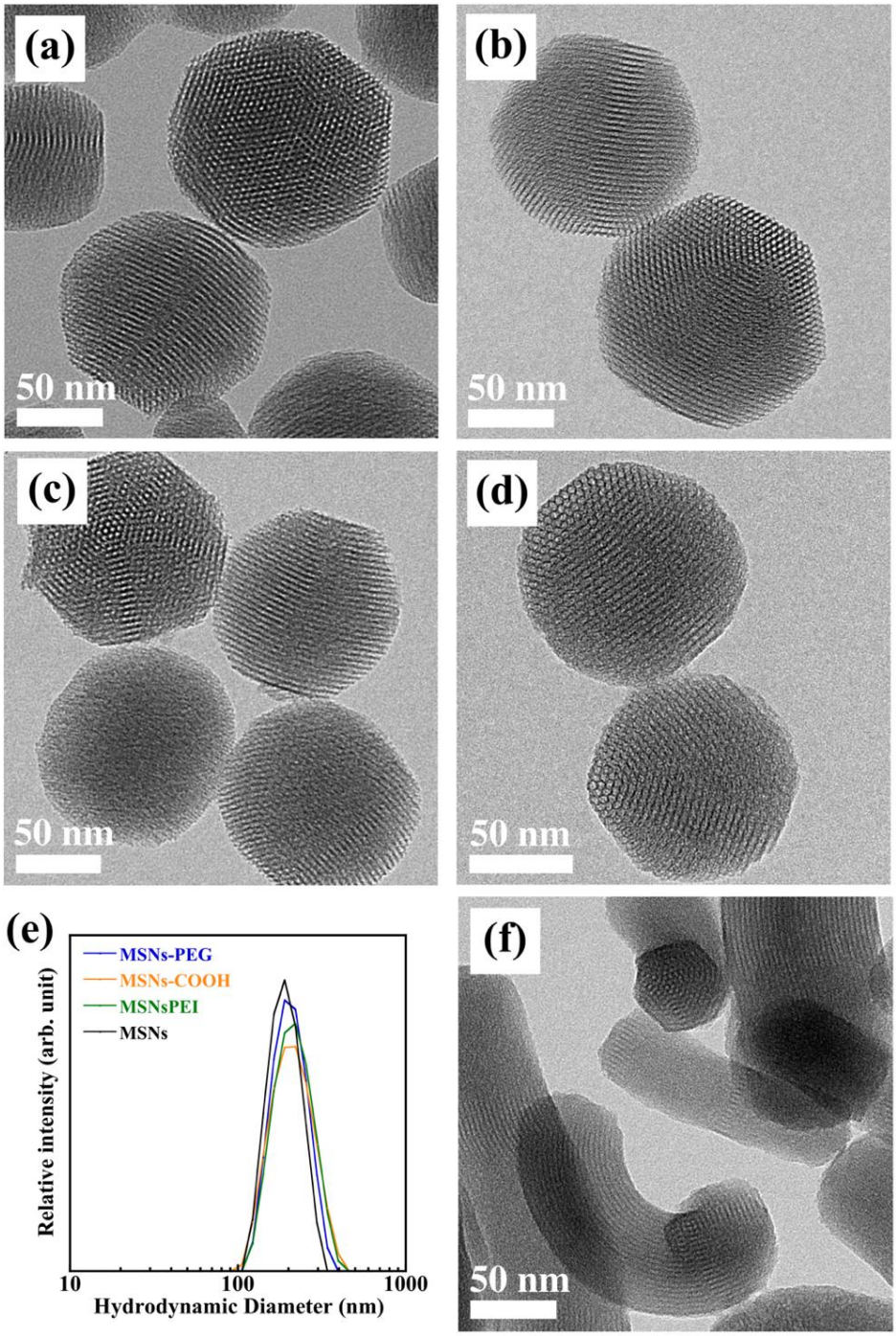

Figure S1: High magnification TEM images of (a) pure MSNs (MSNs), (b) MSNs-COOH, (c) MSNs-PEI, (d) MSNs-PEG, (e) the corresponding size distributions obtained by DLS and (f) high magnification TEM image of MSNs-SH.

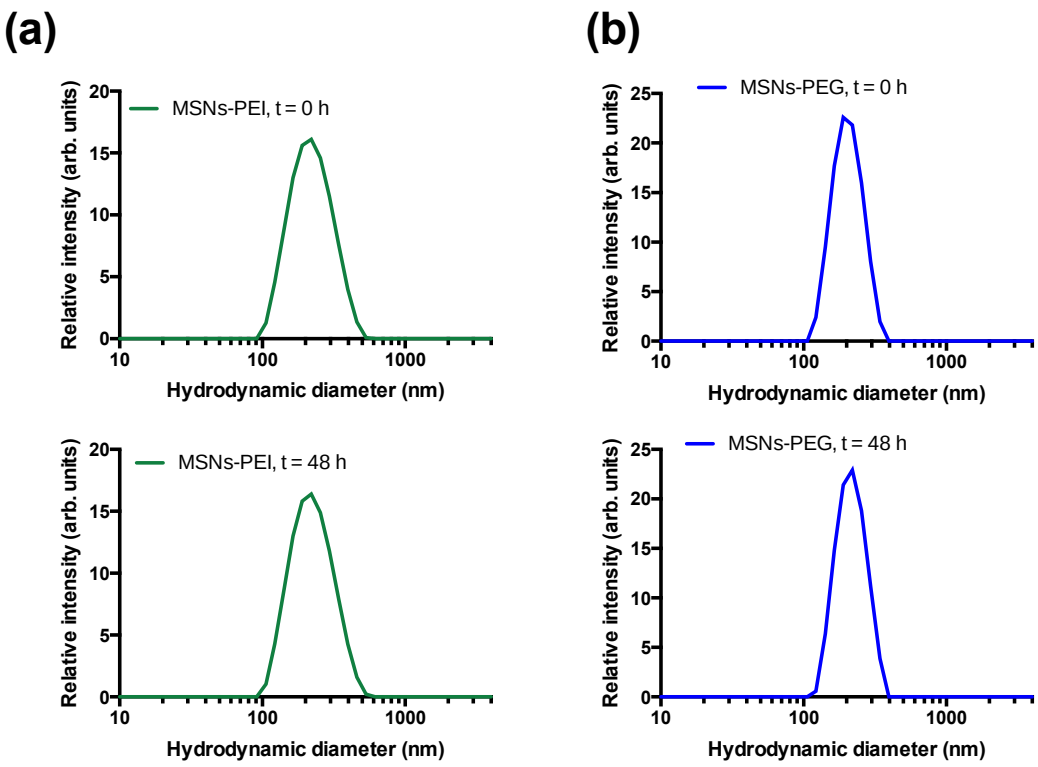

Figure S2: Size distribution of (a) MSNs-PEI and (b) MSNs-PEG dispersed in 1 mM NaCl at t=0 and after 48 h.

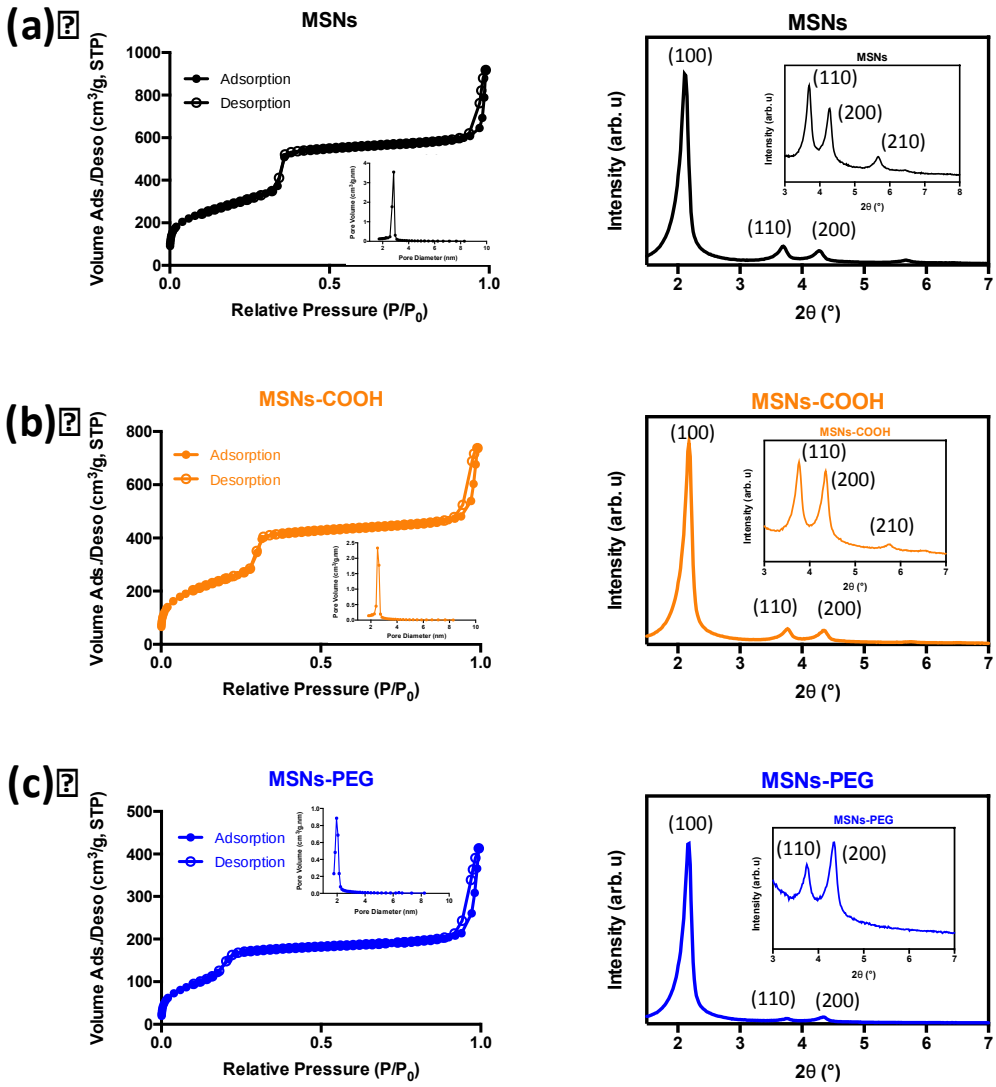

Figure S3: Left side: BET isotherms and BJH pore distributions, right side: XRD patterns. (a) MSNs, (b) MSNs-COOH, (c) MSNs-PEG, (d) MSNs-PEI and (d) MSNs-SH.

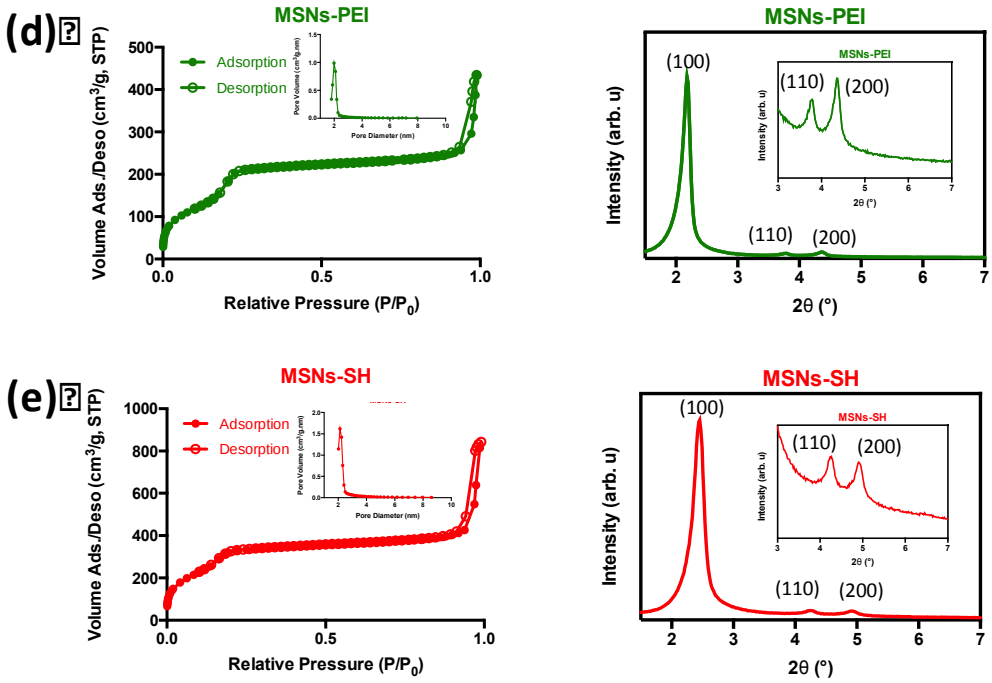

Figure S3: continued.

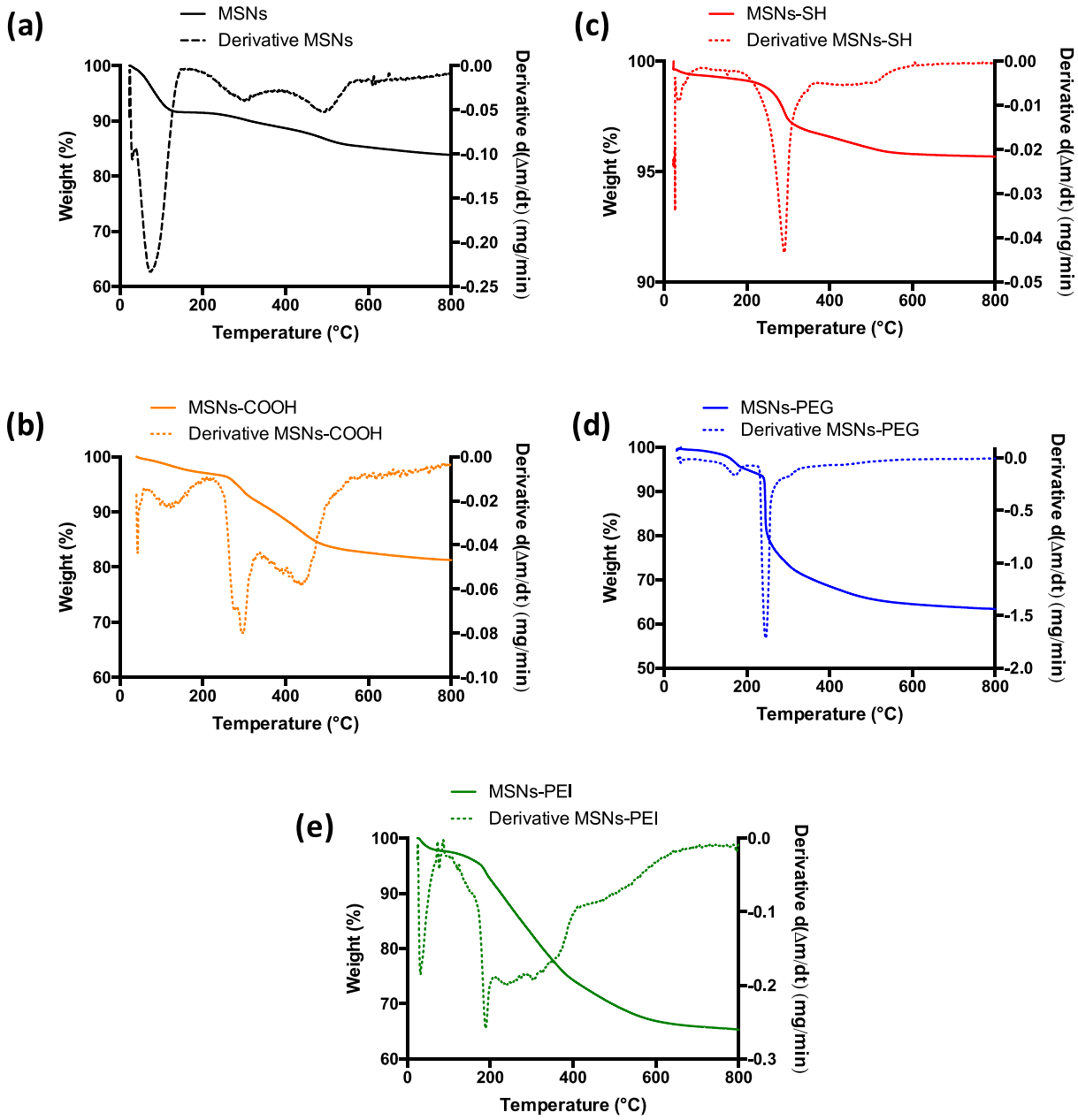

Figure S4: TGA with derivative weight (a) MSNs, (b) MSNs-COOH, (c) MSNs-SH, (d) MSNs-PEG and (d) MSNs-PEI.

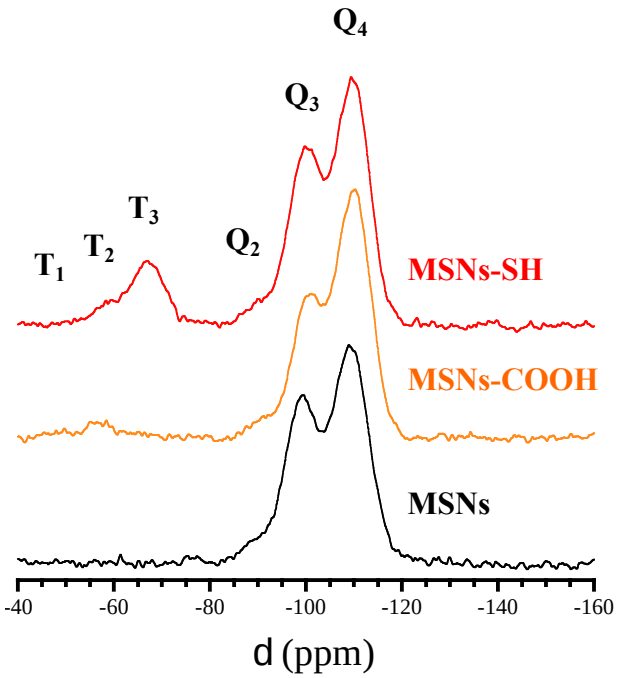

Figure S5: Single-pulse ^{29}Si MAS NMR spectra (quantitative) of MSN-SH, MSNs-COOH and pristine MSNs.

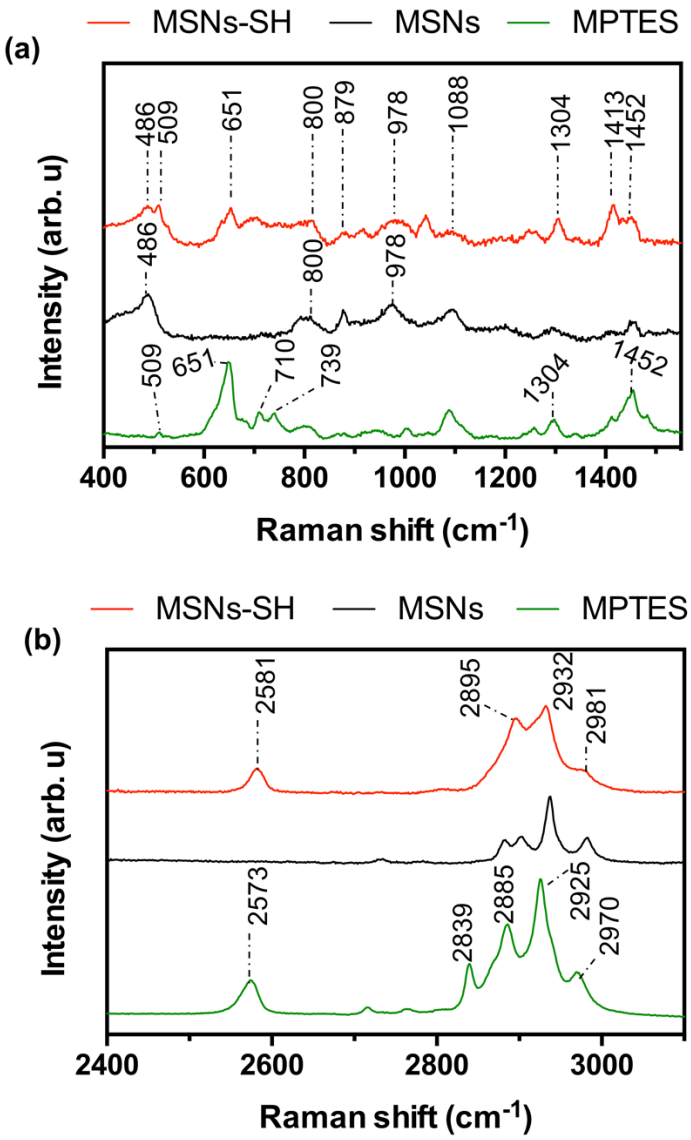

Figure S6: Raman spectra of MSNs-SH (red line), pristine MSNs (black line) and 3-mercaptopropyltriethoxysilane (MPTES, green line). (a) 400-1550 cm^{-1}, (b) 2400-3100 cm^{-1}.

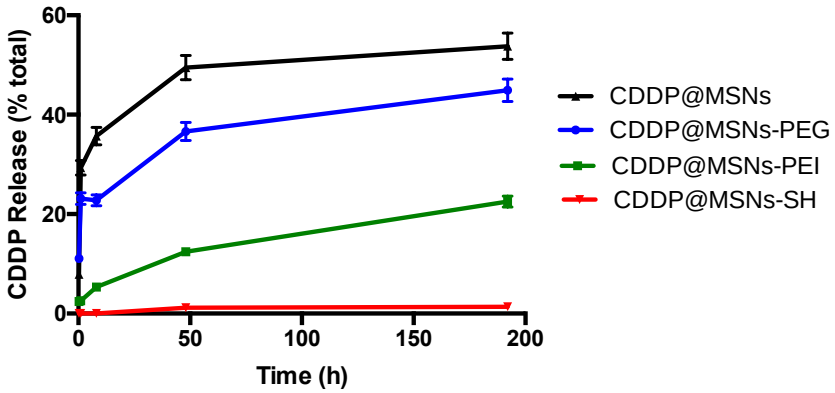

Figure S7: Release of CDDP from loaded nanomaterials dispersed in 1 mM NaCl and incubated at 37°C.