

ARTICLE

Mesoporous silica-based hybrid materials for bone-specific drug delivery

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Supplementary figures

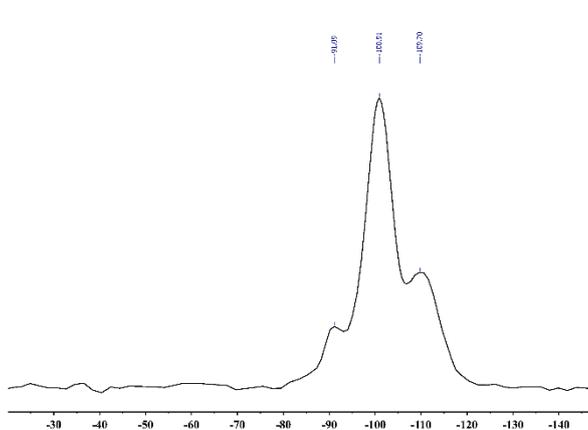


Figure S1 ²⁹Si CP-MAS NMR spectrum of sample MSN

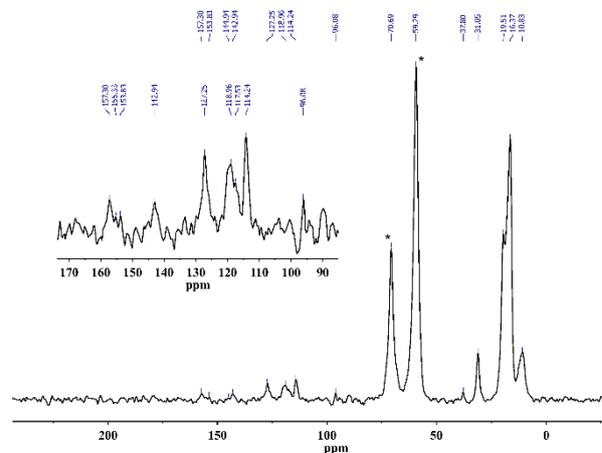


Figure S3 ¹³C CP-MAS NMR spectrum of sample MSN-CN

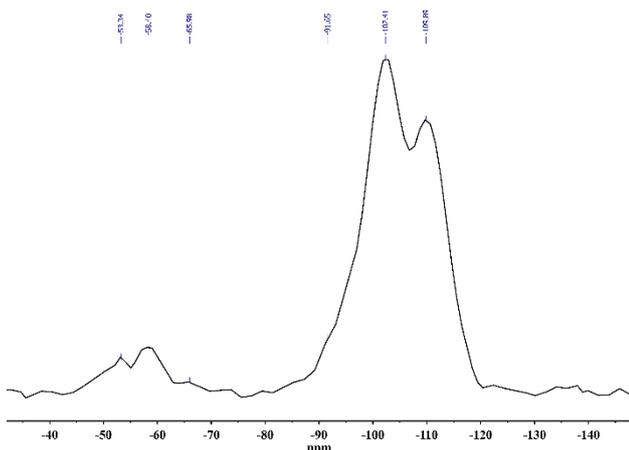


Figure S2 ²⁹Si CP-MAS NMR spectrum of sample MSN-CN

SOLUTION	ABSORBANCE at 286 nm [-]	ALENDRONATE CONC. [mM]
1° loading filtered solution	0.119	4.5
2° loading filtered solution	0.132	5

Table S1 – UV-Vis spectrophotometric analysis results.

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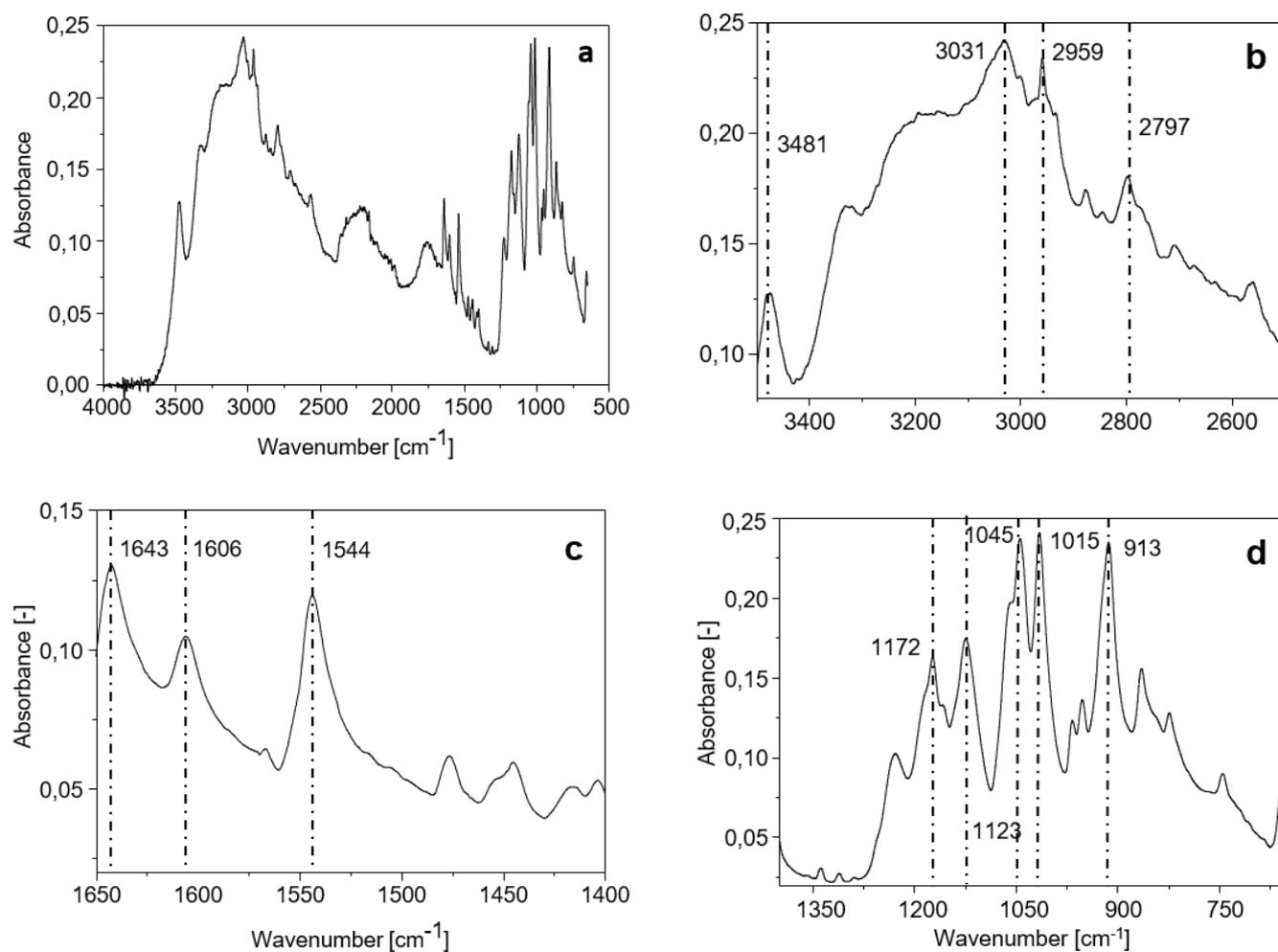


Fig. 54 FT-IR spectrum of Alendronate: a) Spectrum in the range 4000-500 cm^{-1} ; b) Magnification in the range 3500-2500 cm^{-1} ; c) Magnification in the range 1650-1450 cm^{-1} ; d) Magnification in the range 1400-600 cm^{-1}

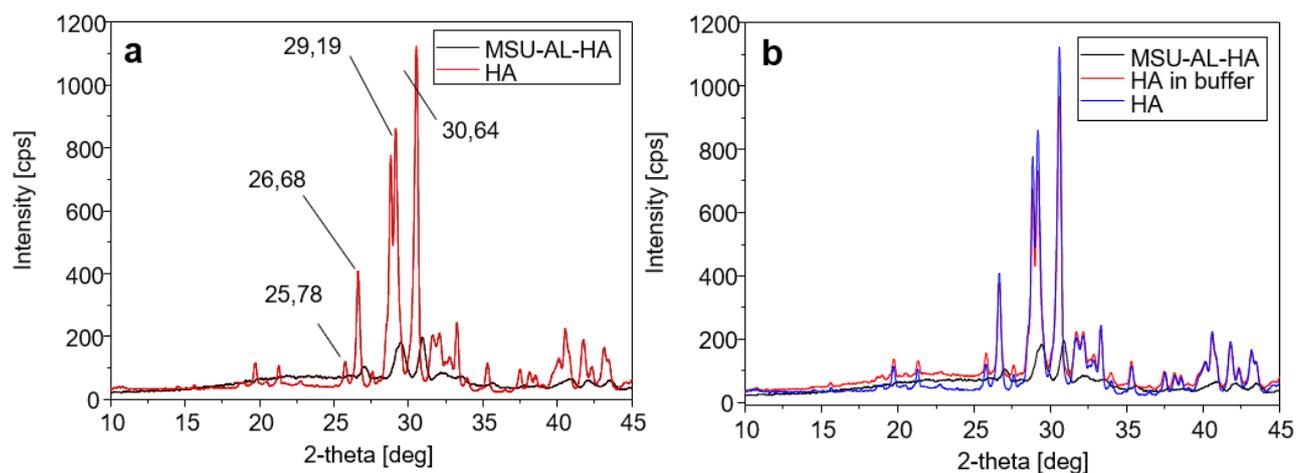


Fig. 55. X-ray diffraction patterns of HA in different conditions. Pure, a), after interaction with MSU-AL and in buffer

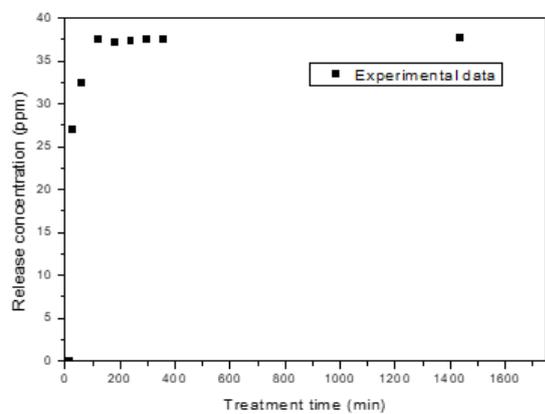


Figure S6 – Kinetic curve of IBU release at pH 7

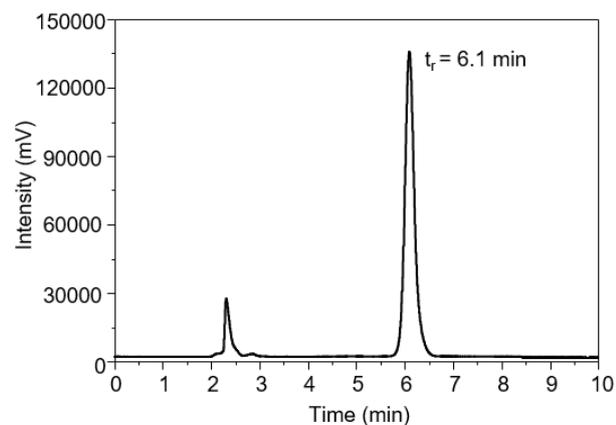


Figure S7– Chromatogram of IBU after release time of 30 min at pH 7.

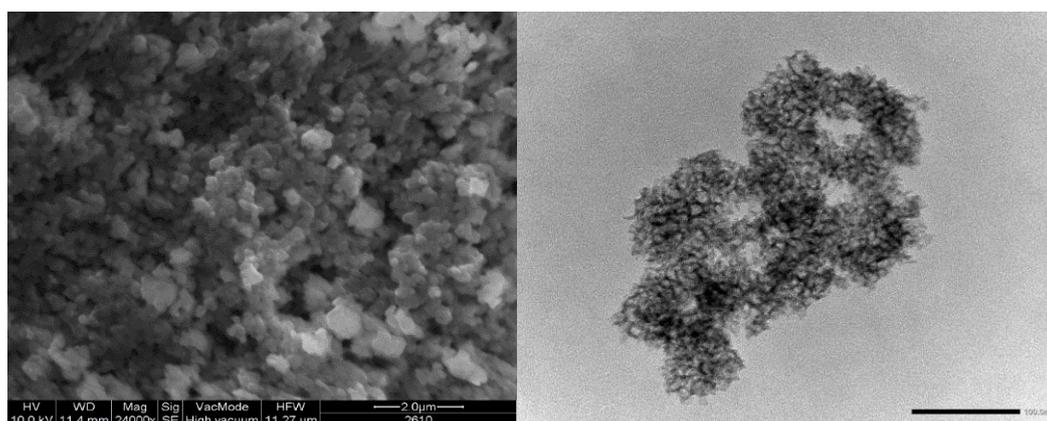


Figure S8 - a) Electron scanning microscopy (SEM) image of sample MSN-COOH-AL, b) TEM micrograph of the sample MSN-COOH-AL

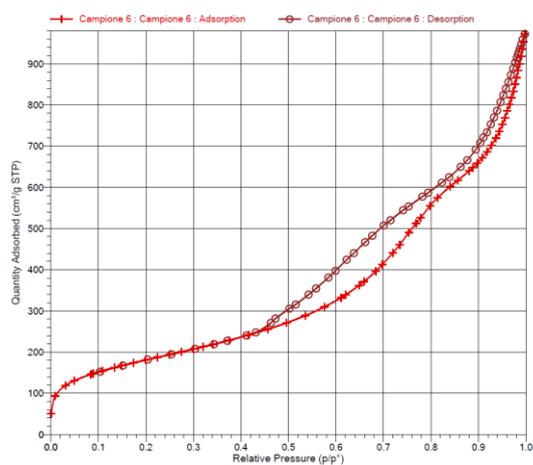


Figure S9 - Nitrogen adsorption-desorption isotherm of the starting MSN material after complete removal of the surfactant.