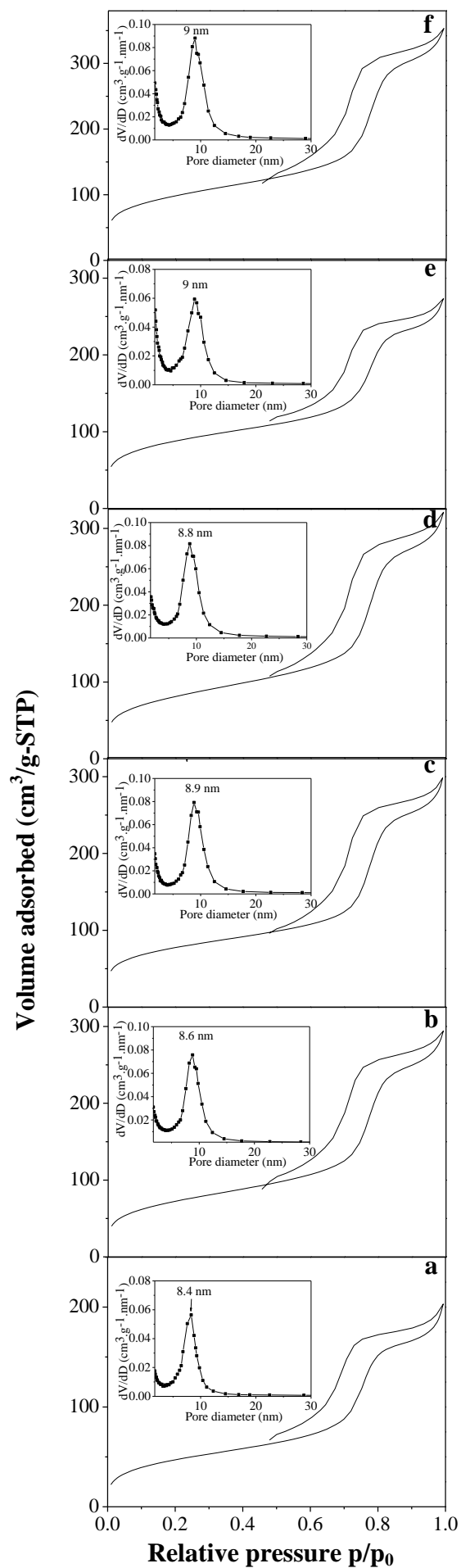
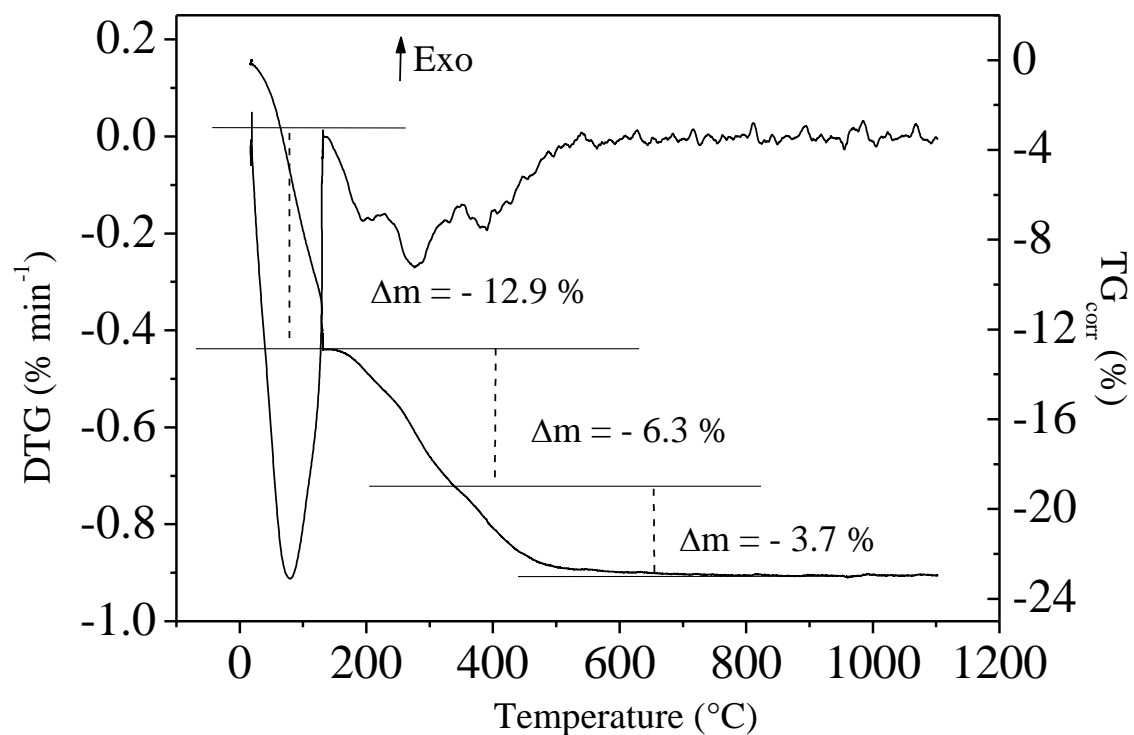


Supporting information S1 : Evolution of the nitrogen adsorption-desorption isotherm with the corresponding BJH pore size distribution curve (insert) a : 15; b : 30 minutes; c : 2; d :5; e :8 and f :24 hours.

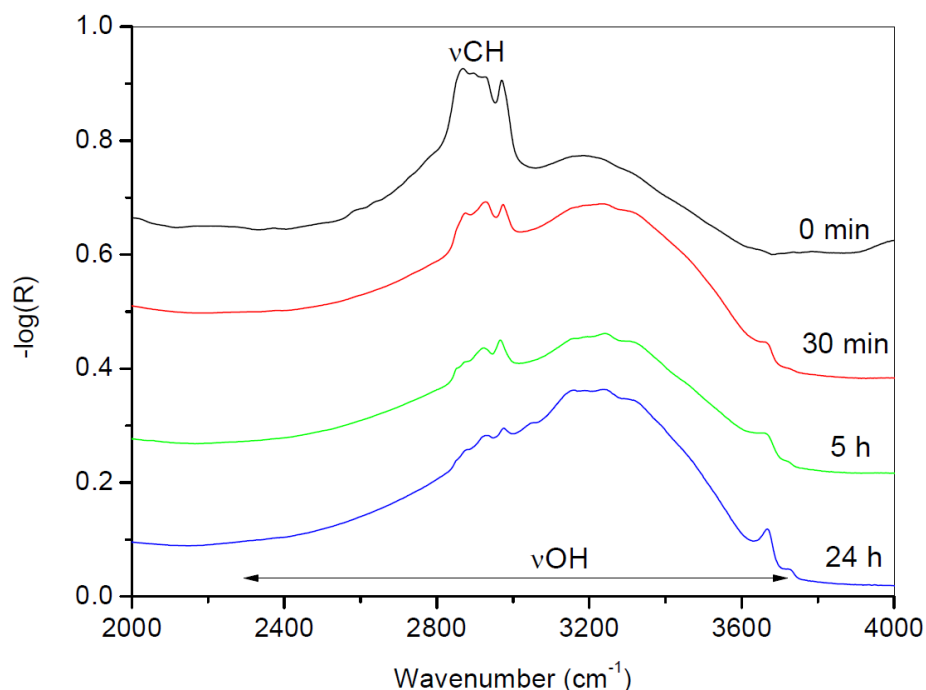


Supporting information S2 : TGA data of sample recovered after surfactant extraction by water during 5 hours at room temperature.



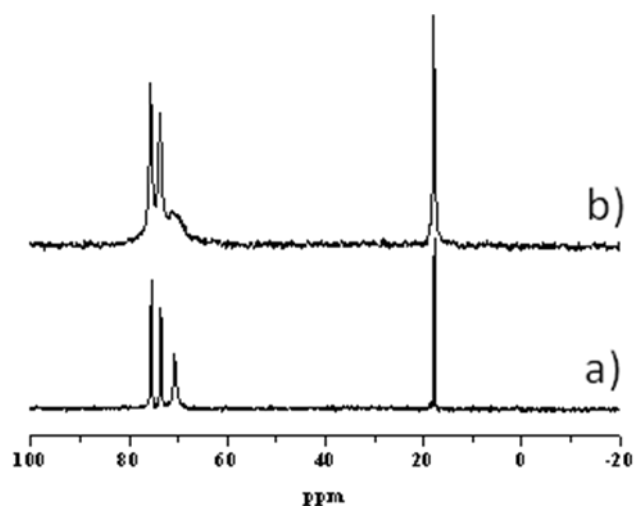
The thermogravimetric analyses were performed on a Setaram TGA92 Thermobalance using alumina crucibles and sample weights of 10-20 mg. The measurements were recorded in a dry air flow at 5°C min⁻¹ heating rate over the temperature range 30-1100 °C with a plateau of one hour at 130°C.

Supporting information S3 : Evolution of the infrared spectra with the extraction time at room temperature.



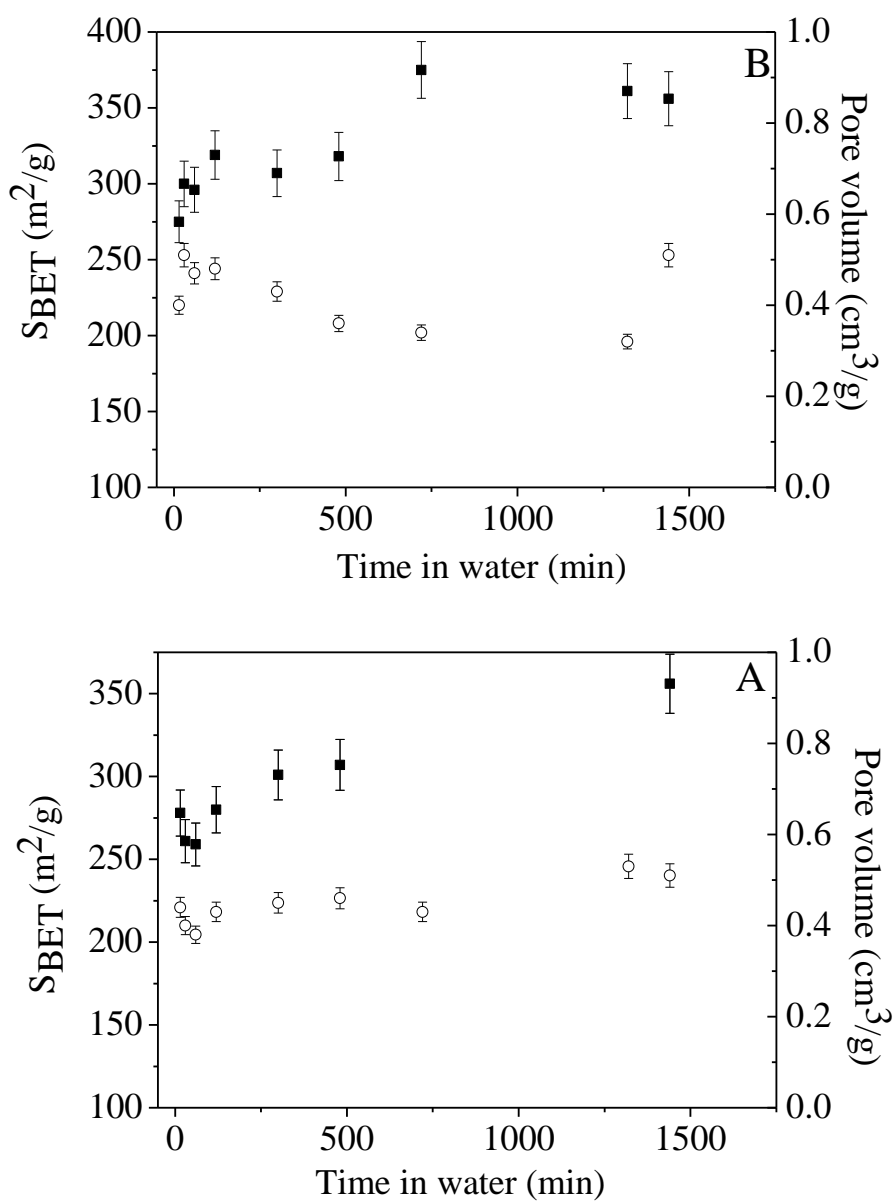
The infrared spectra were recorded in the mid-Infrared range on a Fourier transform infrared spectrometer Nicolet 8700, equipped with a KBr beamsplitter and a DTGS detector. The spectra in diffuse reflectance (DRIFTS) mode were collected using a Harrick Praying MantisTM equipment and an environmental cell. To perform the analysis, the powder was first diluted in a KBr matrix (5 wt.%). Then the sample was kept inside the chamber under vacuum (10^{-4} Torr) to remove physisorbed water. Reflectances of the sample and of the pure KBr, used as a non-absorbing reference powder, were measured under the same conditions, after 30 minutes of evacuation. The spectra are shown in pseudo-absorbance ($-\log R$) mode. The spectrum resolution was 4 cm^{-1} and the acquisition time was 1 min.

Supporting information S4 : ^1H decoupled ^{13}C MAS NMR spectra of as-synthesized ordered mesoporous titania (a) and silica (b).



^{13}C and ^1H solid state MAS NMR spectra were recorded on a Bruker Avance II-400 spectrometer operating at a Larmor frequency of 100.63 and 400.18 MHz, respectively. ^1H - ^{13}C solid state CPMAS NMR experiments were performed with a $\pi/2$ ^1H pulse duration of 4.5 μs , a contact time of 1.5 ms, a recycle delay of 8 s and spinning frequency of 12 kHz. ^1H decoupled ^{13}C MAS NMR spectra were recorded with a ^{13}C pulse duration of 1.7 μs corresponding to a flip angle of $\pi/6$ and a recycle delay of 60 s. ^1H MAS NMR spectra were performed with a $\pi/2$ ^1H pulse duration of 4.7 μs , a recycle delay of 8 s and spinning frequency of 30 kHz. ^1H and ^{13}C chemical shifts were referenced to tetramethylsilane (TMS).

Supporting information S5: Evolution of the specific surface area (■) and the pore volume (○) with the extraction duration at 80°C (A) and 100°C (B).



Supporting information S6 : XRD of the mesoporous titania obtained after surfactant extraction by water during 8 (a) and 24 hours (b) at 80 (A) or 100°C (B).

