

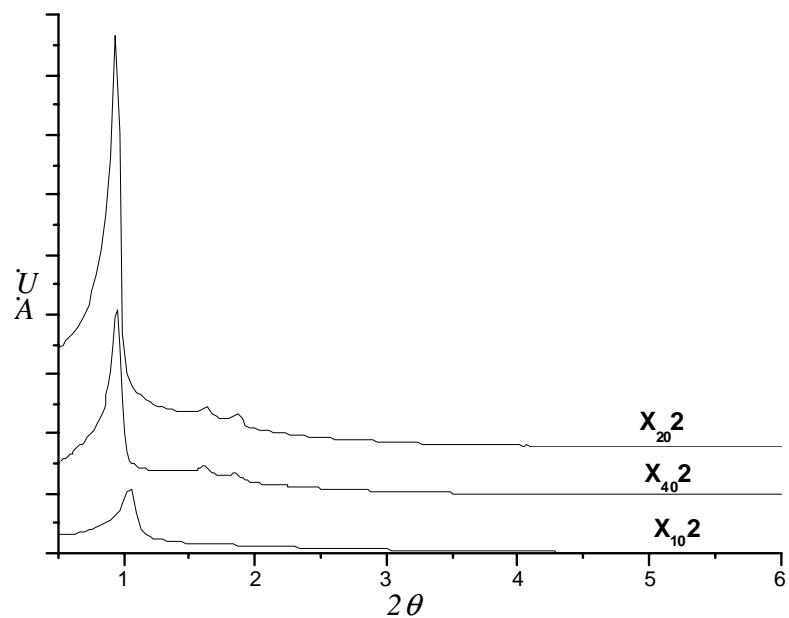
# Soft route for monodisperse gold nanoparticles confined within SH-functionalized walls of mesoporous silica

Eric Besson, Ahmad Mehdi\*, Catherine Reyé and Robert Corriu

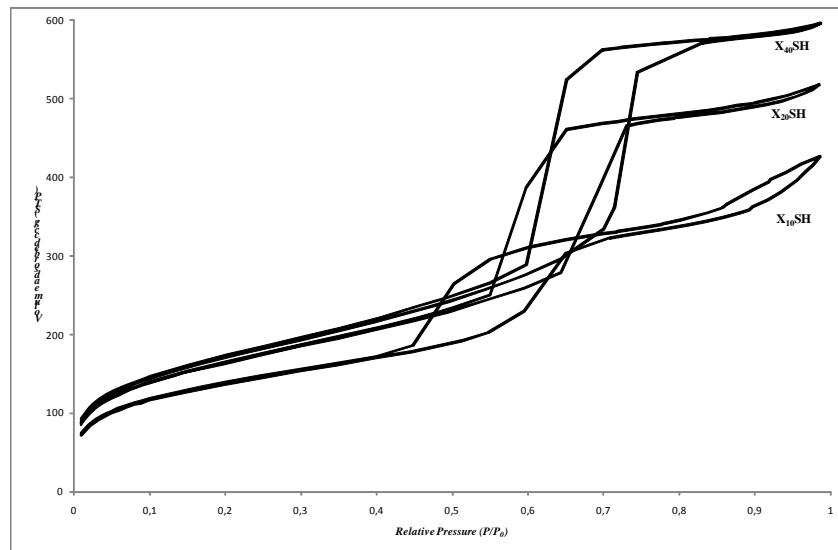
Institut Charles Gerhardt, Chimie Moléculaire et Organisation du Solide, Université Montpellier, cc 1701. Place E. Bataillon, 34095 Montpellier Cedex 5 France. Fax: 33 4 6714 3852; Tel: 33 4 6714 3038.  
E-mail : [ahmad.mehdi@univ-montp2.fr](mailto:ahmad.mehdi@univ-montp2.fr)

## Electronic Supplementary Information

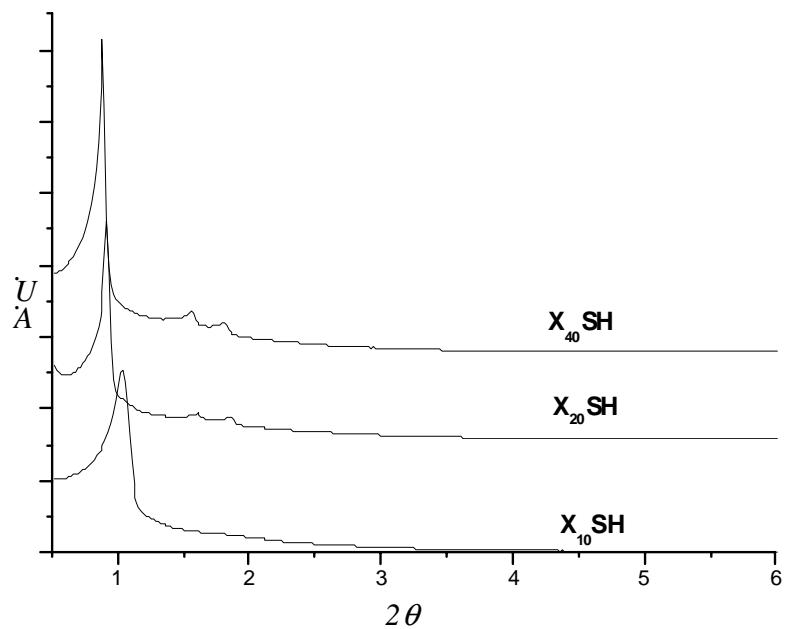
**ESI 1:** X-Ray Diffraction patterns of  $\mathbf{X}_{10}2$ ,  $\mathbf{X}_{20}2$  and  $\mathbf{X}_{40}2$



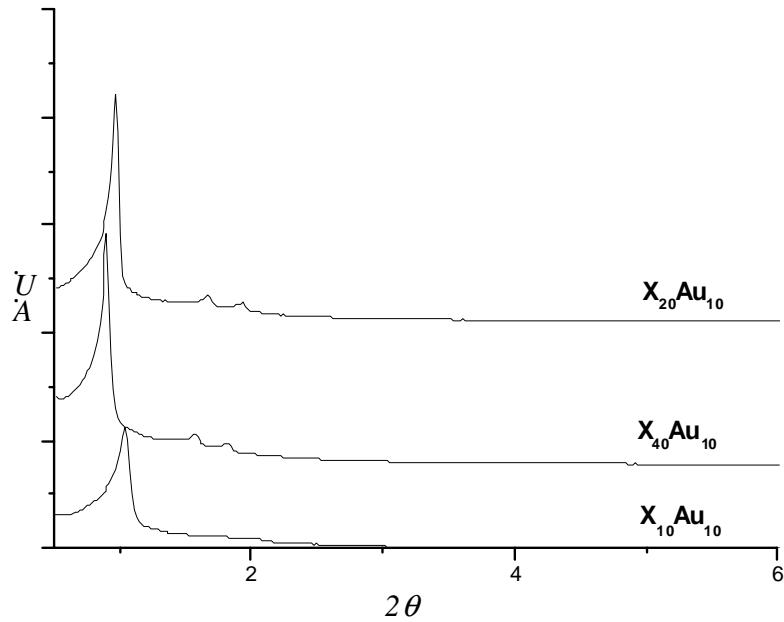
**ESI 2:** N<sub>2</sub> adsorption-desorption isotherms for X<sub>40</sub>SH, X<sub>20</sub>SH and X<sub>10</sub>SH



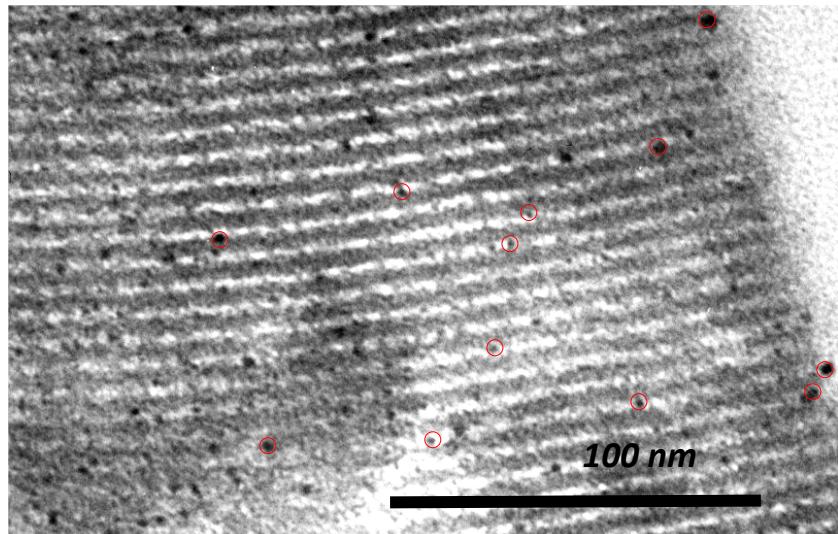
**ESI 3:** X-Ray Diffraction patterns of  $\mathbf{X}_{10}\mathbf{SH}$ ,  $\mathbf{X}_{20}\mathbf{SH}$  and  $\mathbf{X}_{40}\mathbf{SH}$



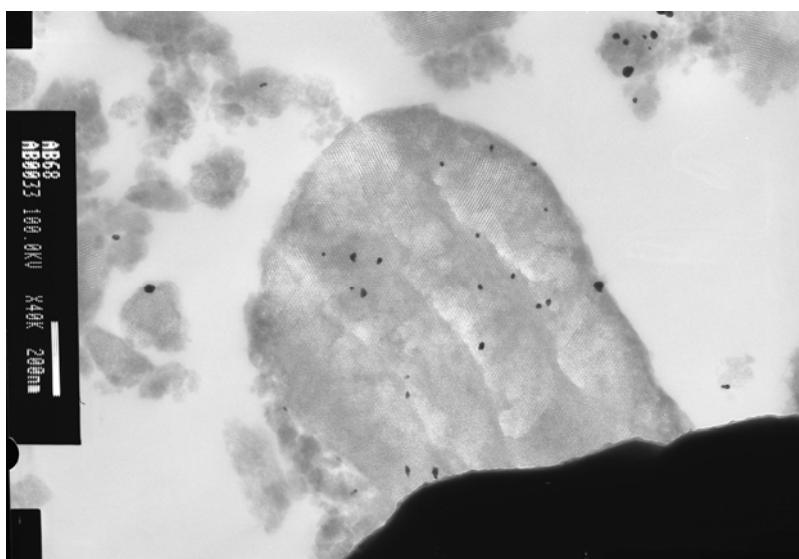
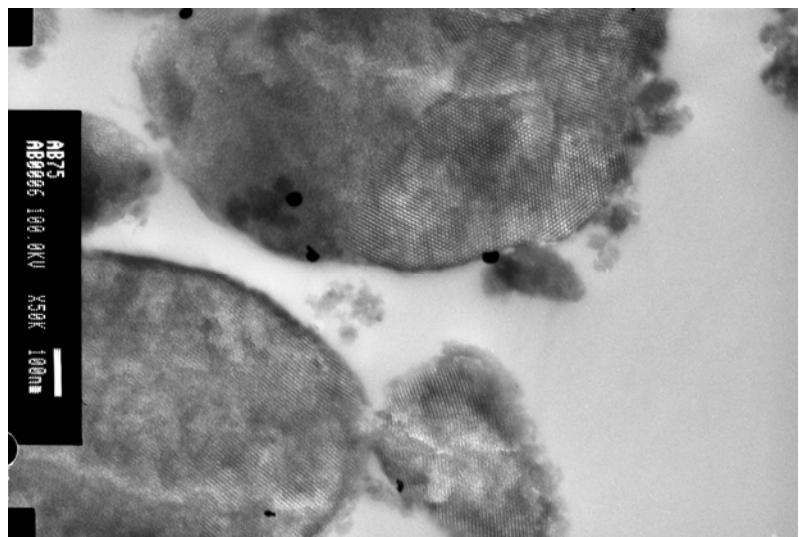
**ESI 4:** X-Ray Diffraction patterns of  $\mathbf{X_{10}SH}$ ,  $\mathbf{X_{20}SH}$  and  $\mathbf{X_{40}SH}$



**ESI 5:** TEM image for  $\mathbf{X}_{10}\mathbf{Au}_{20}$ .



**ESI 6:** TEM image for AuNPs when starting from **SBA-15** (Up) and from **X<sub>20</sub>2** (Bottom).



**ESI 7:** TEM image showing the evolution of AuNPs in  $\mathbf{X_{10}Au_5}$  after thermal treatment at 900°C.

