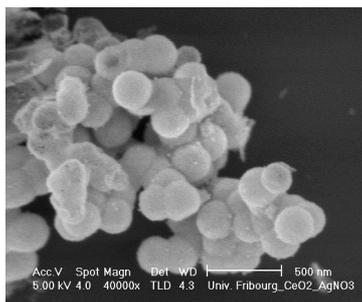
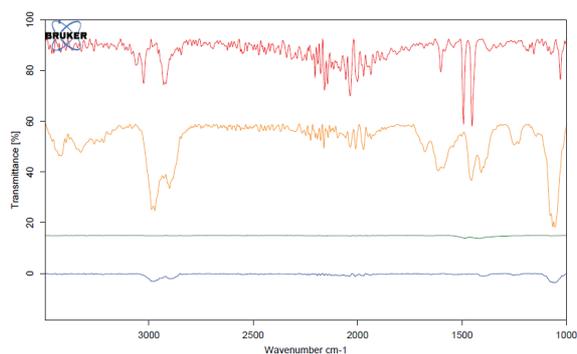


## Supplementary information



**Fig. S1** SEM image of  $\text{AgNO}_3/\text{CeO}_2$  capsules. Formed silver nanoparticles appear as white spots on the surface of capsules on the SEM image.



**Fig. S2** FTIR spectra of polystyrene nanospheres (red),  $\text{AgNP}/\text{PS}$  coated with  $\text{CeO}_2$  (yellow),  $\text{AgNP}/\text{CeO}_2$  capsules obtained by calcination (green), and  $\text{AgNP}/\text{CeO}_2$  capsules obtained by dissolution (blue).