

Supplementary Information

One-pot synthesis of iniferter-bound polystyrene core nanoparticles for the controlled grafting of multilayer shells

Nataliya Marchyk[‡], Jacqueline Maximilien[‡], Selim Beyazit, Karsten Haupt*, Bernadette Tse Sum Bui*

Compiègne University of Technology, CNRS Enzyme and Cell Engineering Laboratory, Rue Roger Couttolenc, CS 60319, 60203 Compiègne Cedex, France.

E-mail: jeanne.tse-sum-bui@utc.fr; Fax: (+) 33 3 44203910; Tel: 33 3 44234402

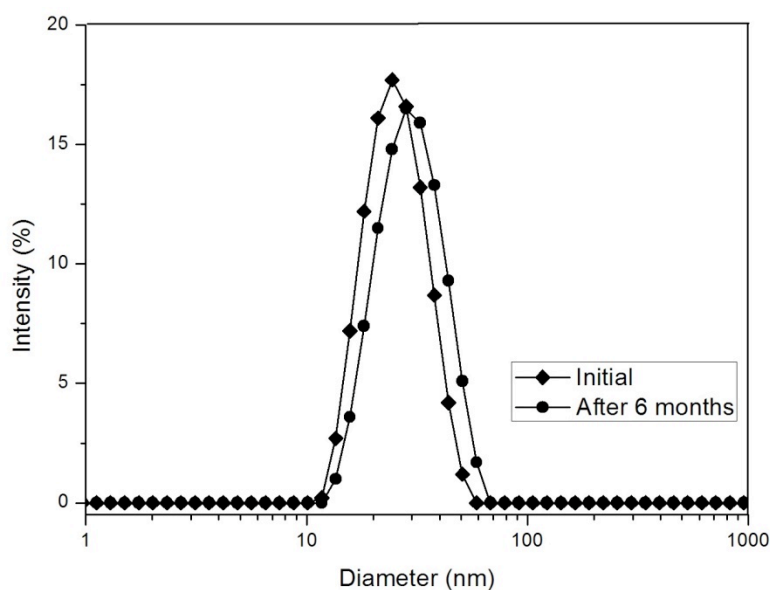


Figure S1. Size distribution, as measured by dynamic light scattering of fluorescent PS cores immediately after synthesis and after 6 months storage at 8 °C.

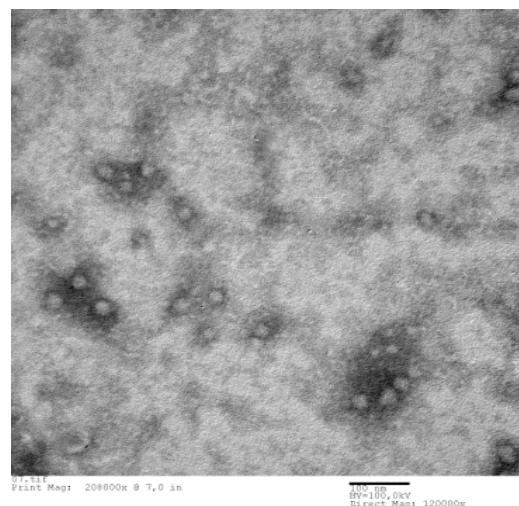
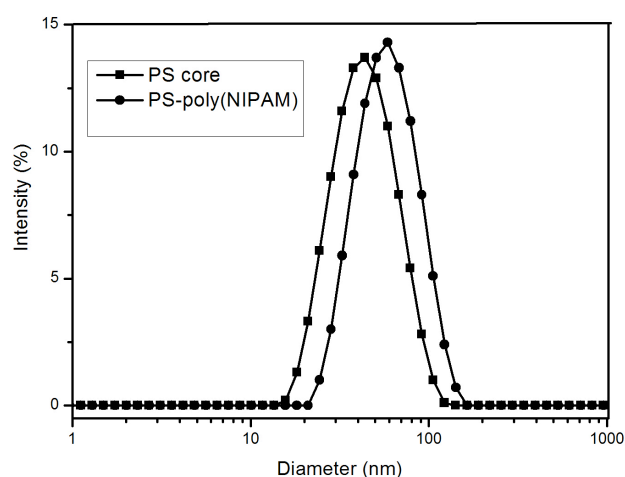
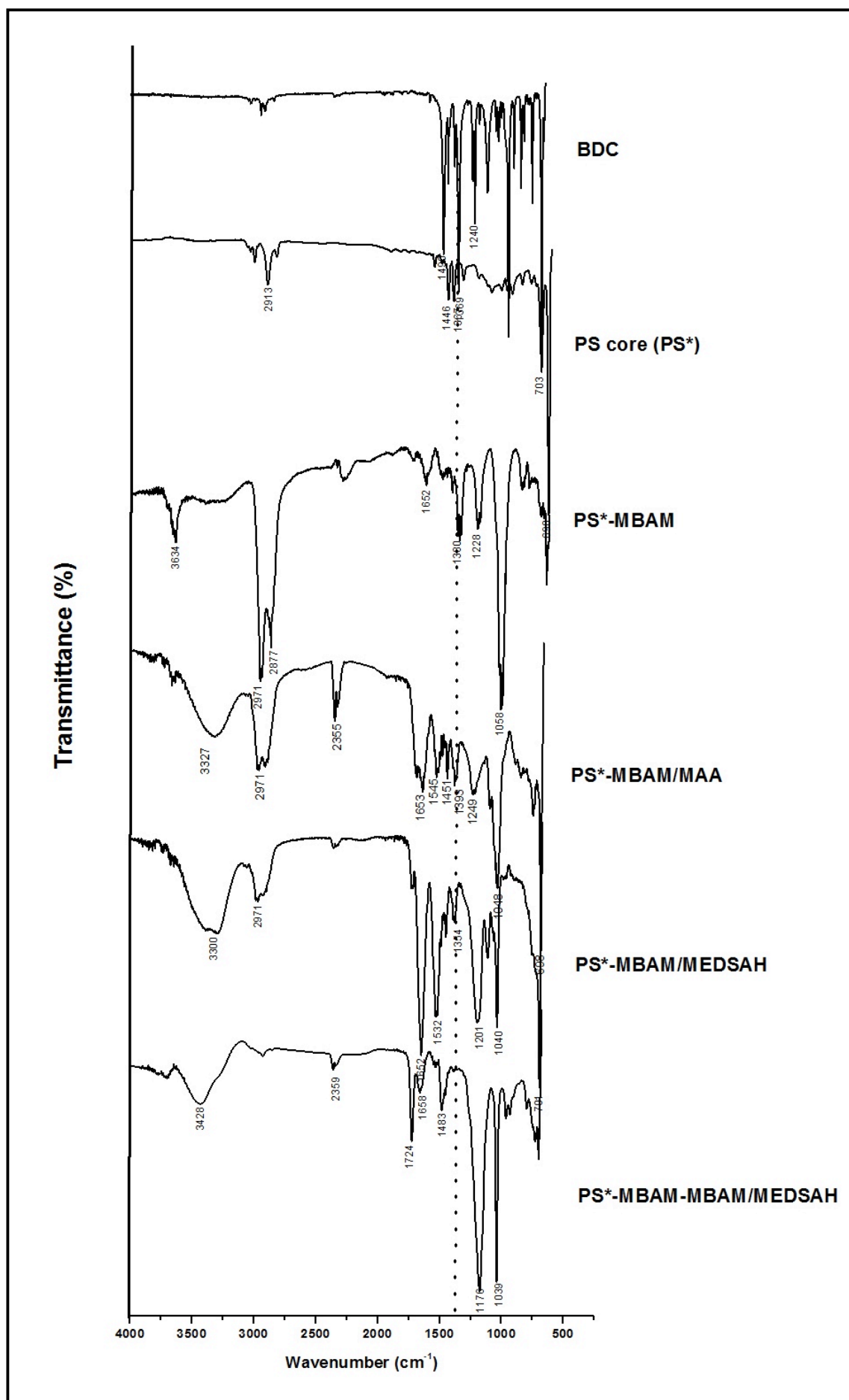


Figure S2. Size distributions, as measured by dynamic light scattering of the increase in size of PS core after grafting of linear poly(NIPAM) shell (left). TEM image of PS core-poly(NIPAM) shell, the scale represents 100 nm (right).



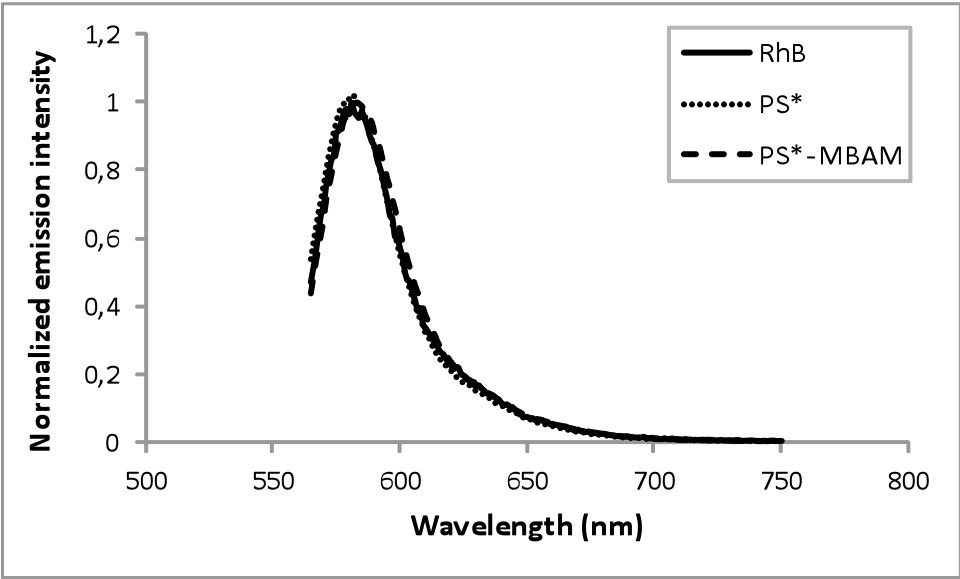


Figure S4. Normalised fluorescence emission intensities of RhB, fluorescent PS core (PS*) and PS*-MBAM NPs in water. Excitation wavelength is 556 nm.

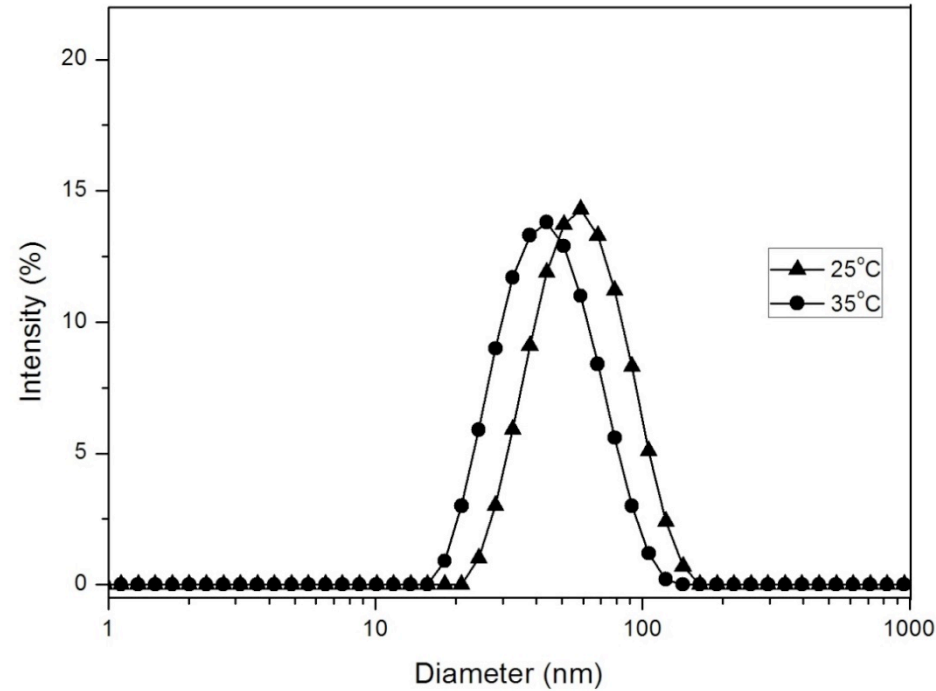


Figure S5: Size distributions, as measured by dynamic light scattering showing thermoresponsivity of PS-MBAM/NIPAM. Sizes are 61 and 47 nm at 25 °C and 35 °C respectively.