## **Supplementary Information for**

## Solvent dependent morphologies in thiol-ene photopolymerization: A facile route to the synthesis of resorcinarene nanocapsules

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Fig. S1 Particle size analysis of SEM images of nanocapsules (average dimension =  $106 \pm 18$  nm).



**Fig. S2** Dynamic light scattering of as prepared RTATT nanocapsules obtained after UV irradiation in chloroform for 3 h.



**Fig. S3** Size exclusion chromatogram of RTATT monomer and polymer prepared in chloroform by UV irradiation for 3 h.



**Fig. S4** EDS analysis in between (top) and on (bottom) the lattices obtained by photopolymerization in dichloromethane for 3 h. (Note the scale differences in top and bottom y-axes.)



Fig. S5 TEM of RTATT photopolymer synthesized in ethyl acetate by UV irradiation for 3 h.



**Fig. S6** <sup>1</sup>H NMR spectra of RTATT monomer (bottom) and polymer (top) prepared in chloroform by UV irradiation for 3 h.



**Fig. S7** TEM (top) and SEM (bottom) images of the photopolymer obtained from a two component system comprising a resorcinarene cavitand (2.0 mM) and triethylene glycol-dithiol (4.0 mM) in chloroform.



**Fig. S8** SEM image of nanocapsules obtained by irradiating RTATT in chloroform (0.75 mM) for 3 h.



**Fig. S9** Photograph of RTATT photopolymerized in chloroform for 20 h. Shown on the left is a sample without any solvent evaporation and on the right a sample with partial solvent evaporation resulting in macroscopic sheet formation.