

Supplemental material

## Doxorubicin delivery by polymer nanocarrier based on N-methylglucamine resorcinarene

Tatiana Yu. Sergeeva,<sup>a</sup> Rezeda K. Mukhitova,<sup>a</sup> Leysan R. Bakhtiozina,<sup>b</sup> Irek R. Nizameev,<sup>a,c</sup> Marsil K. Kadirov,<sup>a</sup> Anastasia S. Sapunova,<sup>a</sup> Alexandra D. Voloshina,<sup>a</sup> Albina Y. Ziganshina<sup>a\*</sup> and Igor S. Antipin<sup>b</sup>

<sup>a</sup> Department of Calixarene Chemistry, Arbuzov Institute of Organic and Physical Chemistry, FRC Kazan Scientific Center of RAS, Kazan, Russia; <sup>b</sup> Department of organic chemistry, Alexander Butlerov Institute of Chemistry, Kazan Federal University, Kazan Russia; <sup>c</sup> Kazan National Research Technical University named after A.N. Tupolev - KAI, Kazan, Russia. E-mail az@iopc.ru

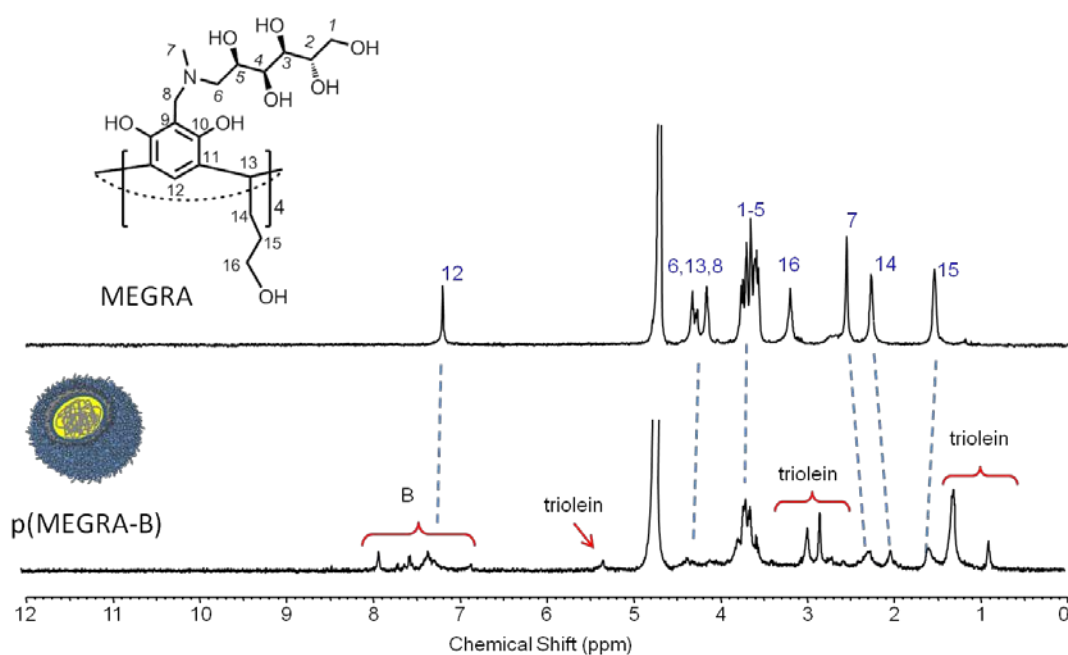


Figure S1. <sup>1</sup>H NMR spectra of MEGRA and p(MEGRA-B) in D<sub>2</sub>O.

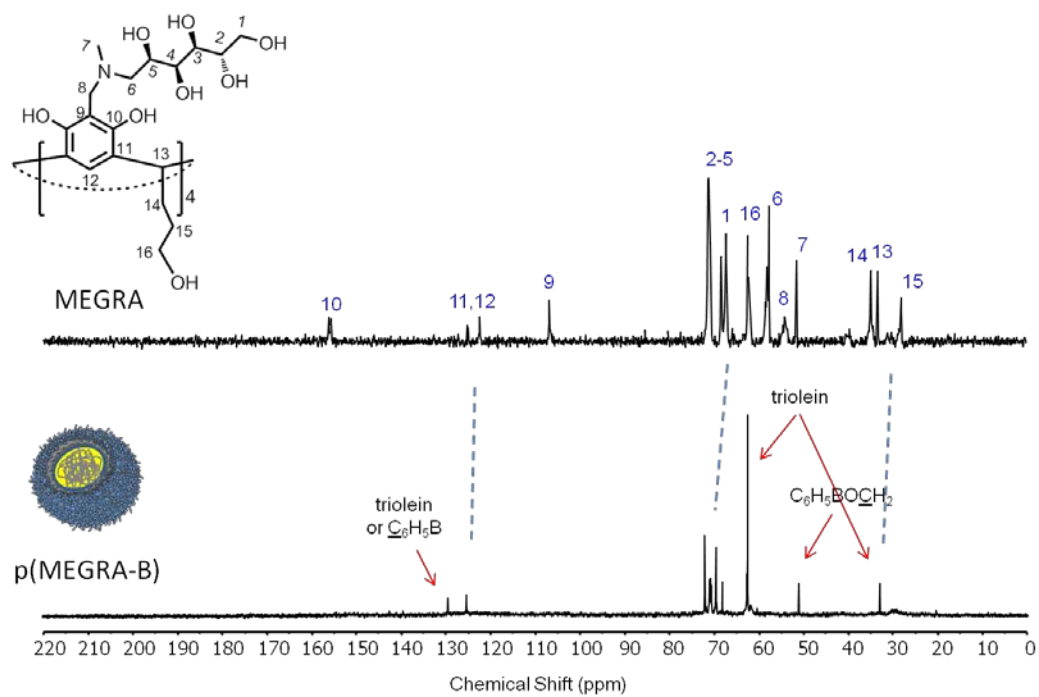


Figure S2.  $^{13}\text{C}$  NMR spectra of MEGRA and p(MEGRA-B) in  $\text{D}_2\text{O}$ .

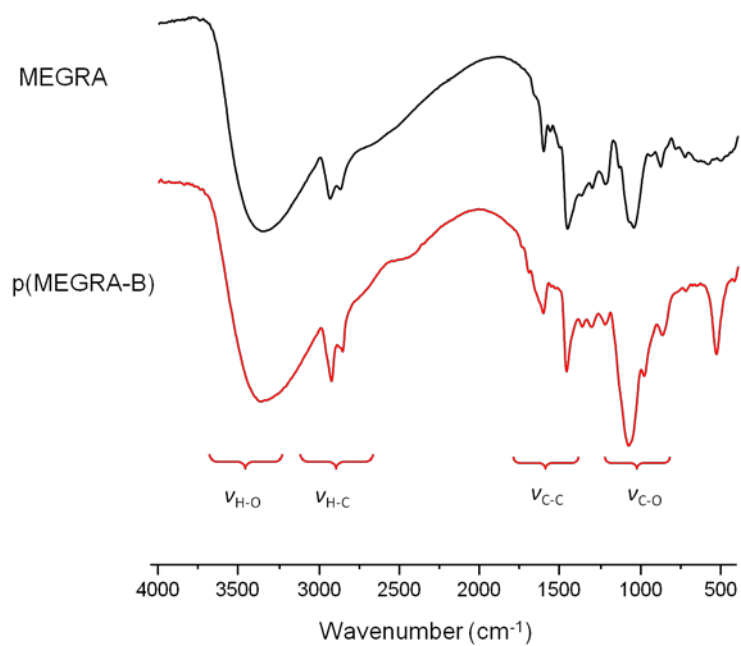


Figure S3. IR spectra of MEGRA and p(MEGRA-B).

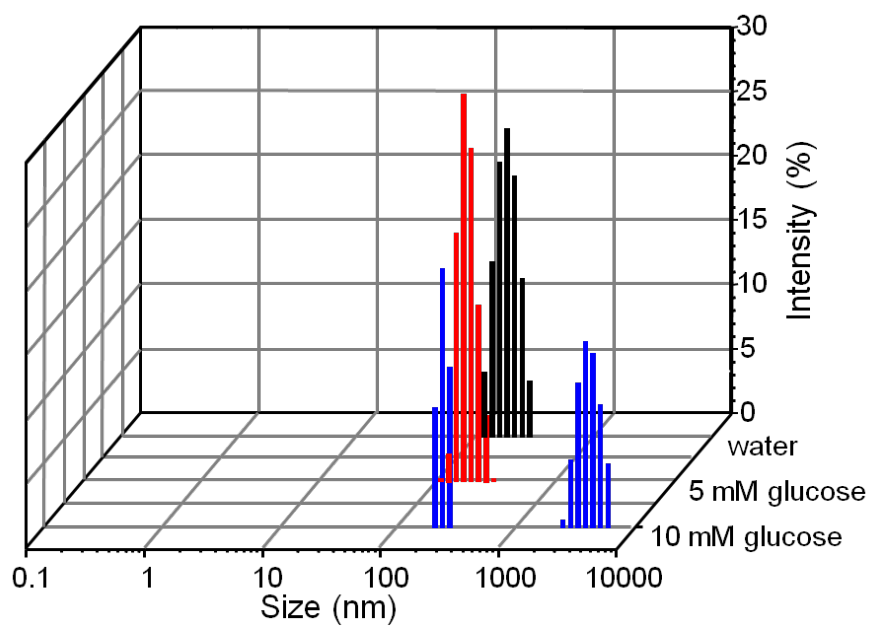


Figure S4. Particle size distribution for p(MEGRA-B) in water, 5 mM and 10 mM glucose,  $C = 1.9$  mg/mL,  $H_2O$ , 25 °C.

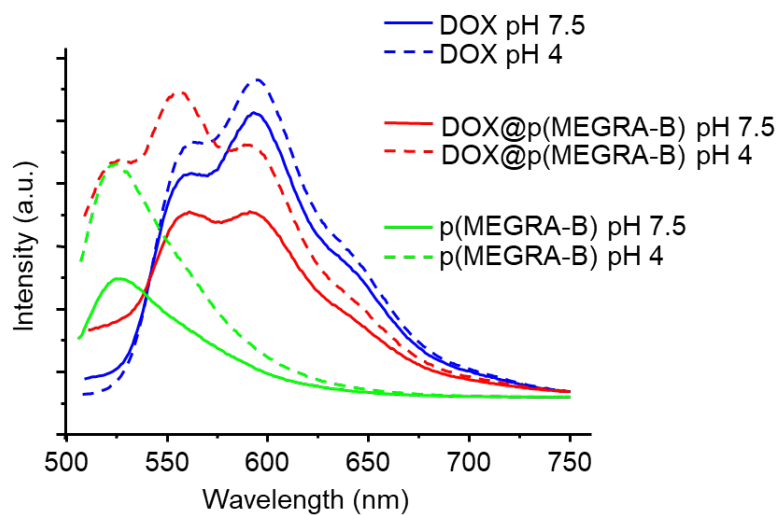


Figure S5. Fluorescence spectra of DOX, DOX@p(MEGRA-B) and p(MEGRA-B) at pH 7.5 and pH 4.  $C(\text{DOX}) = 0.02$  mM,  $C(\text{p(MEGRA-B)}) = 0.28$  mg/mL,  $H_2O$ , 25 °C.

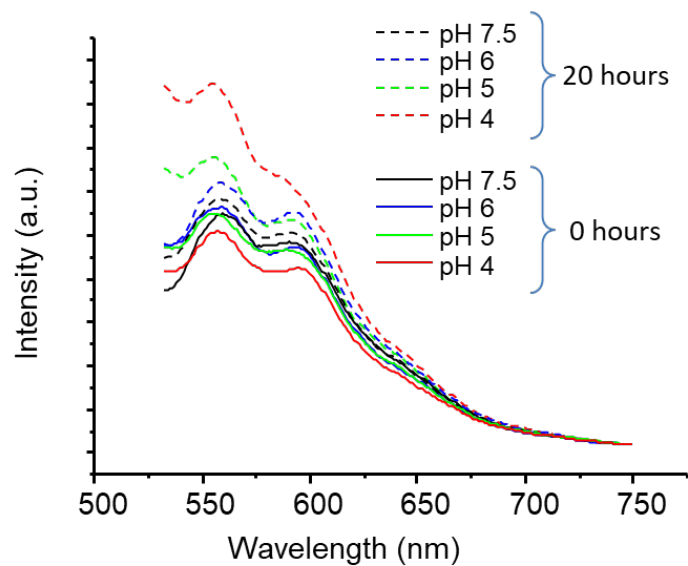


Figure S6. Fluorescence spectra of DOX@p(MEGRA-B) solution at different pH freshly prepared and after 20 hours.  $C(\text{DOX}) = 0.02 \text{ mM}$ ,  $\text{H}_2\text{O}$ ,  $25 \text{ }^\circ\text{C}$ .