

**Self-assembled polymer particles based on thermoresponsive biodegradable copolymers of amino acids**

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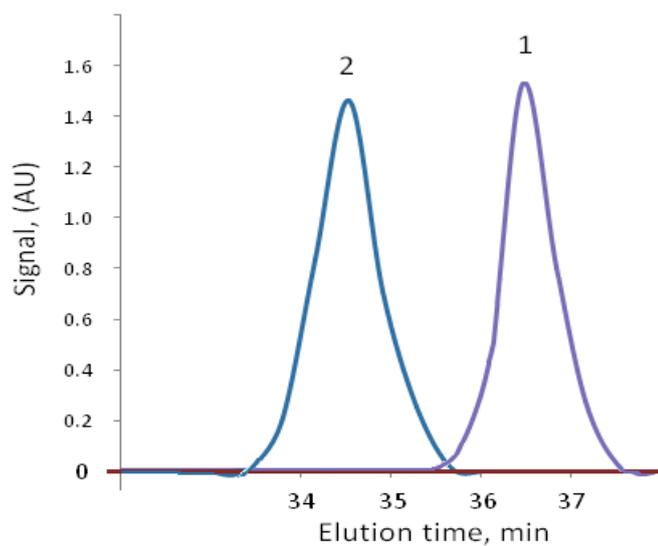
$\gamma$ -Benzyl-L-Glutamate, O-Benzyl-L-Serine, triphosgene,  $\alpha$ -pinene, n-hexylamine, phenyl isocyanate and other chemicals were purchased from Sigma-Aldrich (Germany). All solvents used in *N*-carboxy anhydride (NCA) synthesis, polymerization and modification reactions (received from Vecton, Russia) were distilled before use. Amphiphilic block-copolymers of poly(L-glutamic acid)-*b*-poly(L-serine) (PGlu-*b*-PSer) were obtained by stepwise ring-opening polymerization (ROP) of appropriate NCA<sup>1</sup>. The NCAs were synthesized as described elsewhere.<sup>2</sup> The structure of NCAs was confirmed using <sup>1</sup>H-NMR at Bruker 400 Avance (Germany) at 298 K in CDCl<sub>3</sub>.

1. R. Wilder and S. Mobashery, *J. Org. Chem.*, 1992, **57**, 2755.
2. E. Vlach, A. Ananyan, N. Zashikhina, A. Hubina, A. Pogodaev, M. Volokitina, V. Sharoyko and T. Tennikova, *Polymers*, 2016, **8**, 212.

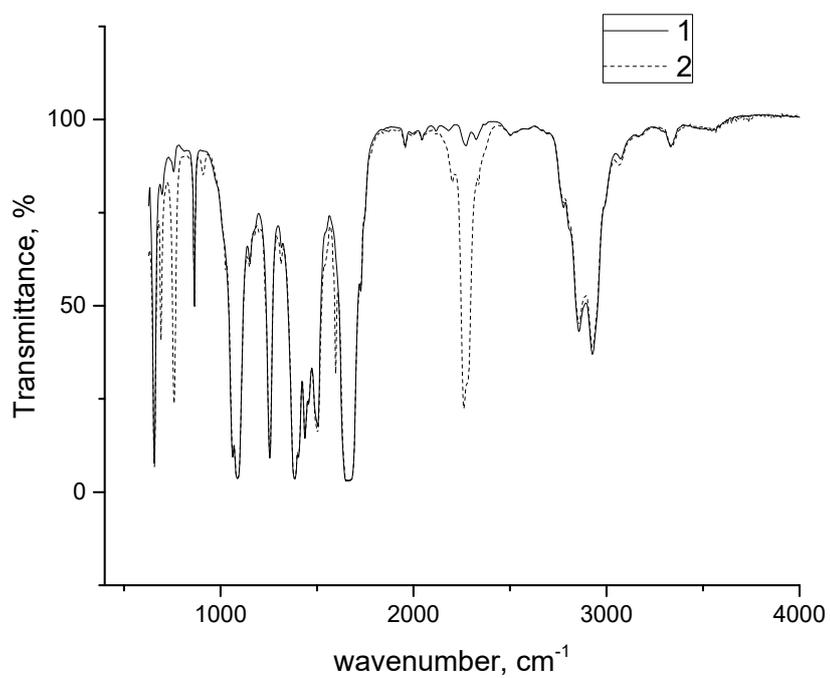
**<sup>1</sup>H NMR data**

NCA of  $\gamma$ -Glu-(Bzl): 2.05–2.39 (m, 2 H), 2.62 (t, 2 H), 4.40 (t, 1 H), 5.16 (s, 2 H), 6.68 (br. s, 1 H), 7.37 (m, 5 H).

NCA of Ser-(Bzl): 3.77 (m, 2H), 4.45 (t, 2H), 4.59 (q, 2H) 5.91 (br. s, 1H), 7.36 (m, 5H).



**Figure S1** Gel-permeation chromatography of PGlu (1) and PGlu-*b*-PSer (2).



**Figure S2** FTIR spectra: (1) reaction mixture at reaction start and (2) after the reaction of PSer with PhIC proceeded.