Supporting information

Sulfobetaines meet carboxybetaines: Modulation of thermo- and ion responsivity, water structure, mechanical properties and cell adhesion.

Martin Danko^{1,2}, Zuzana Kroneková², Miroslav Mrlik³, Josef Osicka¹, Ammar bin Yousaf¹, Andrea

Mihálová², Jan Tkac⁴, Peter Kasak^{1,*}

Zlin, Czech Republic.

9, 845 38 Bratislava, Slovak Republic

Content:

Figure S1: Swelling equilibrium after preparation of hydrogels

Figure S2: Transparency measurements of zwitterion hydrogels. The thickness of the gels was 1 mm at 20 °C.

Figure S3: Images of different hydrogels with different shape at 37 °C (upper row), 20°C (middle row) and 2°C (down row).

Figure S4: Repeatability of normalised swelling equilibrium of hydrogels immersed in 3.5 wt% NaCl and DI solution . Hydrogels were kept in pure water (pH~ 7.3) for 24 hours after preparation and prior to swelling experiment in NaCl solution

¹ Center for Advanced Materials, Qatar University, P.O.Box 2713, Doha, Qatar; e-mail: peter.kasak@qu.edu.qa

² Polymer Institute, Slovak Academy of Sciences, Dúbravská cesta 9, 845 41 Bratislava, Slovak Republic

³Centre of Polymer Systems, University Institute, Tomas Bata University in Zlin, Trida T, Bati 5678, 760 01,

⁴ Department of Glycobiotechnology, Institute of Chemistry, Slovak Academy of Sciences, Dúbravská cesta

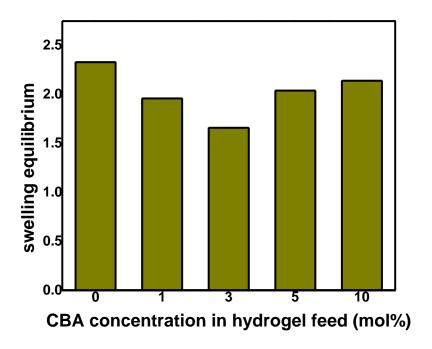


Figure S1: Swelling equilibrium after preparation of hydrogels

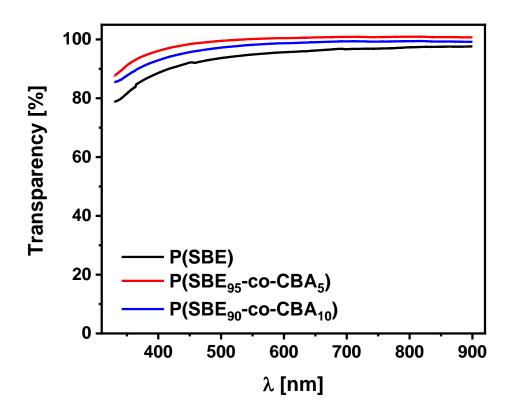


Figure S2: Transparency measurements of zwitterion hydrogels. The thickness of the gels was 1 mm at 20 °C.

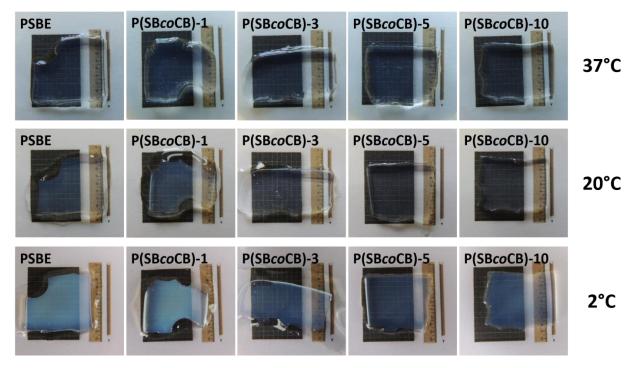


Figure S3: Images of different hydrogels with different shape at 37 $^{\circ}$ C (upper row), 20 $^{\circ}$ C (middle row) and 2 $^{\circ}$ C (down row).

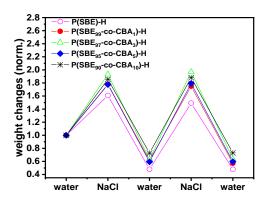


Figure S4: Repeatability of normalised swelling equilibrium of hydrogels immersed in 3.5 wt% NaCl and DI solution . Hydrogels were kept in pure water (pH~ 7.3) for 24 hours after preparation and prior to swelling experiment in NaCl solution.