

ELECTRONIC SUPPORTING INFORMATION

Dual hydrophilic polymers based on (meth)acrylic acid and poly(ethylene glycol) – synthesis and water uptake behavior

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Table S1. Assignment of the observed peaks in the MALDI-TOF mass spectra of the macro-CTA (mPEG_{2k}-CTA) and macro-initiator (mPEG_{1k}-Br) used for the P(EG-*b*-AA) synthesis.

	Structure	m/z calc	m/z found
mPEG-Br	$\text{CH}_3(\text{C}_2\text{H}_4\text{O})_{19}\text{C}_4\text{H}_6\text{O}_2\text{Br} + \text{Na}^+$	1039.47	1039.45
		1040.47	1040.46
		1041.47	1041.45
		1042.47	1042.45
		1043.47	1043.45
mPEG-CTA	$\text{CH}_3(\text{C}_2\text{H}_4\text{O})_{44}\text{C}_8\text{H}_{13}\text{O}_2\text{S}_3 + \text{Na}^+$	2212.17	2212.24
		2213.18	2213.24
		2214.18	2214.24
		2215.18	2215.24
		2216.18	2216.24

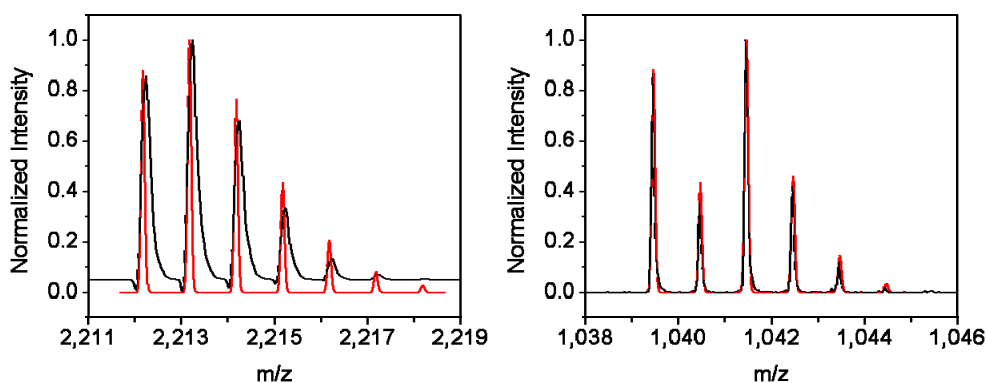


Figure S1. Overlay of calculated (—) and measured (—) isotopic pattern of mPEG_{2k}-CTA (*left*) and mPEG_{1k}-Br (*right*) used for the P(EG-*b*-AA) synthesis.

Table S2. Assignment of specific observed peaks in the MALDI-TOF mass spectrum and tandem MS spectrum of PAA (H1).

	Structure	m/z calc	m/z found
PAA (H1)	$\text{C}_3\text{H}_5\text{O}_2(\text{C}_3\text{H}_4\text{O}_2)_{12}\text{C}_5\text{H}_9\text{S}_3 + \text{Na}^+$	1125.26	1125.17
		1126.26	1126.18
		1127.26	1127.18
		1128.26	1128.17
H1 – H ₂ O	$\text{C}_3\text{H}_5\text{O}_2(\text{C}_3\text{H}_4\text{O}_2)_{10}(\text{C}_6\text{H}_6\text{O}_3)\text{C}_5\text{H}_9\text{S}_3 + \text{Na}^+$	1107.25	1107.65
		1108.25	1108.89
		1109.25	1110.27
		1081.27	1081.22
H1 – CO ₂	$\text{C}_3\text{H}_5\text{O}_2(\text{C}_3\text{H}_4\text{O}_2)_{11}(\text{C}_2\text{H}_4)\text{C}_5\text{H}_9\text{S}_3 + \text{Na}^+$	1082.27	1082.31
		1083.27	1083.40
		1084.27	1084.53
		1053.24	1052.93
H1 – Initiator	$\text{H}(\text{C}_3\text{H}_4\text{O}_2)_{12}\text{C}_5\text{H}_9\text{S}_3 + \text{Na}^+$	1054.24	1054.00
		1055.24	1055.11
		1056.24	1056.21
		959.26	959.11
H1 – Endgroup	$\text{C}_3\text{H}_5\text{O}_2(\text{C}_3\text{H}_4\text{O}_2)_{11}(\text{C}_3\text{H}_3\text{O}_2) + \text{Na}^+$	960.27	960.17
		961.27	961.22