

Supplementary Information

Toward the design of superabsorbent materials for non-polar organic solvents and oils: Ionic content dependent swelling behaviour of cross-linked poly(octadecyl acrylate)-based lipophilic polyelectrolytes

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Table S1. Swelling behaviors of lipophilic polyelectrolyte gels (**EG18(X%)**) and nonionic gel (**NG18**) in various organic solvents.

	ϵ	Swelling degree (Q)					
		NG18	EG18 (1.0%)	EG18 (2.5%)	EG18 (5.0%)	EG18 (7.5%)	EG18 (10%)
hexane	1.9	11	21	21	12	15	12
toluene	2.4	25	35	31	24	18	13
chloroform	4.8	49	89	85	99	95	211
tetrahydropyran	5.6	33	53	59	93	72	124
chlorobenzene	5.6	35	63	48	70	93	159
ethyl acetate	6.0	0.4	1.4	1.9	1.3	3.1	2.4
1-chlorobutane	7.4	40	64	84	89	101	202
tetrahydrofuran	7.6	23	72	82	122	147	217
2-octanol	8.2	2.0	1.6	0.8	1.9	0.2	0.9
dichloromethane	8.9	25	111	150	128	201	324
1,2-dichloroethane	10.4	2.5	5.1	72	158	164	369
2-octanone	10.4	1.7	2.1	2.7	3.3	123	238
2-heptanone	12.0	1.2	1.3	0.8	3.4	124	214
4-methyl-2-heptanone	13.1	1.3	0.5	0.7	2.4	103	234
cyclopentanone	13.6	0.5	1.3	2.6	3.1	5.2	4.4