

ELECTRONIC SUPPLEMENTARY INFORMATION FOR:

Poly[*N*-(2-Hydroxypropyl)Methacrylamide] Nanogels

by RAFT Polymerization in Inverse Emulsion

Harald Wutzel,^{a,b} Felix H. Richter,^a Yuanchao Li,^c Sergei S. Sheiko^c and Harm-Anton Klok^{*a}

^a *École Polytechnique Fédérale de Lausanne (EPFL), Institut des Matériaux and Institut des Sciences et Ingénierie Chimiques, Laboratoire des Polymères, Bâtiment MXD, Station 12, CH-1015 Lausanne, Switzerland*

Fax: + 41 21 693 5650; Tel: + 41 21 693 44866; E-mail: harm-anton.klok@epfl.ch

^b *Present address: Chalmers University of Technology, Department of Chemical and Biological Engineering, Polymer Technology, SE-412 96 Gothenburg, Sweden. Fax: + 46 31772 8229; Tel: + 46 31772 10 00; E-mail: wutzel@chalmers.se*

^c *Department of Chemistry, University of North Carolina, Chapel Hill, North Carolina, 27599-3290, USA . Fax: +1 919 962 2388; Tel: +1 919 843 5270; E-mail: sergei@email.unc.edu*

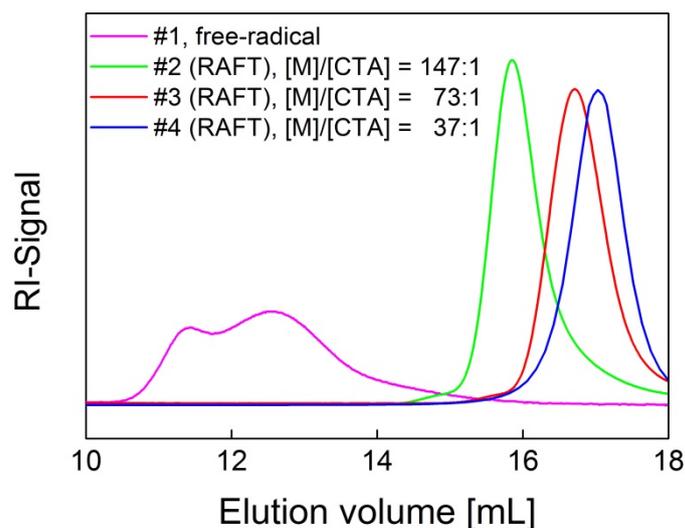


Figure S1: SEC-traces (RI-signal) of polymers prepared in experiments # 1 - # 4 ($C_{\text{HPMA}} = 2.3\text{M}$, solvent: $\text{H}_2\text{O}/\text{MeOH}$, $T = 80\text{ }^\circ\text{C}$, $t = 4\text{ h}$).

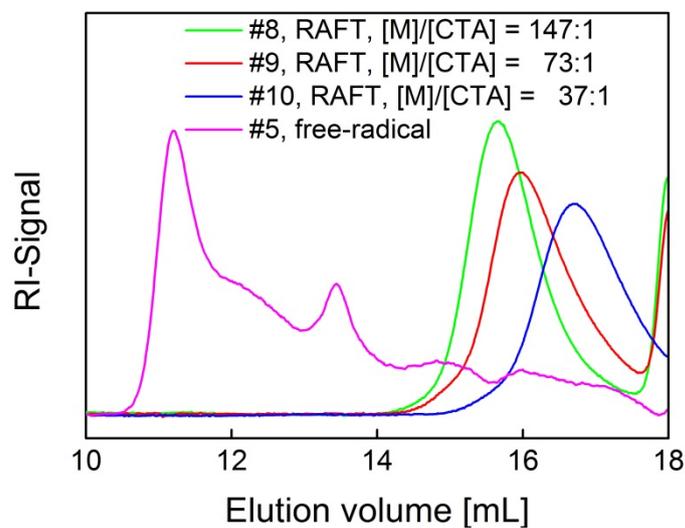


Figure S2: SEC-traces (RI-signal) of polymers prepared in experiments # 5, # 8, # 9 and # 10 ($C_{\text{HPMA,H}_2\text{O}} = 2.3\text{M}$, surfactant: HM 1083, solvent: $\text{H}_2\text{O}/\text{MeOH}$ and cyclohexane, $T = 80\text{ }^\circ\text{C}$, $t = 2\text{ h}$).

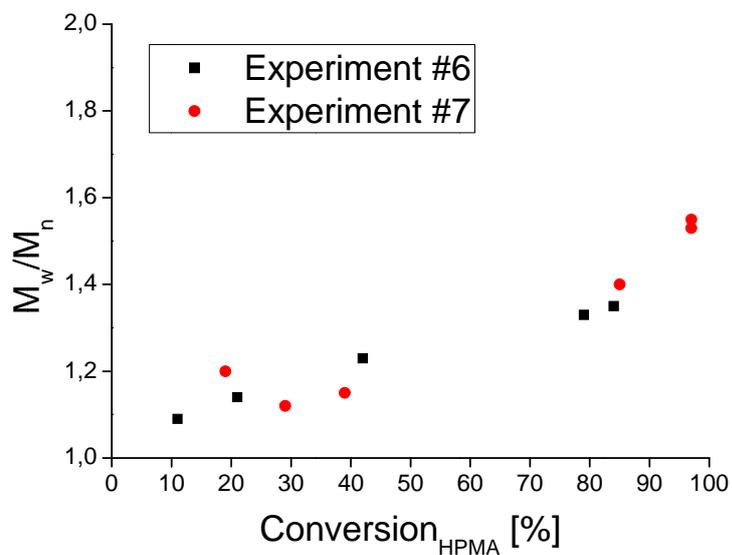


Figure S3. Evolution of M_w/M_n (derived from SEC) with HPMA conversion in the inverse RAFT emulsion polymerization experiments # 6 and # 7.

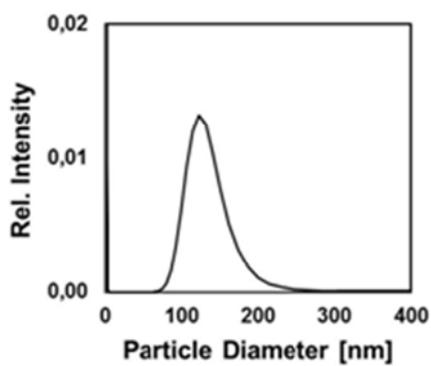


Figure S4: DLS particle size distribution of PHPMA nanoparticles from experiment # 13 directly after dissolution in EtOH.