Electronic Supplementary Material (ESI) for Polymer Chemistry.

SUPPORTING INFORMATION

Table S1. Characteristics of the Ludox® TM-50 aqueous colloidal silica sol.

[SiO_2] (wt. % / g L^{-1}) [a]	D_n (nm) / D_w/D_n [b]	pH	ρ□□□□□□ (g cm^{-3})	Specific surface area (m^2 g^{-1}) [c]
50 / 550	27 / 1.07	9 ± 0.1	2.3 [d]	118

[a]Determined by gravimetric analysis. [b]Number-average diameter and polydispersity index determined by TEM by counting more than 200 particles. The weight average diameter, D_w, was calculated from: $D_w = \frac{\sum n_i D_i^4}{\sum n_i D_i^3}$, where n_i designates the number of particles of diameter D_i. [c]Supplier data record.

[d] Determined according to : $\rho_{silica} = \frac{W_{silica}}{\frac{1}{\rho_{Ludox}} - W_{water}}$ where W_{silica} and W_{water} are weight fractions of silica and water, respectively ($W_{silica} = W_{water} = 0.5$) and ρ_{Ludox} is the density of the Ludox suspension as given by the manufacturer ($\rho_{Ludox} = 1.4$ g cm^{-3})

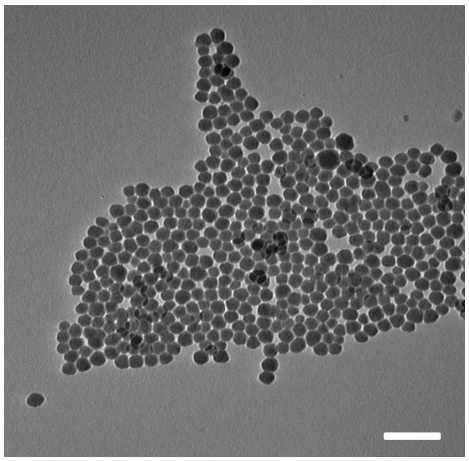

Figure S1. TEM image of the colloidal silica sol used in this study. Scale bar: 100 nm.

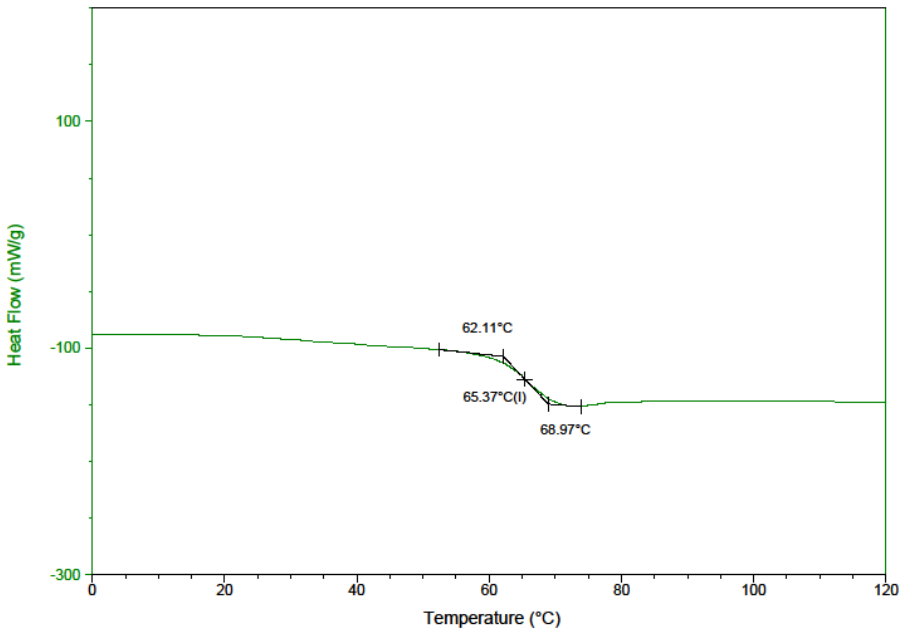

Figure S2. DSC thermogram of latex particles obtained in run 2. [Sty] = 12.8 g L^{-1}, [BuA] = 3.3 g L^{-1}, [DVB] = 0.2 g L^{-1}, [SDS] = 0.5 g L^{-1}, [SSNa] = 0.60 g L^{-1} and [KPS] = 0.70 g L^{-1}.

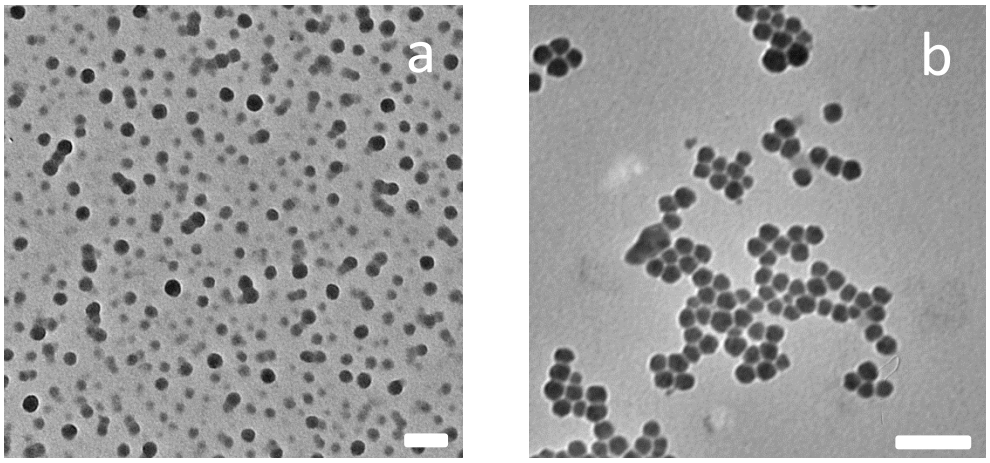

Figure S3. TEM image of the latex particles obtained when: (a) [Sty] = 10.3 g L^{-1}, [BuA] = 3.3 g L^{-1}, [DVB] = 3 g L^{-1}, [SDS] = 0.5 g L^{-1}, [SSNa] = 0.60 g L^{-1} and [KPS] = 0.70 g L^{-1} (run 1). (b) [Sty] = 12.8 g L^{-1}, [BuA] = 3.3 g L^{-1}, [DVB] = 0.2 g L^{-1}, [SDS] = 0.5 g L^{-1}, [SSNa] = 0.60 g L^{-1} and [KPS] = 0.70 g L^{-1} (run 2). Scale bar: 100 nm.

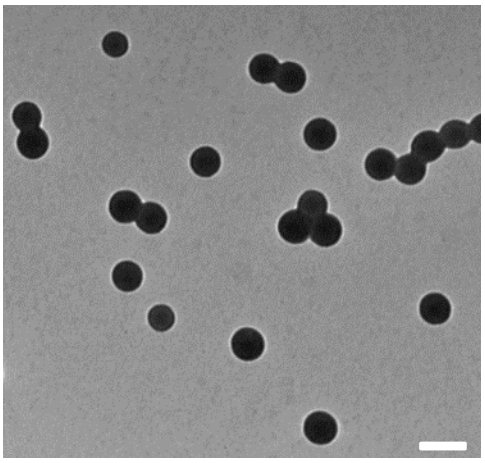

Figure S4. TEM image of the latex particles obtained when [Sty] = 43 g L^{-1}, [BuA] = 11 g L^{-1}, [DVB] = 0.5 g L^{-1}, [SDS] = 1.5 g L^{-1} and [KPS] = 0.25 g L^{-1} (run 13, Table 2). Scale bar: 100 nm.

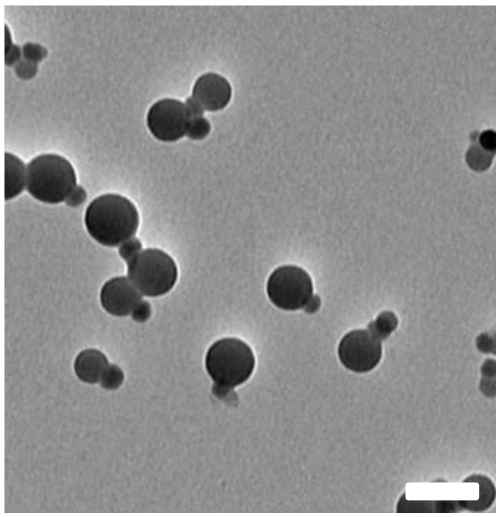

Figure S5. TEM images of Ludox® TM-50 silica/P(Sty-*co*-BuA) biphasic particles obtained for [SDS] = 1 g L^{-1}. [Sty] = 43 g L^{-1}, [BuA] = 11 g L^{-1}, [DVB] = 0.5 g L^{-1}, [γ-MPS] = 1.5 μmol m^{-2}, [KPS] = 0.25 g L^{-1} and [SiO_2] = 13 g L^{-1} (run 21, Table 2). Scale bar: 100 nm