

## Supporting information

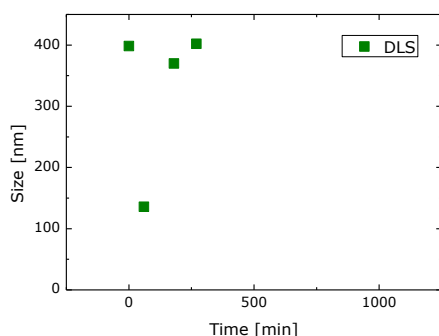
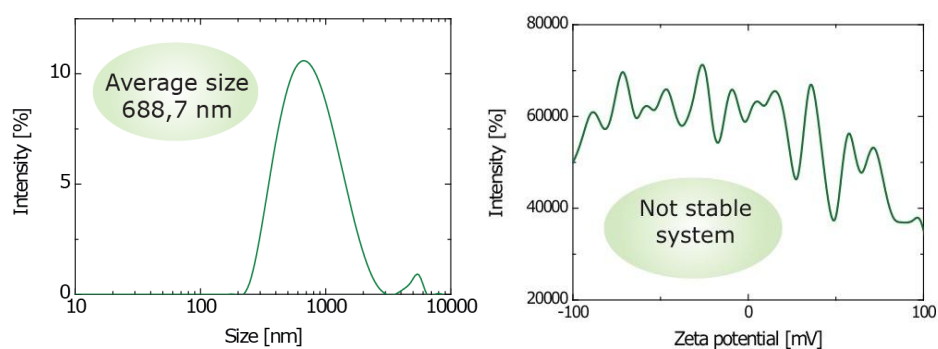
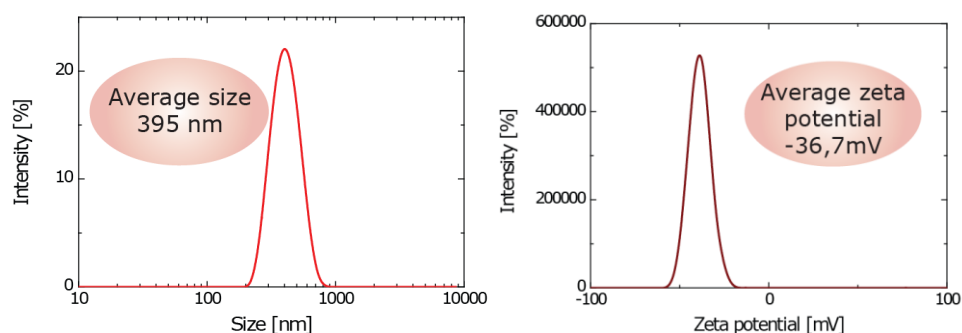


Figure S1. On the left graph, evolution of the particle size with time. At time 0min (just before addition of initiator), large emulsion droplets of around 400nm are measured by DLS in the dispersion taken from the reaction solution before starting the polymerization. On the right, turbidity change of the dispersions is shown.



**Figure S2.** Size distribution and zeta potential measurement of polystyrene initiated with AIBN (1mM) with no additional salt.



**Figure S3.** Size distribution and zeta potential measurement of polystyrene initiated with AIBN (1mM) with 1mM NaCl in the reaction solution.