

Supplementary Information

Figure S1 : Pictures of CNCAs₁₄ and CNCAs₂₀ dispersion, at 0.5 % w/w with (a) CNCAs₁₄ after 1h, (b) CNCAs₁₄ after 24h, (c) CNCAs₂₀ after 1h, (d) CNCAs₂₀ after 24h.

Dispersions of CNCAs were allowed to rest at room temperature after 1 minute of sonication (with 3 sec on, 3 sec off at 20% power). Pictures were taken after 1 hour and after 24 hours

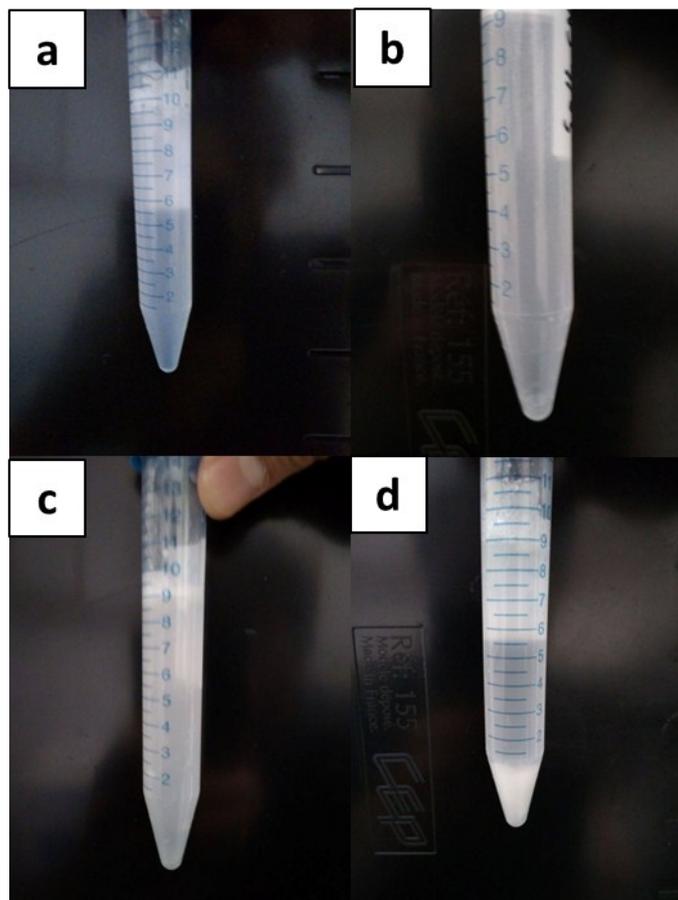


Figure S2 : AFM observation of isolated CNCAs₁₄ particles in the continuous phase of the styrene-in-water emulsion.

The styrene-in-water emulsion (10/90 v/v) stabilized by CNCAs₁₄ nanoparticles (5 g/L of styrene) was prepared by sonication with an ultrasonic tip for 24 sec (with 3 sec on, 3 sec off at 30% power). The emulsion was allowed to rest at room temperature for 16h and centrifugated to accelerate the creaming of the large droplets. After removal of the cream, the continuous phase was analyzed by liquid AFM, by pouring a single drop of the liquid on HOPG substrate (Highly Oriented Pyrolytic Graphite).

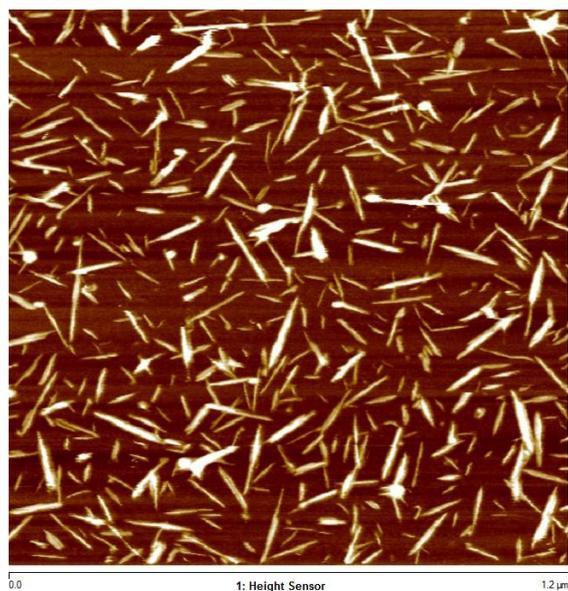


Figure S3 : SEC traces showing the bimodal distribution of the polystyrene latexes polymerized with (a) AIBN, (b) V70 and (c) Lauroyl peroxide as initiators.

For these experiments, salt-free samples were solubilized in THF (1% w/w) marked with 1,2,4-trichlorobenzene as flow marker, and injected in a PL-GPC 50 Plus chromatograph.

