Supplementary Information

Pickering emulsions stabilized with Differently Charged Particles

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SI1. ^{1}H NMR spectra of the copolymers

a)

b)

c)

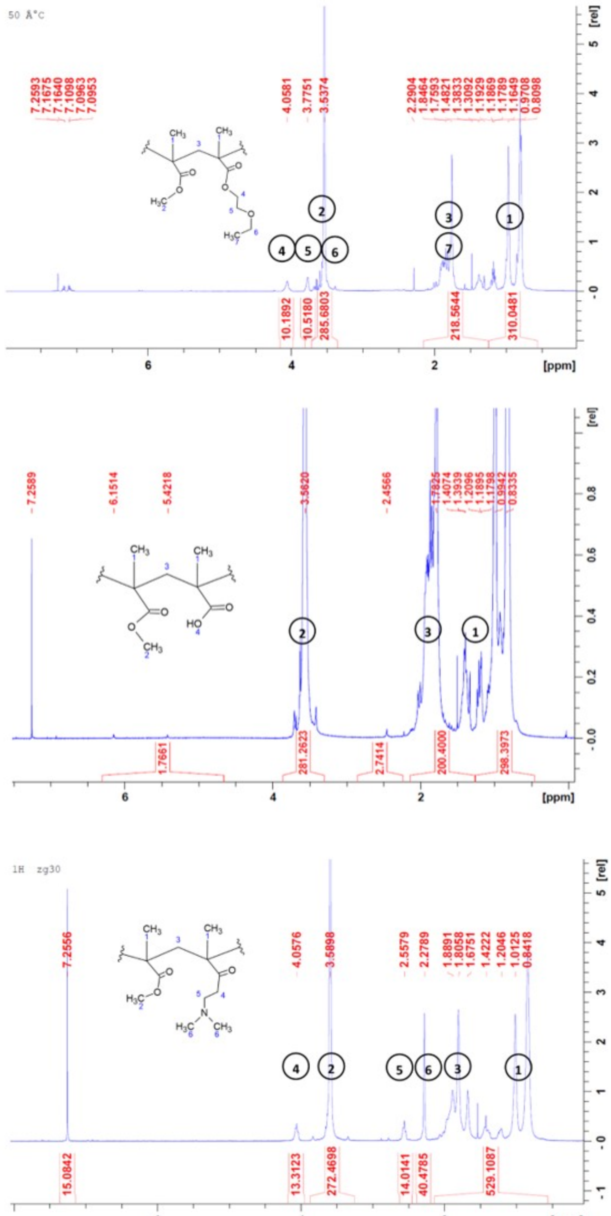


Figure S1. ^{1}H NMR spectra of N-PMMA (a), A-PMMA (b) and C-PMMA (c) copolymers. The peak at 7.25 ppm is that of the residual protons of the $CDCl_3$ solvent.

SI2. SEM pictures of the particles

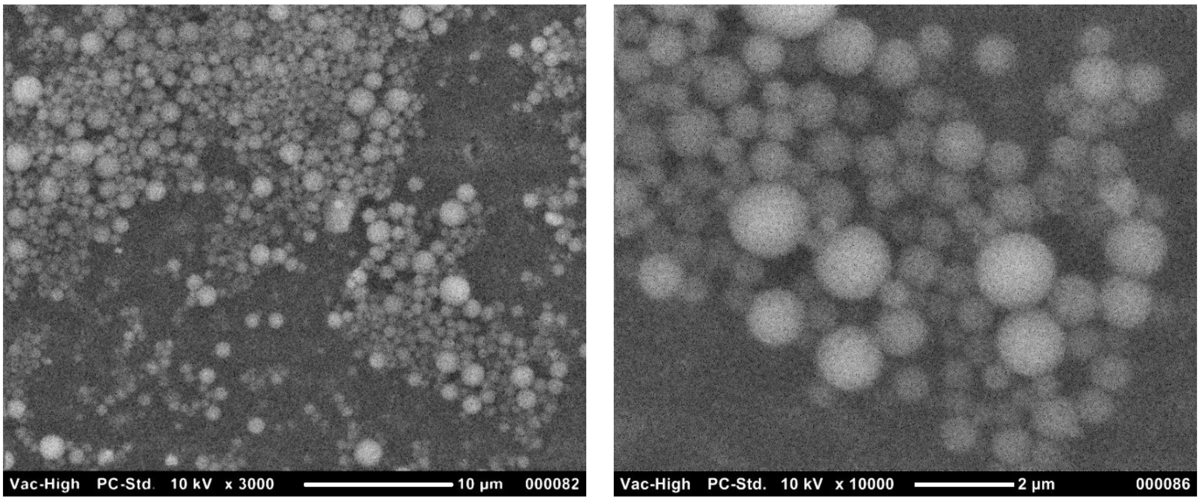


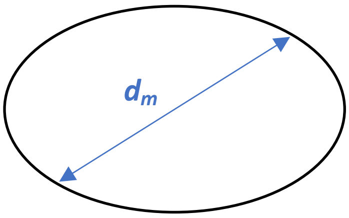
Figure S2. SEM images of a-PMMA at x3 000 (left) and x10 000 (right) magnification. Similar shapes were obtained for the other types of particles.

SI3. Aspect of the emulsions

Figure S3. Pickering emulsions made with 25 mg of particles per cm^3 of oil. From left to right N-, A-, C-, A/N-, N/C- and A/C-emulsions. The picture was taken 4 months after the preparation of emulsions. No release of free oil was observed on top of the emulsions.

SI4. Droplets diameters measurements for A-emulsions

To obtain the area of non-spherical droplets of various shapes, a mean (effective) diameter d_m was measured diagonally with respect to the directions of the long and short dimensions in the droplets.



This diameter was then used as the apparent diameter of spherical droplets. So as to ensure that no systematic errors have been introduced by using d_m, the cross-section area of several non-spherical droplets from different emulsions were manually measured (using Image J) and compared with the spherical cross-section area calculated from d_m. The results are shown in the next tables for three A-emulsions. The absolute errors were always below 10% and the errors tend to compensate one another. Finally, the mean values of the cross-sectional areas calculated from d_m were close to the real ones (absolute errors below 5%), and less than the standard deviations of the diameters measurements for spherical droplets (9%).

Emulsion 1	**Measured "diameter" (µm)**	**Manually measured area (µm²)**	**Area calculated from the diameter (µm²)**	**Error (%)**
	132	14083	13682	−3%
	164	18372	21124	15%
	93	6879	6793	−1%
	105	8556	8659	1%
	131	13640	13478	−1%
	104	8756	8495	−3%
	125	12066	12272	2%
	151	18945	17908	−5%
Mean	***126***	***12662***	***12801***	***1%***

Emulsion 2	**Measured "diameter" (µm)**	**Manually measured area (µm²)**	**Area calculated from the diameter (µm²)**	**Error (%)**
	135	13521	14314	6%
	169	20330	22432	10%
	125	13483	12272	−9%
	155	15911	18869	19%
	149	17572	17437	−1%
	139	12845	15175	18%
	135	16333	14314	−12%
	133	13440	13893	3%
Mean	***143***	***15429***	***16088***	***4%***

Emulsion 3	Measured "diameter" (µm)	Manually measured area (µm²)	Area calculated from the diameter (µm²)	Error (%)
	152	16858	18146	8%
	132	14954	13685	−8%
	170	25100	22698	−10%
	152	21363	18146	−15%
	183	24397	26302	8%
	176	23 597	24328	3%
	160	20562	20106	−2%
	142	19292	15837	−18%
Mean	***158***	***20765***	***19906***	***−4%***

SI5. Simulation of a superimposition of particles in a CLSM picture

Two pictures of A-emulsion droplets colored in blue and in red were merged with Image J to simulate the superimposition of differently colored particles of a DCP emulsion caused by their adsorption as multilayers. The result of the stacking of both blue and red dots is a purple color of the droplets.

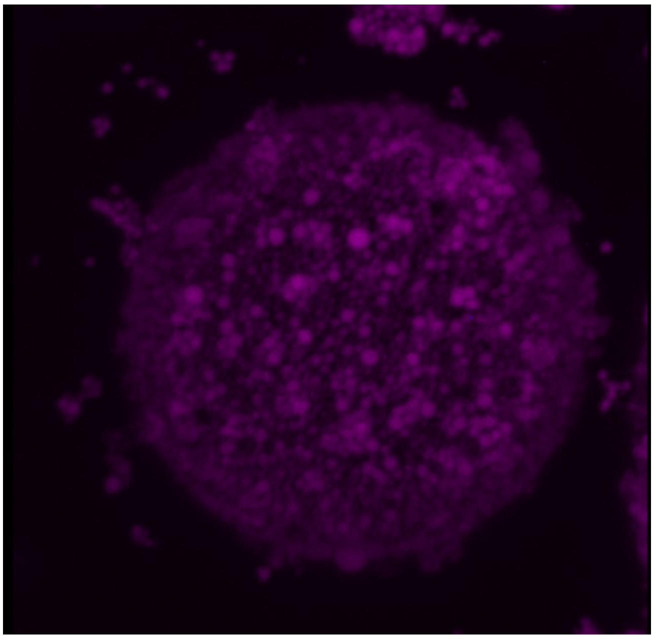


Figure S5. Merging of the same images colored in blue and in red. The superimposition of the particles with themselves appears as purple.