Electronic Supplementary Material (ESI) for Soft Matter.

Coalescence in concentrated Pickering emulsions under shear

SUPPORTING INFORMATION

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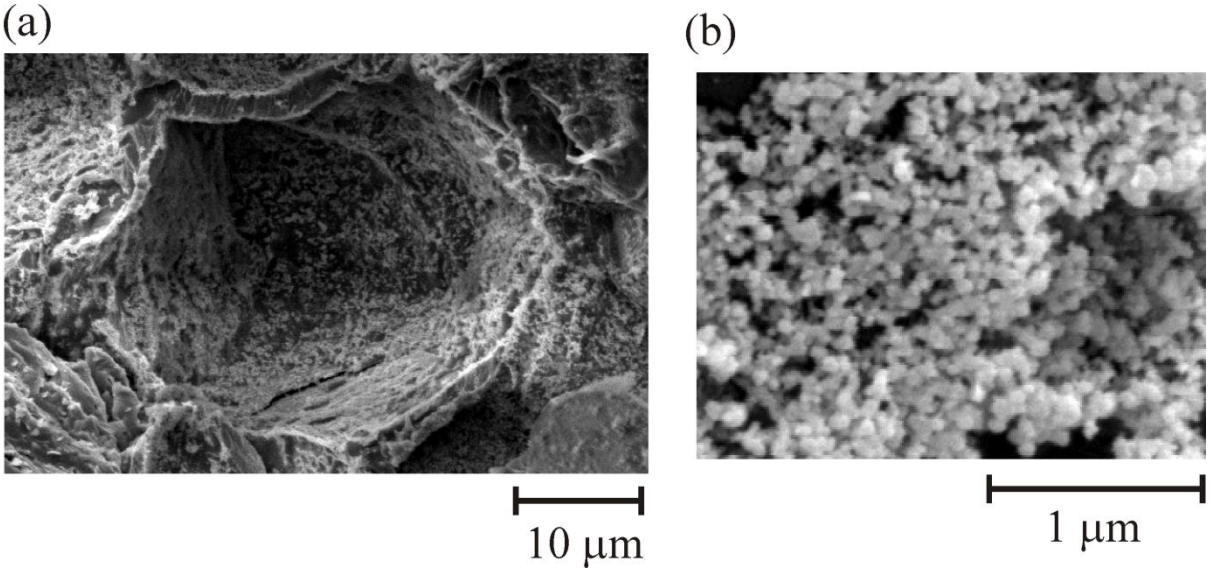

Figure S1. (a) Cryo-SEM image of an emulsion drop in water coated by silanised silica particles. The frozen oil was removed during fracturing. (b) Image of the particle aggregates attached to the interface.

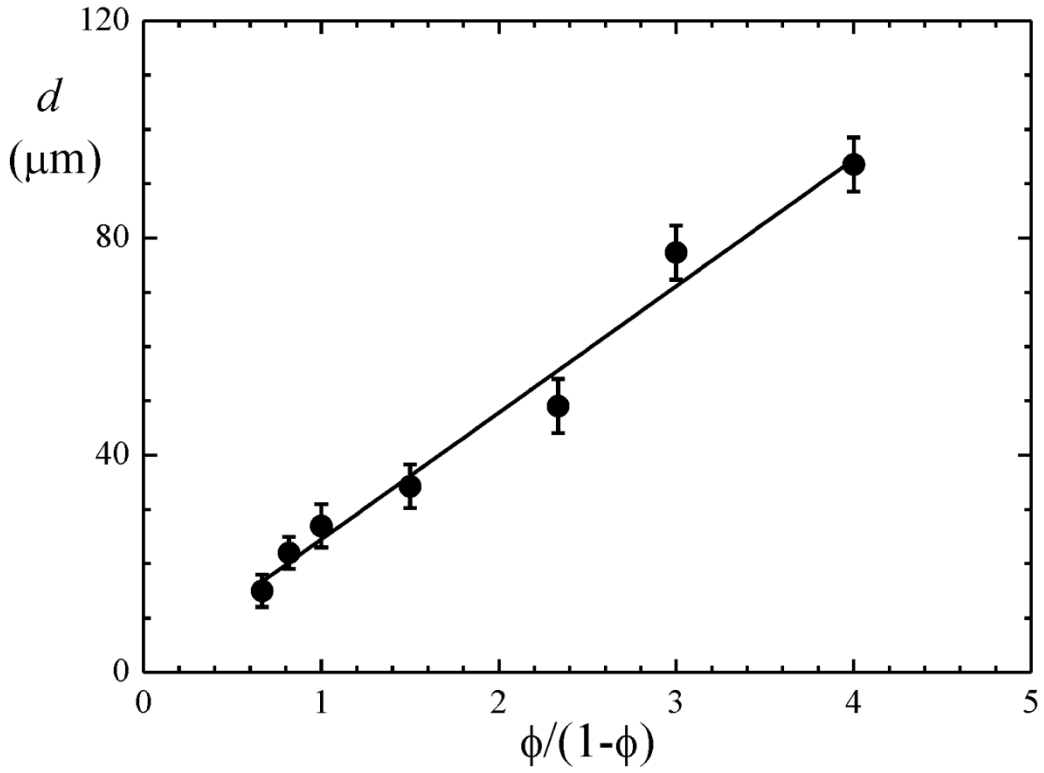

Figure S2. Drop volume fraction (ϕ) dependence of the average drop size (d) in the Pickering emulsions. A constant concentration of particles was initially dispersed in the aqueous (continuous) phase of the emulsions. The solid line is the fitted variation in d obtained assuming that it is a linear function of the ratio of the volumes of oil and aqueous phases in the emulsion.

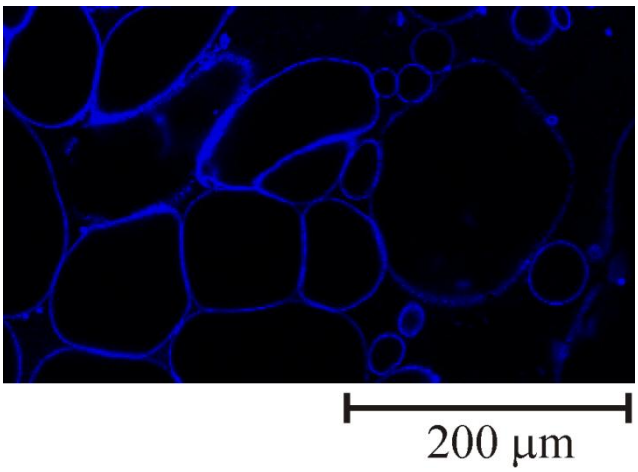

Figure S3. Confocal fluorescence image of the particle shells coating drops in an emulsion (ϕ = 75 vol.%, C_{NaCl} = 0.001 M) after shearing. The applied stress has caused some drops to coalesce together. The coalesced drops are trapped at an intermediate stage of fusion and have not relaxed back into spherical shapes.