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An approach to enhanced redispersibility of cellulose nanocrystals *via* freeze-drying their Pickering emulsions

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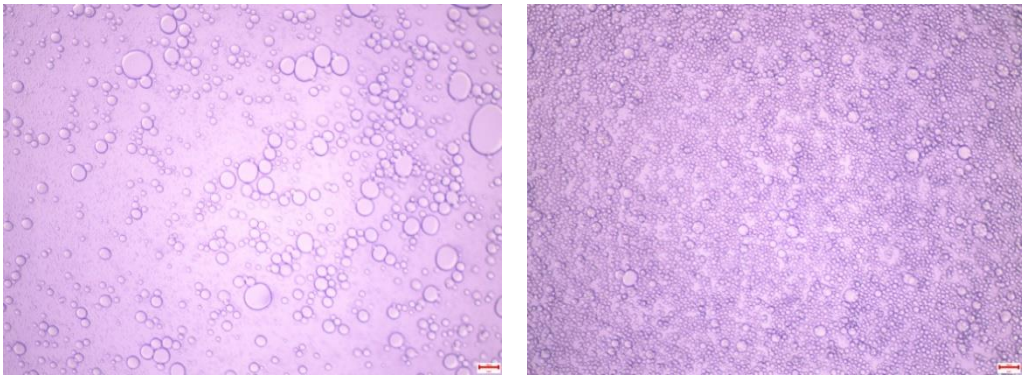
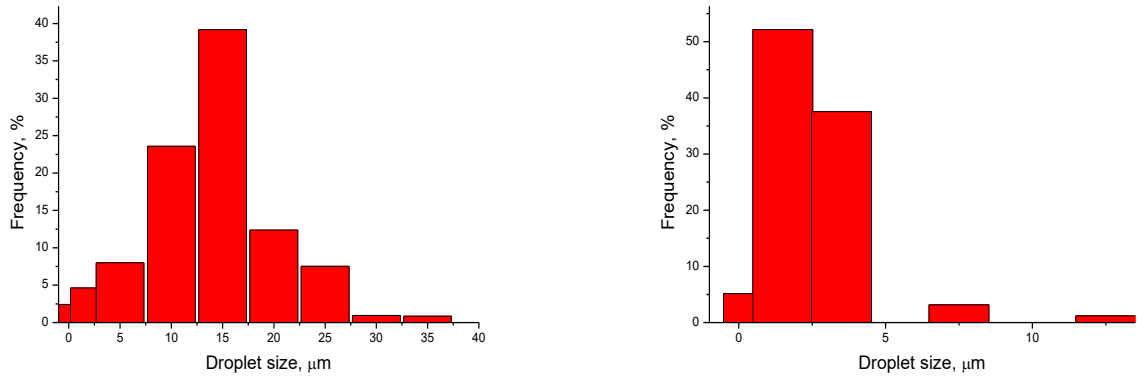


(a) (b)

Figure S1 POM images of the CNC-stabilized cyclohexane-in-water Pickering emulsion (a) and the CNC-stabilized cyclohexane-in-water Pickering emulsion with a 0.02 M KCl additive (b).



(a) (b)

Figure S2 Histograms of droplet size distribution for the CNC-stabilized cyclohexane-in-water Pickering emulsion (a) and the CNC-stabilized cyclohexane-in-water Pickering emulsion with a 0.02 M KCl additive (b).

Table S1. Specific surface area values of the CNC-based porous materials prepared by different methods

Method of preparation*	1	2	3	4
BET specific surface area, m^2g^{-1}	40	120	90	280

*1 is freeze-drying of the CNC aqueous suspension;
2 is drying of the CNC ethanol organogel in supercritical CO_2;
3 is freeze-drying of the CNC-stabilized cyclohexane /water Pickering emulsion;
4 is freeze-drying of the CNC-stabilized cyclohexane /water Pickering emulsion with a 0.02 M KCl additive.

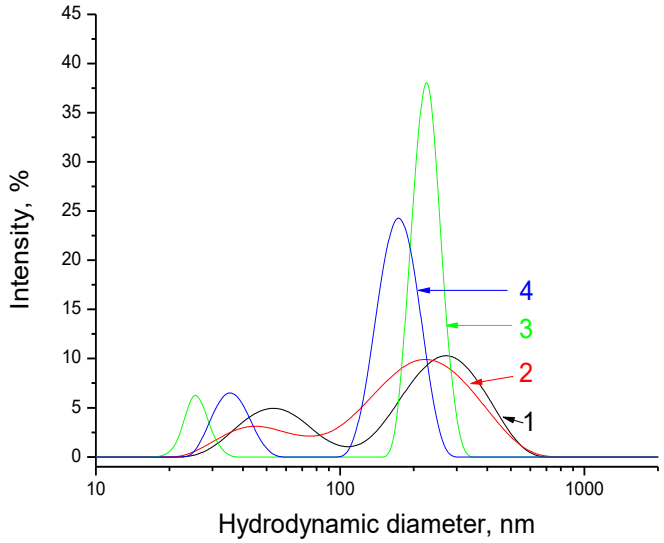


Figure S3 Particle size distribution in water for: 1 – a never-dried CNC aqueous suspension; 2 – the redispersed cryogel obtained by conventional freeze-drying of the CNC aqueous suspension; 3 – the redispersed cryogel obtained by freeze-drying of the CNC-stabilized cyclohexane/water Pickering emulsion; 4 – the redispersed cryogel obtained by freeze-drying of the CNC-stabilized cyclohexane/water Pickering emulsion with a 0.02 M KCl additive. The suspension concentration is 0.2 gL^{-1}.