

Quiescent Water-in-Oil Pickering Emulsions as a Route toward Healthier Fruit Juice Infused Chocolate Confectionary

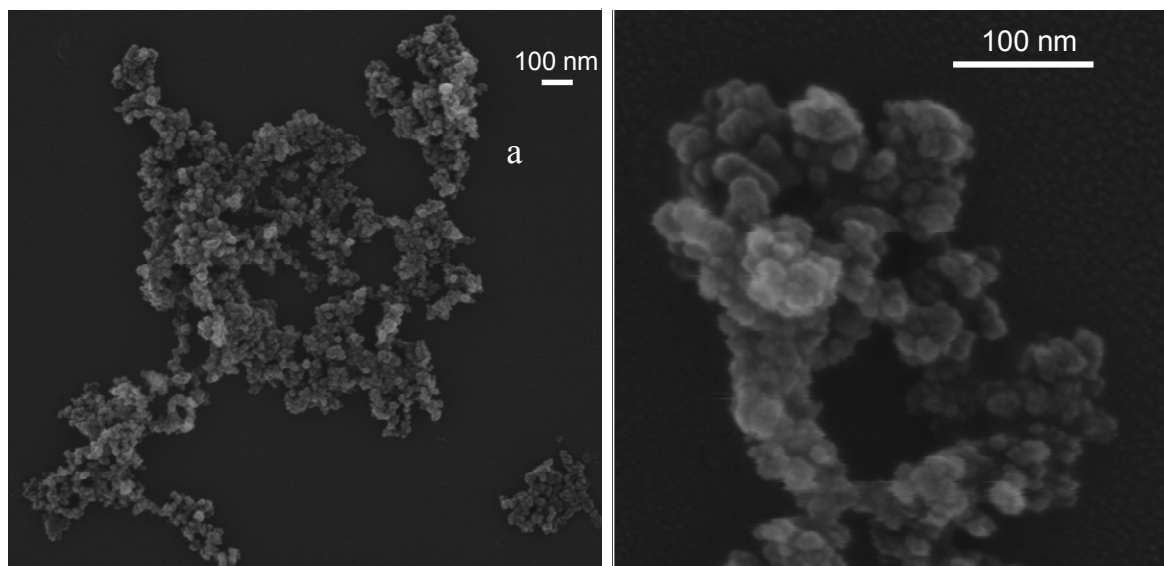
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Supporting Information

Characterization of fumed silicate particles

Aggregate morphology was analyzed by FEG-SEM in dry conditions.



Figures S1. (a): aggregate of silica nanoparticles (type HDK H18). (b): magnified view of the particles.

Scale bars for both pictures: 100 nm.

Visible are the primary particles (5-30nm) aggregated into flocs, in addition to higher order structures in a fractal-like system.

Emulsions utilizing silica as the sole emulsifying component

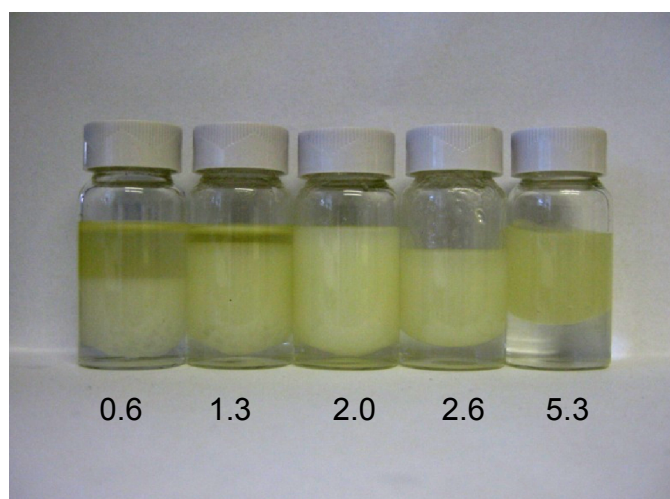


Figure S2. (a): pictures of emulsions prepared with a 1:1 water: oil phase weight ratio, different HDK H2O silica particle concentrations (in wt% with respect to the aqueous phase)

Note the presence of an excluded water below the emulsion phase. The water quantity increases with additional silica content, especially at 5.3 wt% silica. This is due to the formation of a silica gel matrix thereby excluding water from the emulsion. As the viscosity of such a system is so high, it requires an increasing level of shear to disperse water droplets within the oil gel.