

**Influence of the degree of fluorination on the behaviour of  
silica particles at air-oil surfaces**

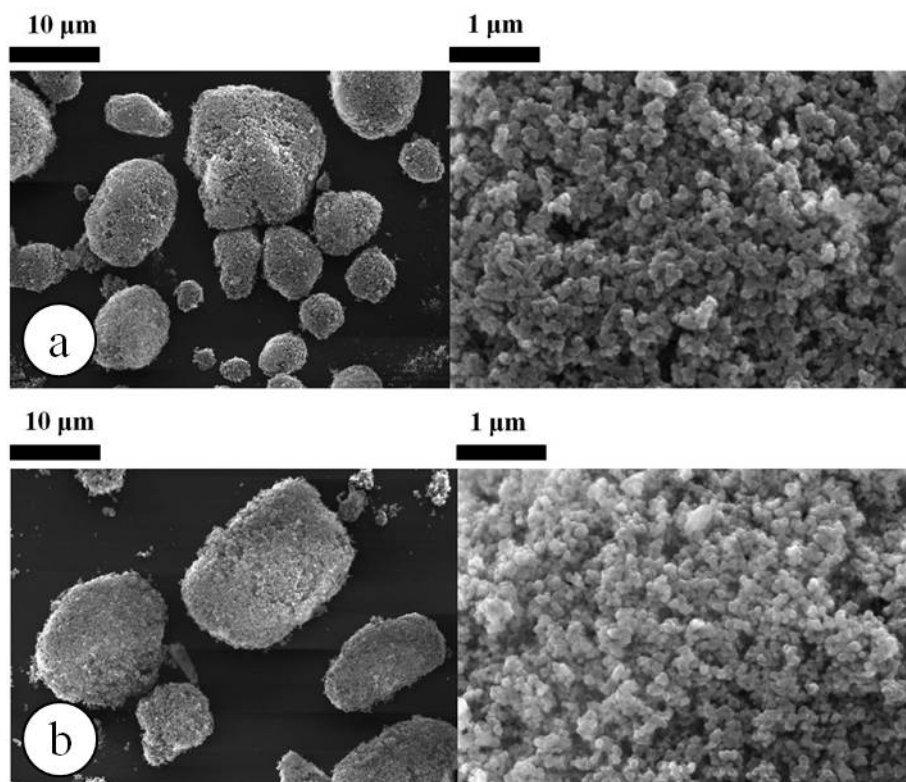
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Soft Matter:            Electronic Supplementary Information file

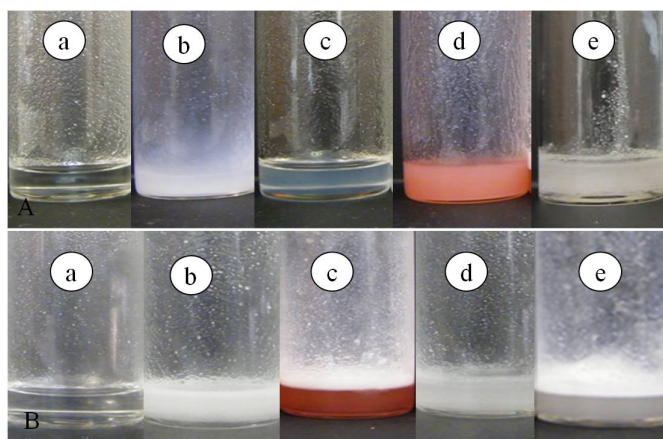
**Figure 1.** SEM images of (a) 75% SiOH fluorosilica and (b) 59% SiOH fluorosilica particles.



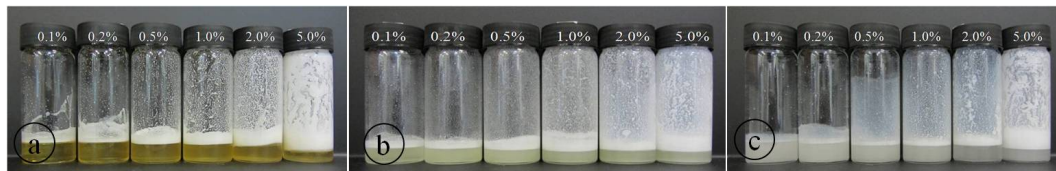
**Figure 2.** Photos of vessels containing fumed silica particles (50 mg) and liquid (3 cm<sup>3</sup>) mixtures after agitation.

A: hydrophilic 100% SiOH for (a) hexadecane, (b) perfluorohexane, (c) benzyl acetate, (d) diiodomethane and (e) glycerol.

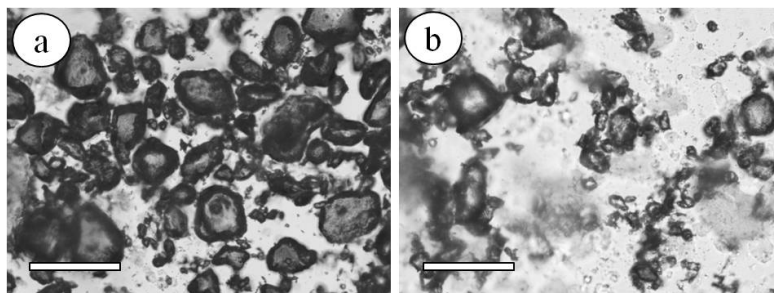
B: fluorosilica 75% SiOH for (a) cyclohexane, (b) geraniol, (c) diiodomethane, (d) formamide and (e) water.



**Figure 3.** Photos of foams stabilised by various concentrations (given) of 59% SiOH fluorosilica particles 10 min. after preparation by hand shaking for (a) eugenol, (b)  $\alpha$ -bromonaphthalene and (c) ethylene glycol.



**Figure 4.** Optical microscopy images of some of the foams shown in ESI Figure 3 stabilised by 0.5 wt.% particles. (a)  $\alpha$ -bromonaphthalene and (b) ethylene glycol. Scale bar = 100  $\mu\text{m}$ .



**Figure 5.** Foam volume *versus* time for foams stabilised by 2 wt.% of 59% SiOH fluorosilica particles made using a rotor-stator homogeniser (1 min.) with subsequent hand shaking (30 sec.).

