

# Effect of morphology on interactions between nanoparticle-stabilised air bubbles and oil droplets

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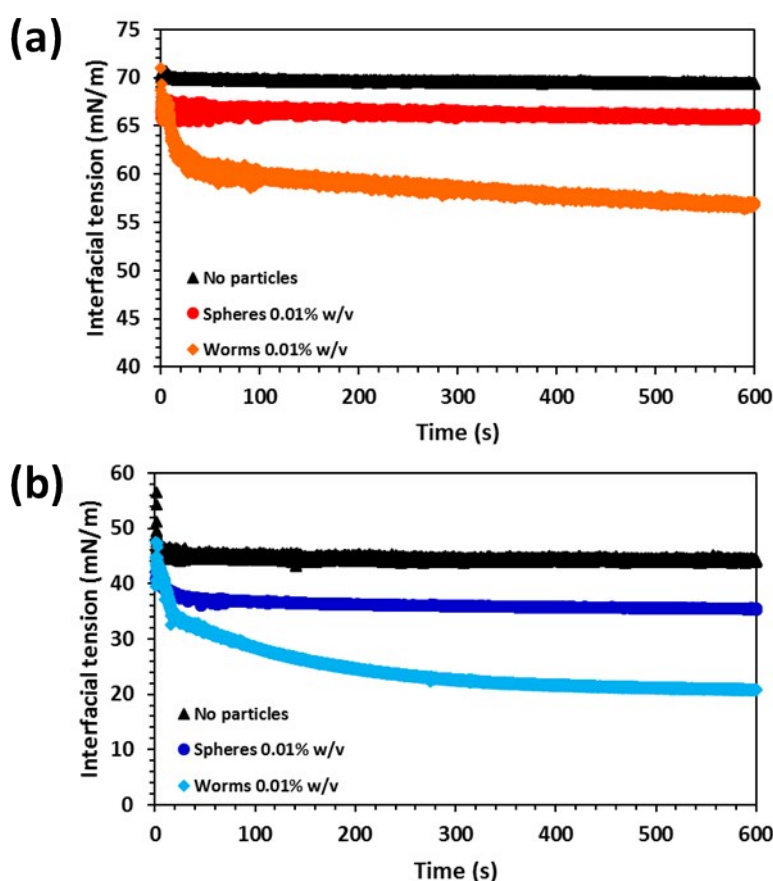
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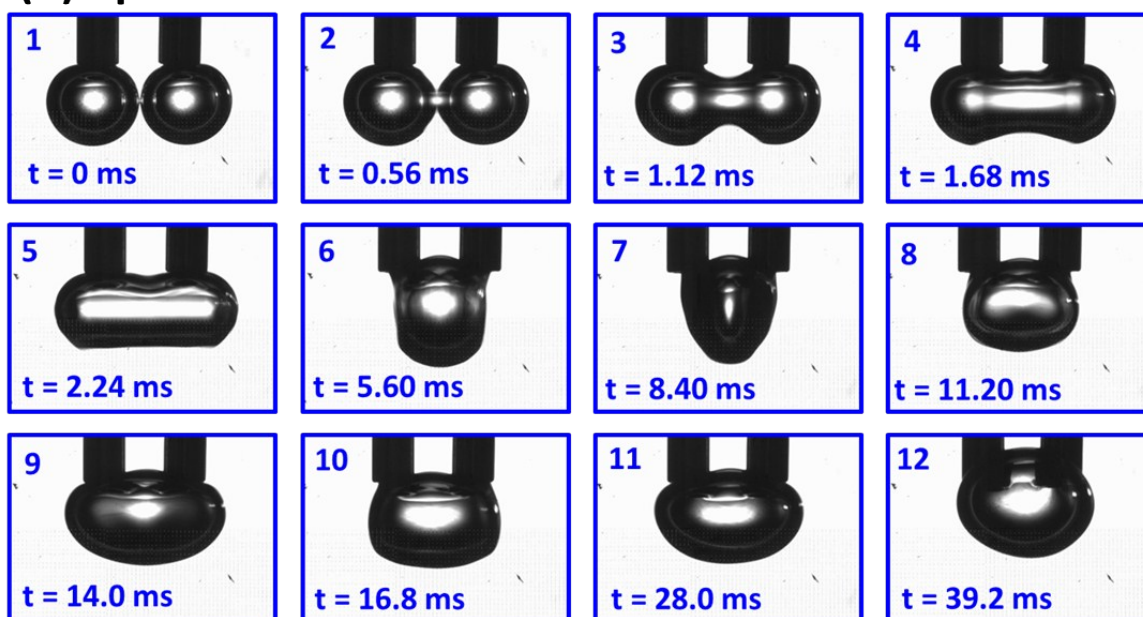
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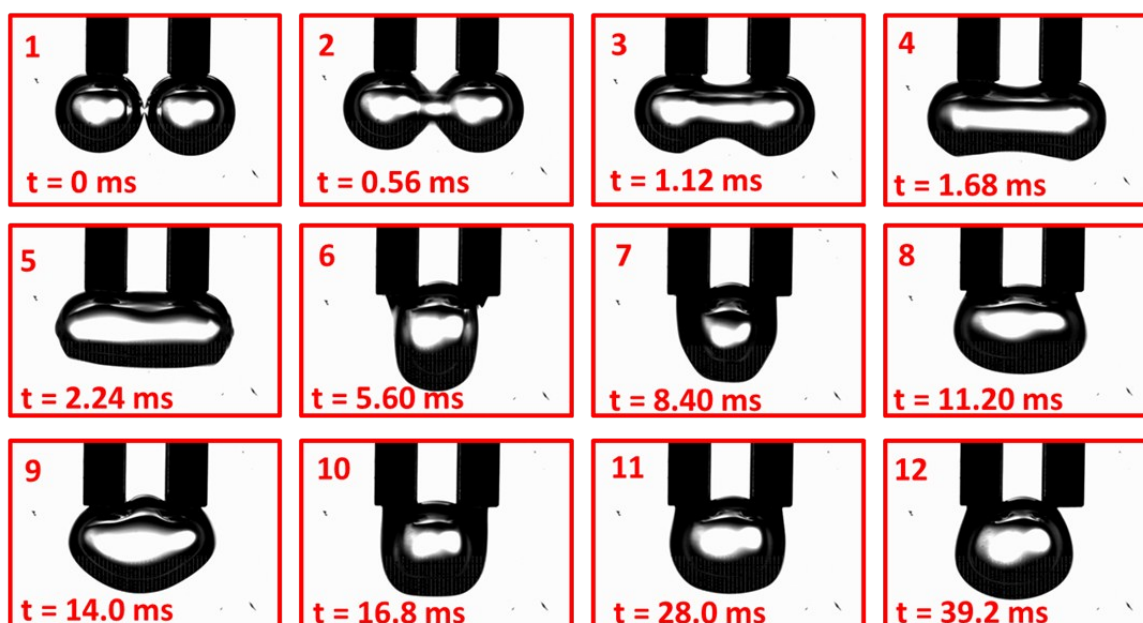


**Figure S1.** Interfacial tension profiles for (a) air bubbles or (b) *n*-dodecane droplets; aged over 10 min in 0.01% w/v aqueous dispersions of either 22 nm PGMA<sub>39</sub>-PBzMA<sub>60</sub> spheres or PGMA<sub>37</sub>-PHPMA<sub>60</sub>-PBzMA<sub>30</sub> worms of similar diameter without any stirring. Also shown are the interfacial tension data obtained for either an *n*-dodecane droplet or an air bubble immersed in water in the absence of any nanoparticles.

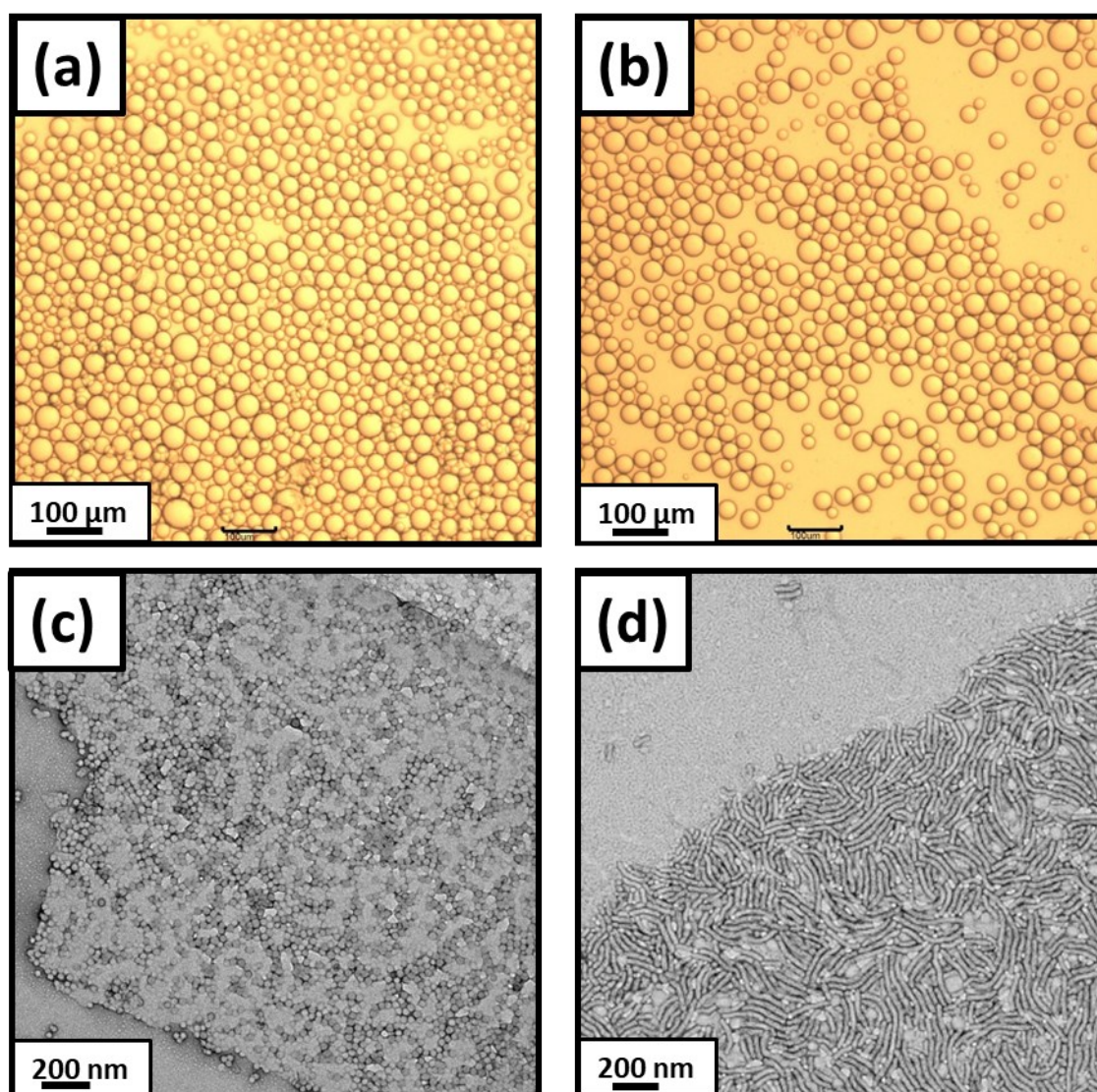
### (a) Spheres



### (b) Worms



**Figure S2.** Sequence of digital images recorded at various time intervals during the coalescence of two air bubbles prepared using a 0.01% w/v aqueous dispersion of either (a) 22 nm PGMA<sub>39</sub>-PBzMA<sub>60</sub> spheres or (b) PGMA<sub>37</sub>-PHPMA<sub>60</sub>-PBzMA<sub>30</sub> worms brought into close contact after no ageing. The outer diameter of each capillary is 1.05 mm



**Figure S3.** Optical microscopy and TEM images recorded for *n*-dodecane-in-water Pickering emulsions prepared using a 0.50% w/v aqueous dispersion of either PGMA<sub>39</sub>-PBzMA<sub>60</sub> spheres (a, c) or PGMA<sub>37</sub>-PHPMA<sub>60</sub>-PBzMA<sub>30</sub> worms (b, d) after high-shear homogenisation at 13 200 rpm for 2 min.