







the visible interface thickens and finally disappears after 5 hours. As with the density gradient used for the DMA experiments, we were not able to investigate the spatial variation of the resulting density gradient.

DMA has a refractive index of 1.438, which is higher than the 1.399 value of the silicone oils used for the suspension medium and the inner droplet phases. As a consequence of internal reflection within the liquid shell, the inner surface manifests itself







$$\vec{E}_{in} \approx E_{in,x} \hat{x} + E_{in,y} \hat{y} + E_{in,z} \hat{z} \quad (A2)$$

where

$$E_{in,x} \approx \frac{E_{0,x}}{1 + \frac{abc}{2} \frac{3_2}{3_1} \int_0^\infty}$$

eqn (A1) for the electrostatic energy for a dielectric sphere