

Liquid Crystals under Con nement in Submicrometer Capsules

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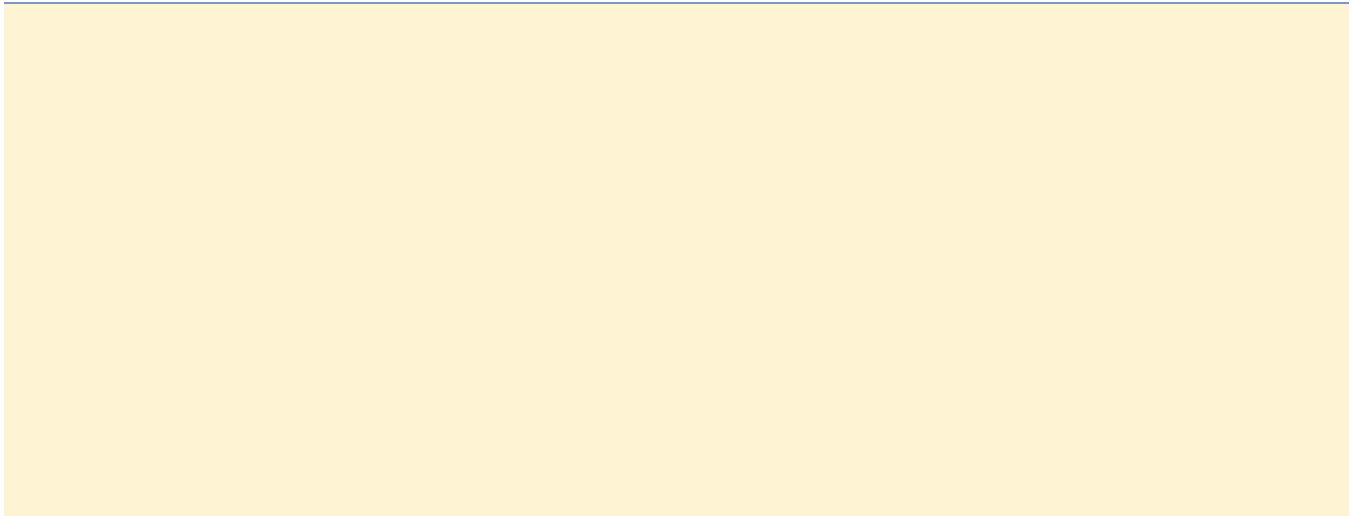




Figure 1.(a) SEM image (inset: TEM image) of the SLCs microcapsules with a diameter of 325

the microcapsule is able to increase the nematic ordering ¹¹ thus to increase the phase transition temperature. We can further predict that a stronger coament would be generated in

these fluorescence features, we reconstruct the size-dependent director structures (Figure 5Sh).

Because of the tangential alignment of SLCs molecules along the inner SiO₂ shell surface, the director configuration depends on the competition between the surface anchoring energy and the bulk elasticity of SLCs. Taking account of the bulk elastic energy scaling as $\frac{1}{2}KR$ and the surface anchoring energy scaling as $\frac{1}{2}WR^2$, the director of SLCs relies on the radius of LC droplet formed inside the SiO₂ shell, R , where K is

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