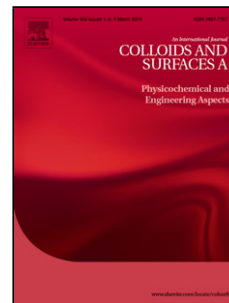


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Hysteresis of Contact Angle of Sessile Droplets on Deformable Substrates: Influence of Disjoining Pressure

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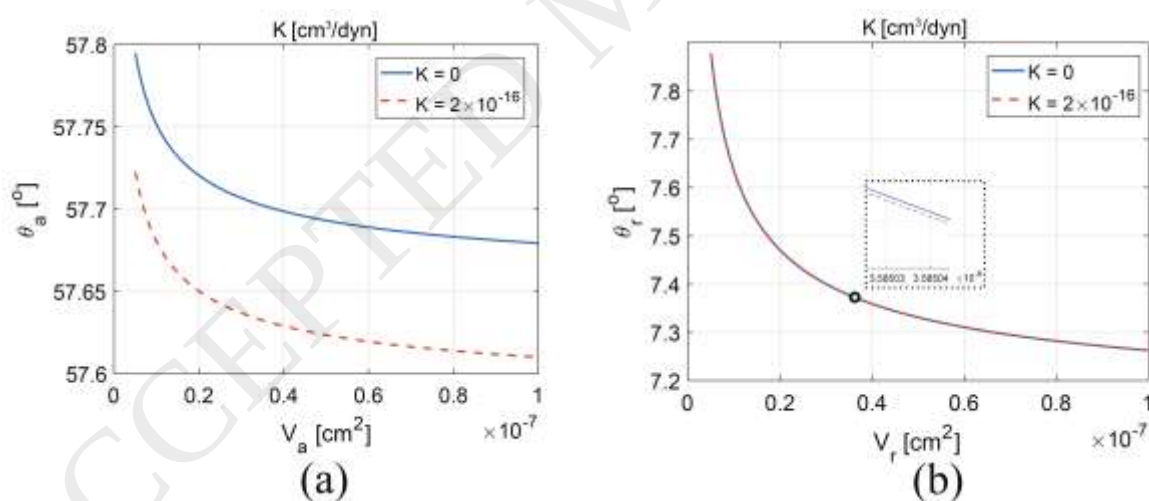
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Graphical Abstract:

Variation of advancing (a) and receding (b) contact angles with volume of droplet for non-deformable (i.e. $K = 0 \text{ cm}^3/\text{dyn}$) and deformable (i.e. $K = 2 \times 10^{-16} \text{ cm}^3/\text{dyn}$) substrates.



Abstract

Liquid droplet placed on a deformable / soft substrate causes the substrate to deform. Combined action of capillary pressure and surface forces, which act in the vicinity of the apparent three-phase contact line and substrate's elasticity determine both the liquid shape and the substrate

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