Form of a free liquid surface, which is in equilibrium with its α-film

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The authors consider an approach to a consistent the description of wetting during the spreading of droplet along a solid surface. Arising problems in the description of motion can be solved considering the additional chemical potential (wedging pressure) for the liquid particles in thin layers of liquid near the contact line.

Keywords: partially moistening liquid, superficial tension, thin film, near-surface pressure, three-phase contact, angle of liquids edge.

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