



Impact of electrolytes and surfactants on droplet spreading

Problem

Understanding the spreading of liquid drops on planar substrates is important in various applications (spraying, agriculture, painting and printing ...) in which the dynamics of moving contact lines plays a major role. It involves the surface energies of all interfaces and hence the wettability of the materials. **Surprisingly, Droplets spreading is observed on hydrophobic surfaces** when both salt and surfactant are present in the solution.

The project consists of :

- Measuring experimentally the spreading properties at different concentration
- With different surfactants and salt concentration.
- Studying the role of the wettability of the substrates
- Quantify the dynamics of moving contact line by image analysis
- Understand the role of NaCl on surfactant-surface interactions in spreading?

Place : Soft matter group, WZI_ Institute of Physics

-UvA

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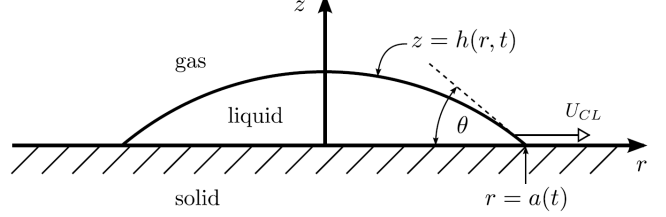
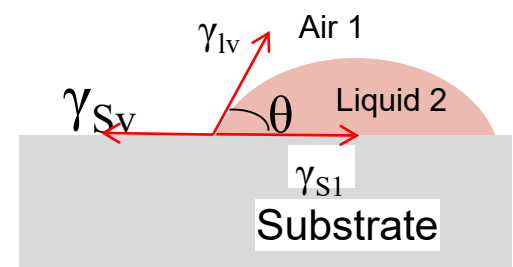
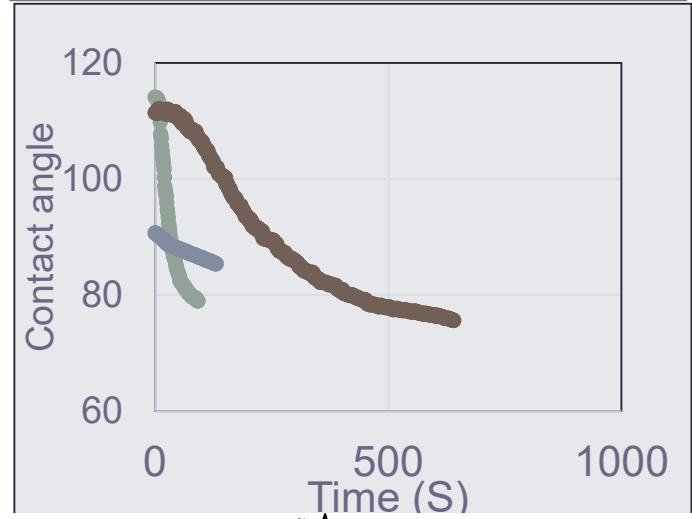
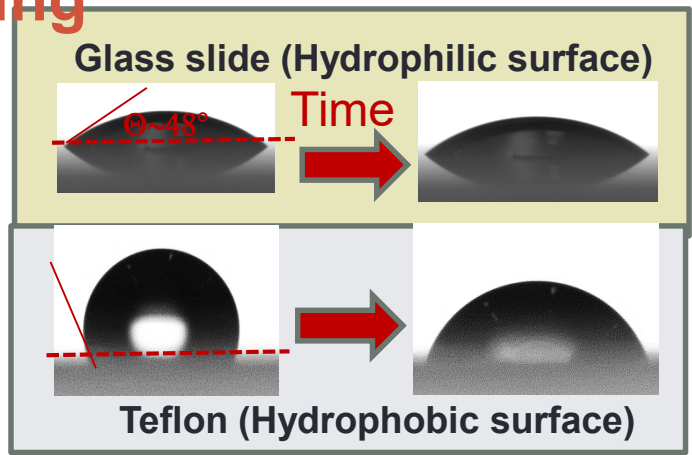


Fig. 2. A liquid droplet spreading on a smooth, planar substrate.