

# Keynote: Towards controlling drop motion

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Wetting phenomena surround us every day and are relevant for technological applications such as printing, painting, coating, heat transfer, flotation, bringing out herbicides and insecticides. Making surfaces with defined wetting properties is one of the big engineering challenges. In the presentation, I will focus on liquid repellent surfaces. Liquid repellency includes two aspects: High receding contact angles and low contact angle hysteresis. In the first case, sessile drops show a low adhesion in normal direction; they can easily be taken off vertically. Super liquid-repellent surface fall in this category (Fig. 1). In the second case, drops have low lateral adhesion and slide off surfaces, which are only slightly tilted. Some polymer brushes, lubricant-infused polymer brushes and lubricant-infused porous surfaces belong to this category. The different types of liquid repellency will be discussed and modern trends are highlighted.

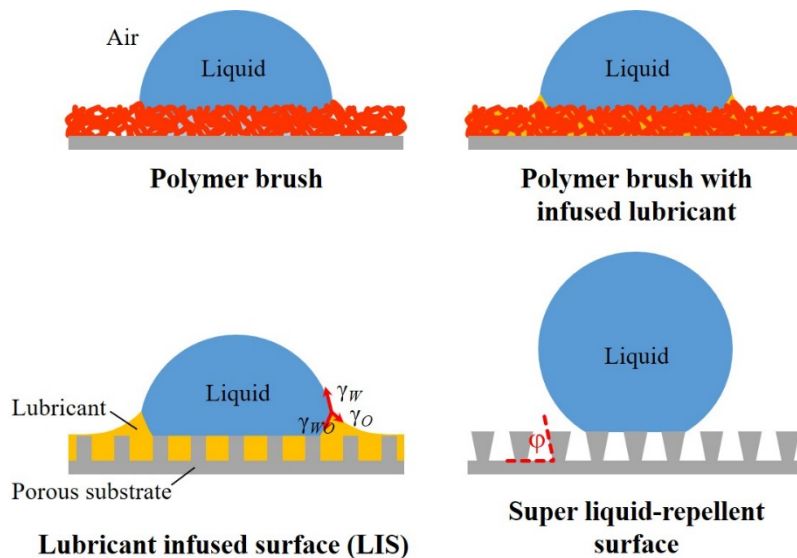


Fig. 1: Different types of liquid repellent surfaces.