**Dynamic Amphiphobicity with Hexadecane and Water Droplets**

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The normal impact of water and hexadecane liquid drops onto solid and dry surfaces, with different wettabilities, has been studied experimentally using high-speed camera. The wetting behavior of aluminum foils, before and after the deposition of organic-inorganic hybrid coatings, infused hybrid coatings, grafting FAS and grafting fatty acid treatments, has been analyzed and the results compared. Drop impact velocities in the 0-4.1 m/s range have been used. Quasi-static contact angle, roughness, SEM analysis and drop impact test allowed relating the dynamic behavior of the surfaces with their wettability characteristics. The high-speed outcomes of water and hexadecane impacting droplets behavior on all the different kind of surfaces and the temporal evolution of the contact radius of droplets upon impact and retraction are shown. With water, rebound is mostly observed on SHS surfaces. Curiously, in the case of water drop impacting on raw aluminum foils, at \( \text{We} \approx 21 \), a deposition occurs with the generation of a secondary drop. In general, up to a speed of 1.5 m/s with hexadecane, deposition always occurs for all surface types, except sometimes in the case of FAS surface. At higher velocity, prompt splash and receding breakup are mainly present. Rebound was never observed with hexadecane even when receding contact angle reaches 110-120°.