



WETTING and NON-WETTING: from fundamentals to applications

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Abstract:

Wetting of solid surfaces is a ubiquitous process. Examples include daily phenomena like laundry, cooking, and lubrication; biological phenomena such as cell adhesion or lubrication of the eyes; and industrial processes, such as oil recovery. The lecture will start with a presentation of the fundamentals, mainly surface tension and contact angle. Then, interesting and surprising effects of wetting will be described. Finally, non-wetting ("The Lotus effect") will be presented, with emphasis on designing not-wettable surfaces.



Biography: Abraham (Avi) Marmur is a professor emeritus of Technion – Israel institute of Technology. He received his Ph.D. degree at Technion in 1974, then went for a post-doc period and returned to Technion faculty in 1976

Publications:

1. Wetting on hydrophobic rough surfaces: to be heterogeneous or not to be?
2. The lotus effect: super hydrophobicity and metastability
3. Soft contact: measurement and interpretation of contact angles
4. Contact angle measurement on rough surfaces

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