



UNIVERSIDAD
DE GRANADA

I Jornada de (d)Efecto Pasillo

Facultad de Ciencias, 15 junio 2018 #DefectoPasillo



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II Plan de Promoción de la Investigación

Laboratory of Surface and Interface Physics

Department of Applied Physics

Applied Physics

Outline

Since 1990.... Biomimetic bone-like coatings, colloidal assembly, waterproofing, road paving, adhesives, paints, imbibition, biomaterials

Disciplines: Surface physics and material engineering

Concepts: Durable functional coatings with low(high)-adhesion properties for real-life applications. Wetting and drop dynamics.

Deliverables: Release (demoulding) coatings, anti-icing coatings, anti-biofouling surfaces...



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Wetting, adhesion, surface tailoring, roughness, durability



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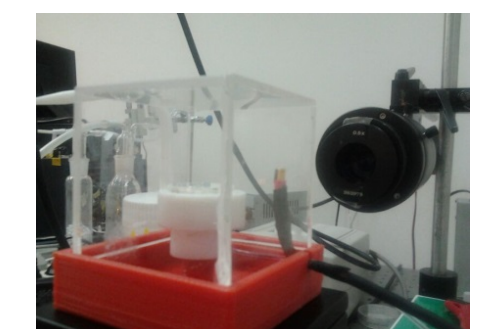
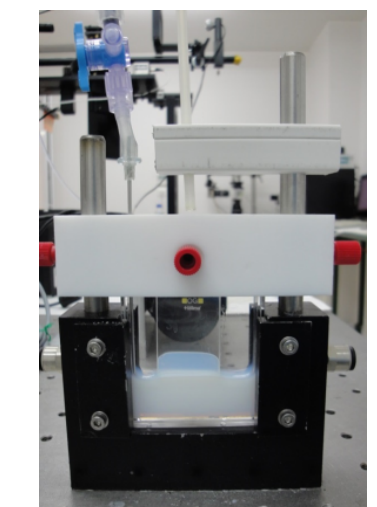
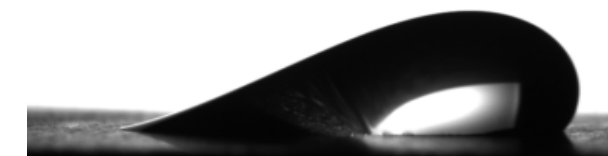
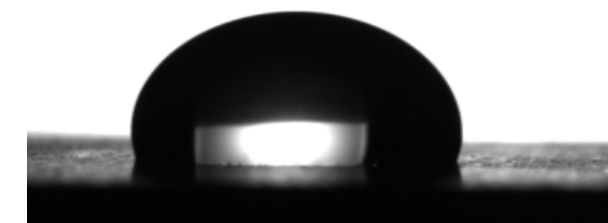
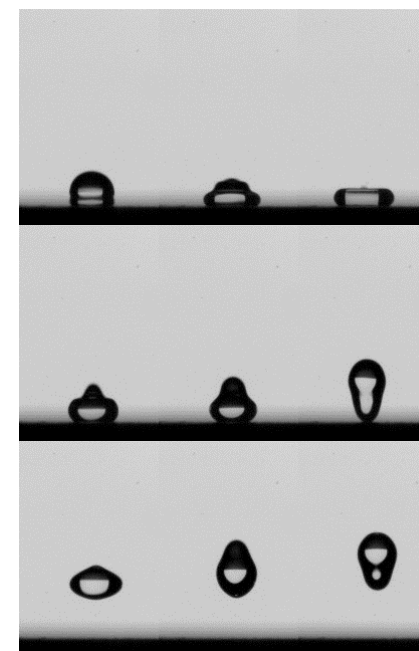


Expertise

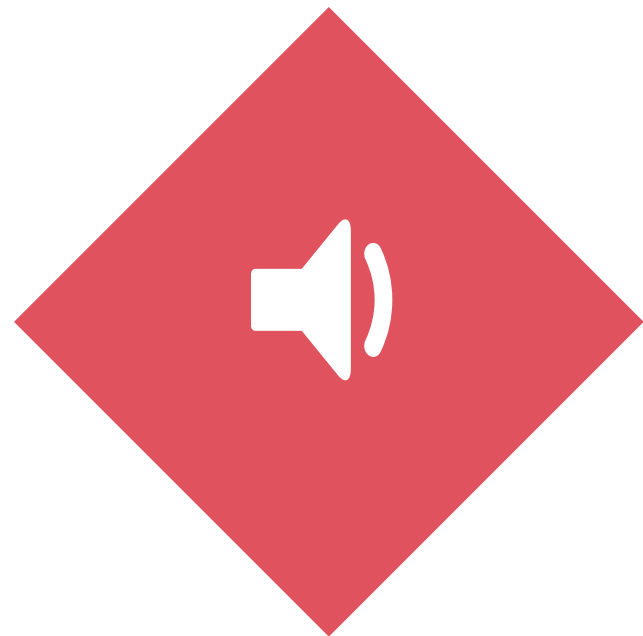
Adhesion and wettability.

Facilities and instrumentation

- Wettability measurements
- Adhesion (pull-off) tests
- Dip-coating, spin-coating
- Surface topography
- Wear/abrasion tests, UV-Ozone
- Prototyping of scientific instrumentation



Laboratory of Surface and Interface Physics



We need...

- Physical vapor deposition (PVD) coatings
- Infrared thermography (IRT) for freezing drops (~mm)
- Water condensation measurement in/on small surfaces (Quartz Crystal Microbalance?)
- Groups specialized on surface coatings: low surface energy, durability, scale-up, aeronautics...

for...

NonSticky+

DISEÑO DE RECUBRIMIENTOS ANTI-ADHERENTES MEJORADOS P12-FQM-1443



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Repel Surf4Xtrm

DESIGN AND PREPARATION OF LIQUID-REPELLENT SURFACES OPERATING IN EXTREME CONDITIONS MAT2014-60615-R



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LA MetSurf

FABRICATION OF LONG-LASTING LOW-ADHESION METAL-BASED SURFACES MAT2017-82182-R



Current partners

- TECNIMACOR, CETURSA, UCO, UYork



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