



HAL
open science

The capillary bridge technique to study superhydrophobic surfaces

Céline Cohen, Yann Bouret, Xavier Noblin

► **To cite this version:**

Céline Cohen, Yann Bouret, Xavier Noblin. The capillary bridge technique to study superhydrophobic surfaces. Complex Days, Académie Systèmes Complexes, Mar 2019, Nice, France. hal-03862789

HAL Id: hal-03862789

<https://hal.science/hal-03862789>

Submitted on 21 Nov 2022

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

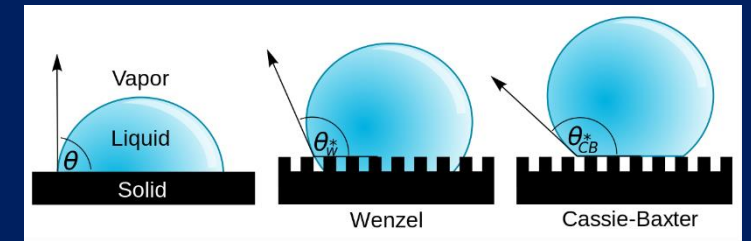


Distributed under a Creative Commons Attribution 4.0 International License

The capillary bridge technique to study superhydrophobic surfaces.

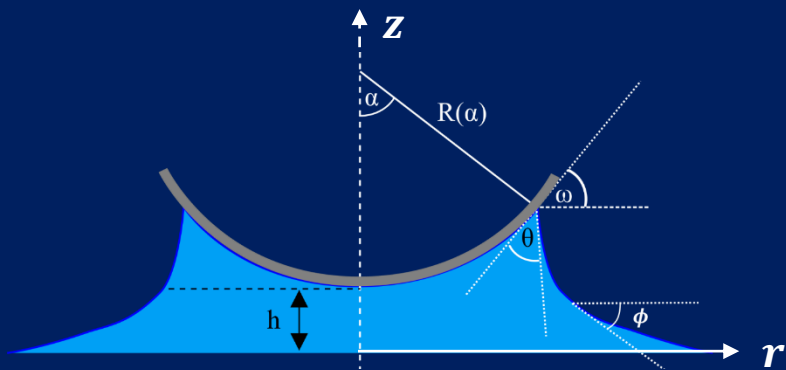
Céline Cohen, Yann Bouret, Xavier Noblin.

Institut de Physique de Nice.

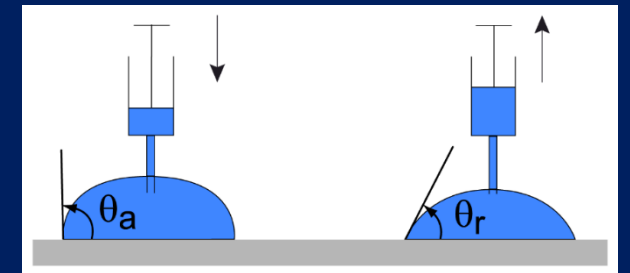
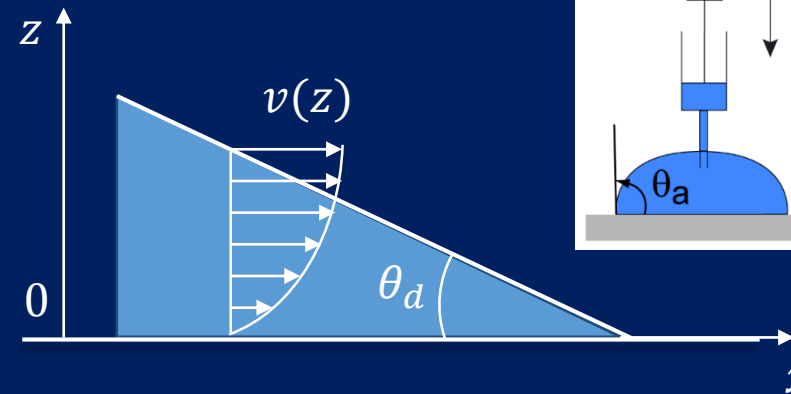


Superhydrophobic surfaces: multiscale roughness. Metastable state.

Contact line dynamics problem.



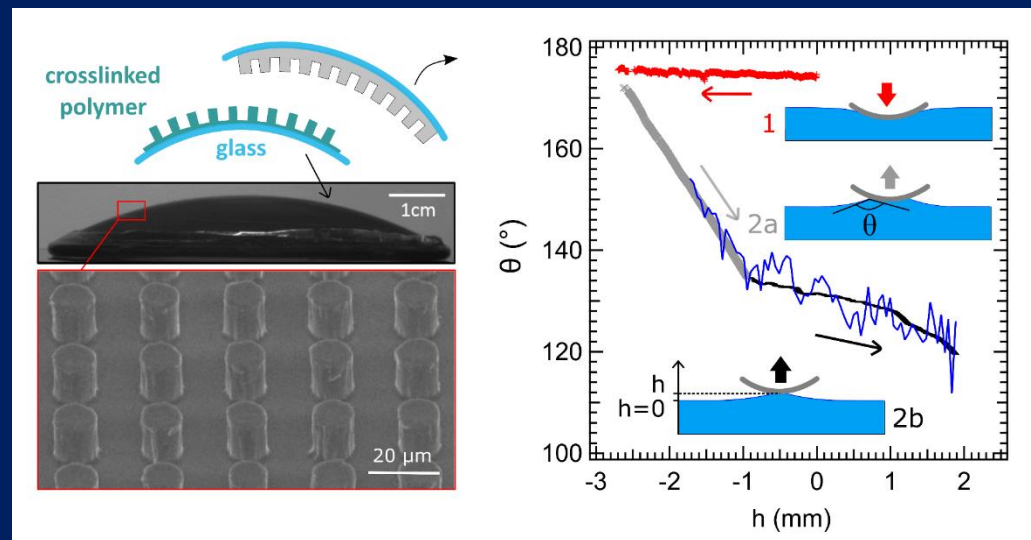
Capillary bridge setup.



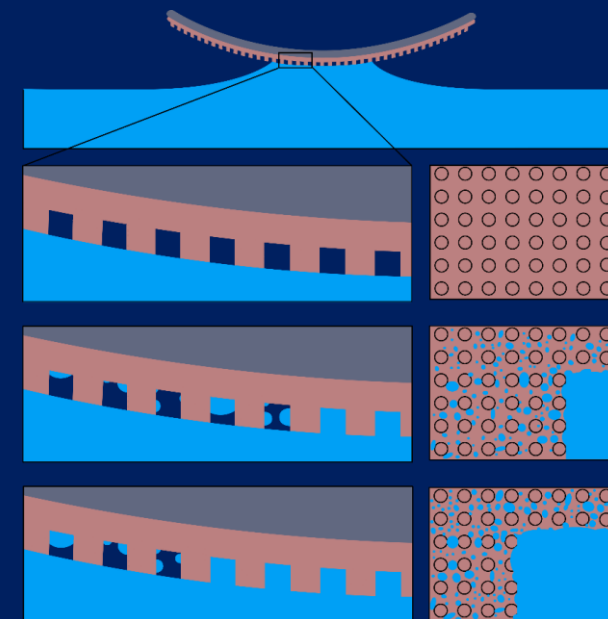
Advancing

receding

Fabrication of curved superhydrophobic surfaces



Large contact area :
condensation effect
At room temperature
and humidity.



- Contact angle hysteresis
- Dynamical contact angle

