

Homework 4a and 4b

Homework 4a

Read, make a 200 word Abstract and propose a method to produce the surface indicated in the paper

Transformation of a Simple Plastic into a

Superhydrophobic Surface H. Yildirim Erbil^{1,*}, A. Levent

Demirel^{2,*}, Yonca Avci¹, Olcay Mert¹

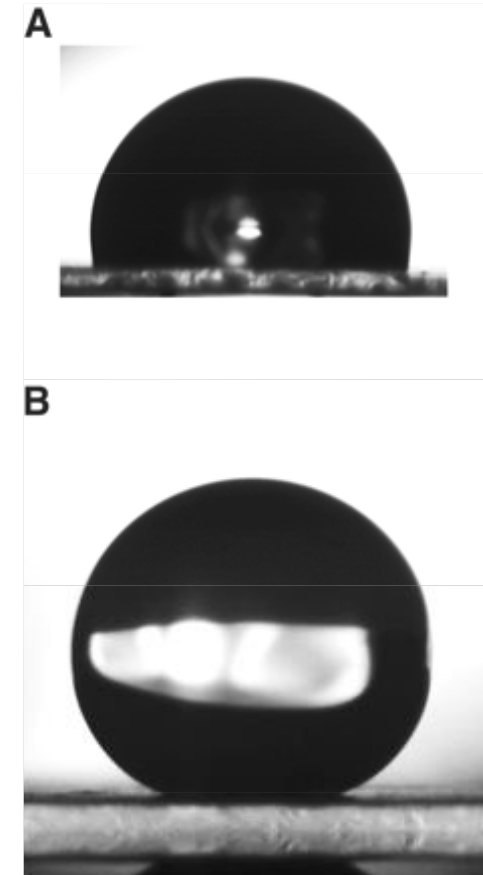
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Abstract

Superhydrophobic surfaces are generally made by controlling the surface chemistry and surface roughness of various expensive materials, which are then applied by means of complex time-consuming processes. We describe a simple and inexpensive method for forming a superhydrophobic coating using polypropylene (a simple polymer) and a suitable selection of solvents and temperature to control the surface roughness. The resulting gel-like porous coating has a water contact angle of 160°. The method can be applied to a variety of surfaces as long as the solvent mixture does not dissolve the underlying material.



Homework 4b

Watch the video and make an infographic about the topic

Langmuir-Blodgett Trough Tutorial - Part I: Introduction

<https://www.youtube.com/watch?v=9Sm8MvIYINg>

Langmuir-Blodgett Trough Tutorial - Part II: Cleaning and preparation

<https://www.youtube.com/watch?v=XEjdtSkylU>

Langmuir-Blodgett Trough Tutorial - Part III: Monolayer formation and taking an isotherm

<https://www.youtube.com/watch?v=orV-xtM4lxl>

Langmuir-Blodgett Trough Tutorial - Part IV: Deposition of a monolayer

https://www.youtube.com/watch?v=NQ6H3ys6-_o