Robust superhydrophobic surfaces from small diffusion flame treatment of hydrophobic polymers

Ilker S. Bayer,*a,b Alexander J. Davisb and Abhijit Biswasc

a Nanophysics, Istituto Italiano di Tecnologia, Genova, 16163, Italy; E-mail: ilker.bayer@iit.it
b Department of Mechanical and Aerospace Engineering, University of Virginia, Charlottesville, VA 22904, USA.
c Center for Nano Science and Technology, Department of Electrical Engineering, University of Notre Dame, Notre Dame, IN 46556, USA

SUPORTING INFORMATION

Figure S1: Photograph of a perfluoroacrylic coating on class slide treated with a small diffusion flame. After flame deposition, the surface was washed with a water stream (2 m/s) for a few minutes in order to remove loosely attached carbonaceous layers. The white ellipse indicates the region that was abraded by a material having Shore A hardness of 75. No loss of superhydrophobicity was seen.

Please see the video showing water droplets bouncing off the surface of this film including the abraded region.