Droplet-Driven Transports on Superhydrophobic-patterned Surface Microfluidics

Siyuan Xing, Ryan S. Harake, and Tingrui Pan*
Micro-Nano Innovations (MiNI) Laboratory, Department of Biomedical Engineering,
University of California, Davis, USA

Figure S1. Illustration of the two-step procedure of laser micromachining to create superhydrophobic PDMS-based micropatterns: a) spin- or cast-coating of a thin layer of PDMS pre-polymer; b) laser engraving of nanofibrous structures on PDMS matrix; and c) laser ablation of the PDMS layer for microfluidic network formation.

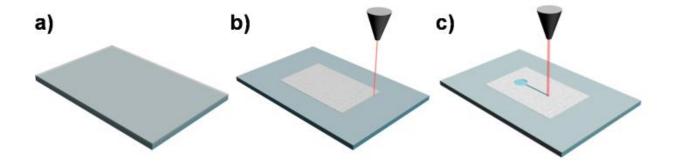


Figure S2. Summary of the contact angle (θc) measurements over different combined configurations of laser powers and speeds for optimized superhydrophobicity (scale bar is 2.5 μ m).

