Electronic Supplementary Material (ESI) for Lab on a Chip.

Supplementary materials

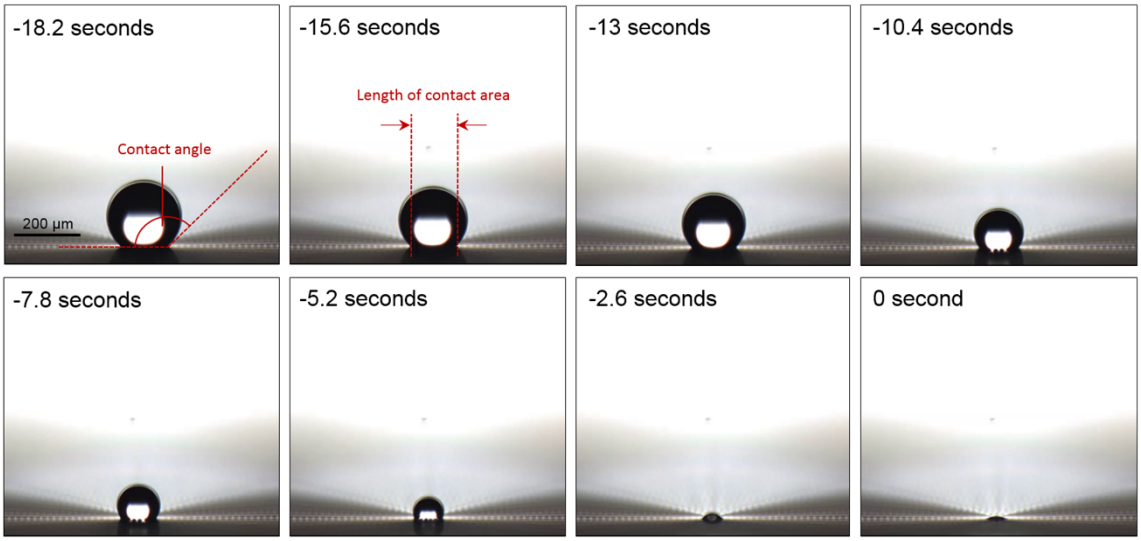

Figure 1: Micrograph of a droplet (side view) as it dries on superhydrophobic bulls-eye substrate. Time scale is chosen such that "0 seconds" represents moment at which droplet evaporation is complete.

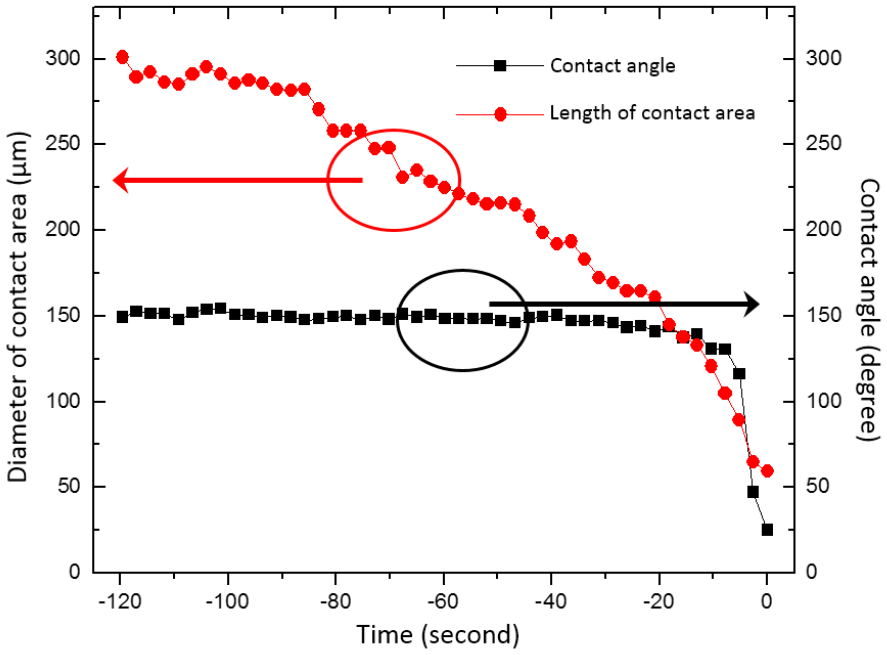

Figure 2: Droplet contact angle and diameter of contact area versus time during drying process. Time scale is chosen such that "0 seconds" represents moment at which droplet evaporation is complete.

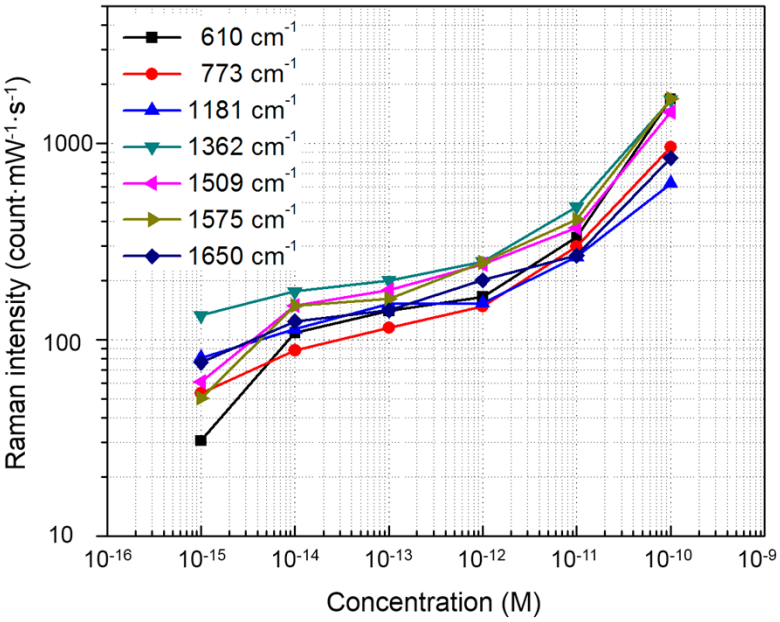

Figure 3: Intensities of different SERS lines vs R6G concentration.

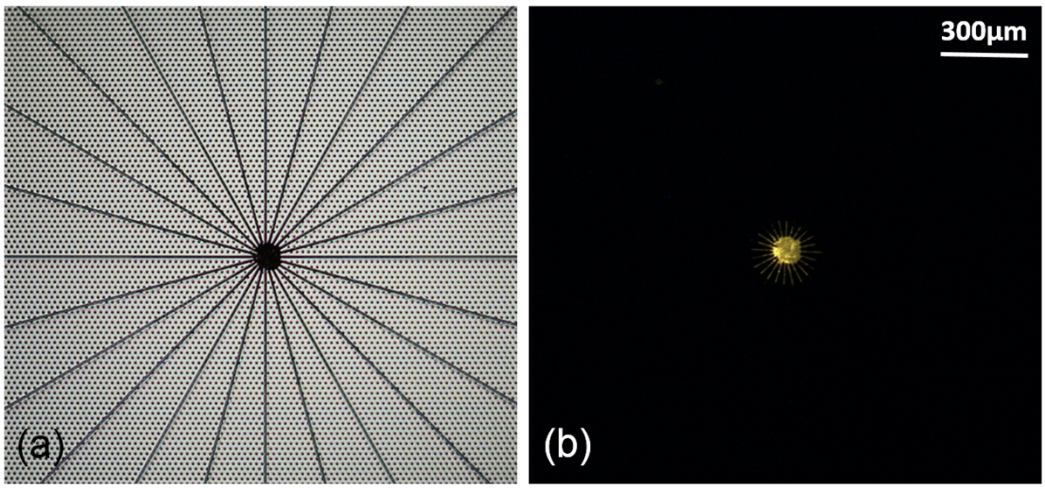

Figure 4: (a). Bright-field and (b) fluorescence microscopy images of superhydrophobic bulls-eye after gold colloid and R6G droplets have dried on it.

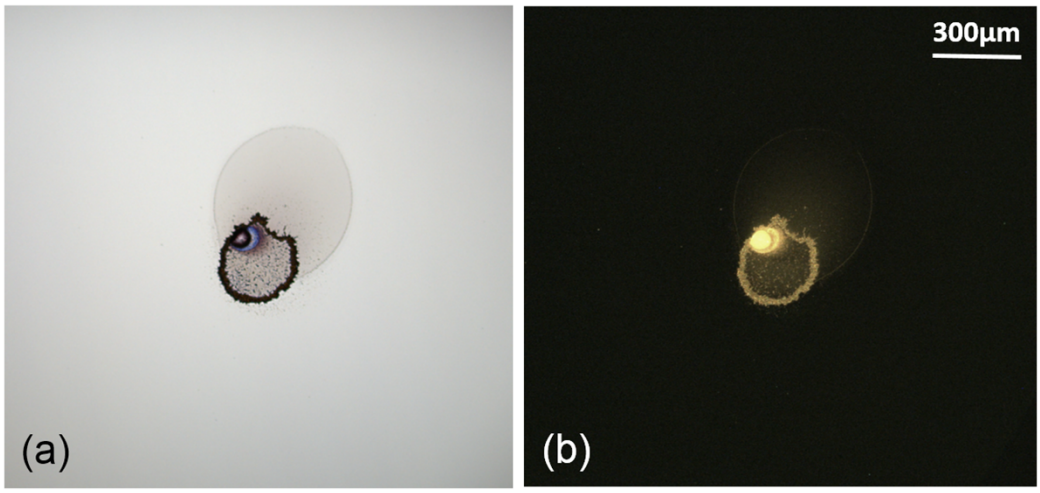

Figure 5: (a). Bright-field and (b) fluorescence microscopy images of flat Si wafer (with SAM for hydrophobicity) after gold colloid and R6G droplets have dried on it

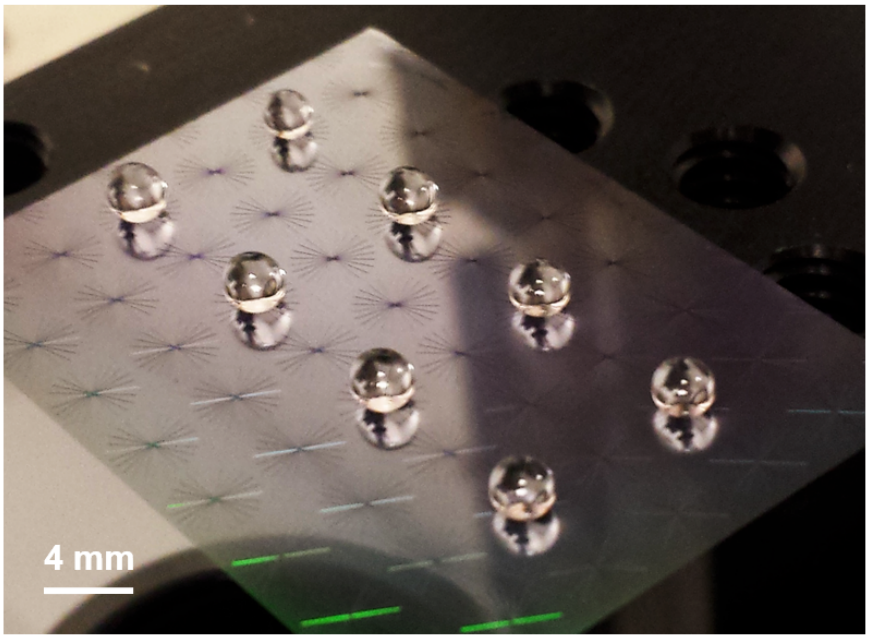

Figure 6: Array of droplets produced by hand-pipetting onto an array of bulls-eye devices.

Supplementary Materials Movie Captions

Movie 1: Movie showing the drying of a droplet on a bulls-eye substrate. During first part of movie, a playback speed of 20.8 × real time is used. During second part of movie, playback speed is reduced to 2.6 × real time.

Movie 2: Droplet is placed on superhydrophobic bulls-eye substrate that is sitting on a mechanical tilt stage. From movie, it can be seen that droplet remains pinned to bulls-eye centre as substrate is tilted up to 2.4°.

Movie 3: Droplet is placed on regular superhydrophobic substrate (pillars and SAM, but no fins) that is sitting on mechanical tilt stage. From movie, it can be seen that even with a small tilting angle of 0.98°, droplet moves on surface.