

Supporting information

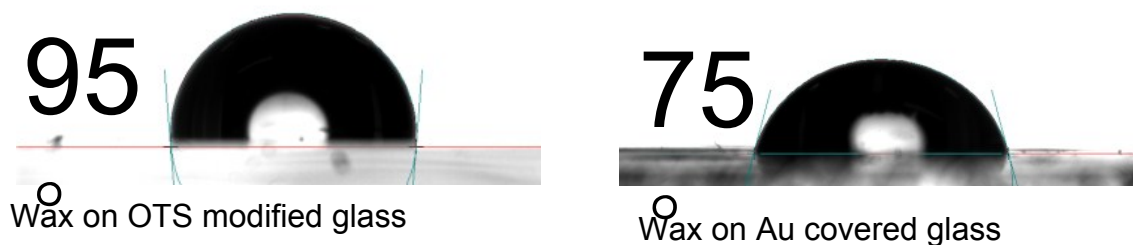
Low Voltage Driven Surface Micro-flow by Joule Heating

H. Wang,^a S. G. Wang,^a J. J. Kan,^a X. Y. Deng,^a W. C. Wang,^{a} M. H. Wu,^{b*} Y. Lei^{ac*}*

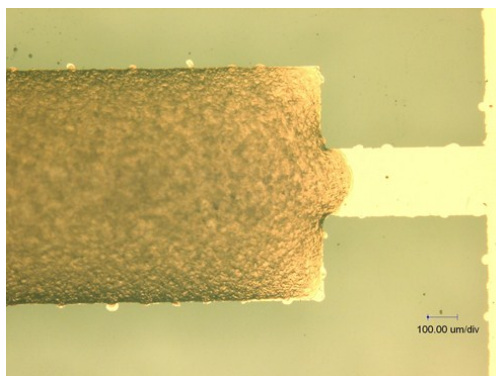
^a Institute of Nanochemistry and Nanobiology, School of Environmental and Chemical Engineering, Shanghai University, 99 Shangda Road, Shanghai, 200444, P. R. China.

^b Shanghai Applied Radiation Institute, Shanghai University, 200444, P. R. China

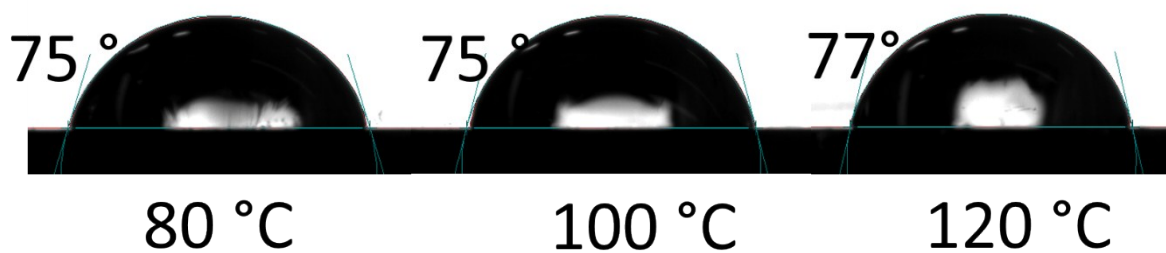
^c Institut für Physik & IMN MacroNano (ZIK), Technische Universität Ilmenau, Ilmenau, 98693, Germany



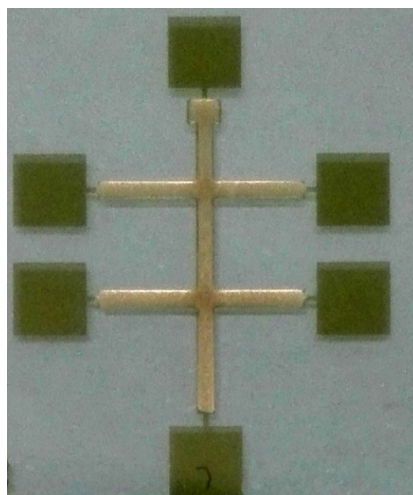
Supporting information S1 Contact angle of molten wax on OTS modified glass and Au covered glass. The contact angles were measured at room temperature by cooling down molten wax droplets on the two surfaces.



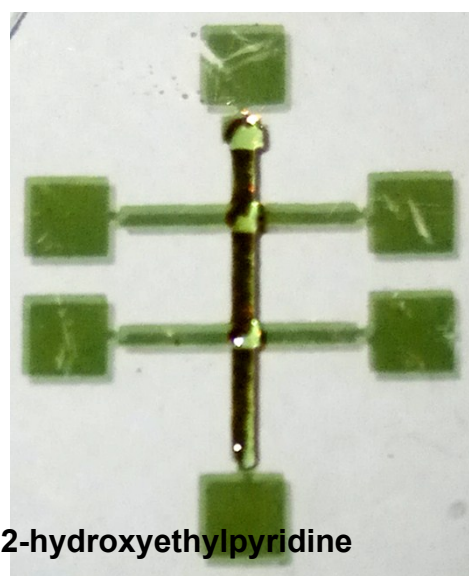
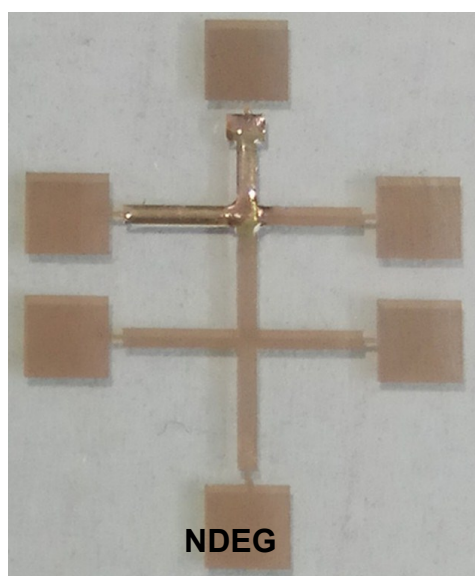
Supporting Information S2 Photography of wax on a 700 μm Au wire connected with a 200 μm Au dash. No propagation of wax liquid was observed when the stripe width below 200 μm .



Supporting information S3 Contact angle of molten wax on Au covered glass at 80, 100 and 120 °C, respectively.



Supporting Information S4 Photography of wax wetting the Au patterned heated by a hot plate. The sample was uniformly heated up to 80 °C and the liquid flows over all the stripes.



Supporting Information S5 Selective wetting of molten NDEG and 2-hydroxyethylpyridine on desired channels.