

Supplementary Information

Soft-Lithographic Patterning of Room Temperature-Sintering Ag Nanoparticles on Foil

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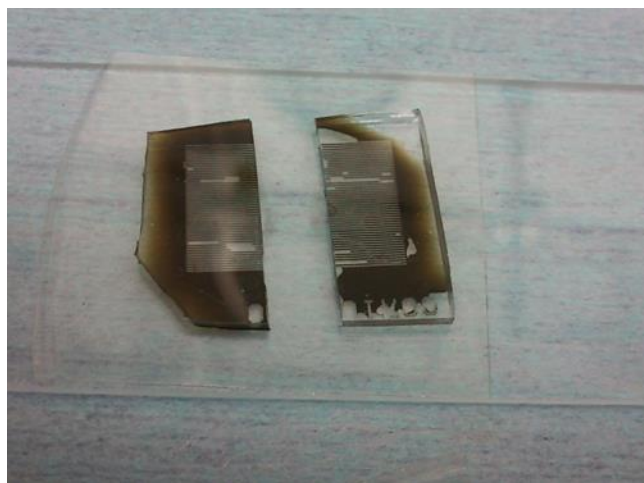


Fig.S1 Photograph showing the MIMIC process with a patterned PDMS stamp on a PET foil. The Ag-PAA NP ink clearly filled the channels and exited the channel on the other side of the channel opening at which the ink was introduced.

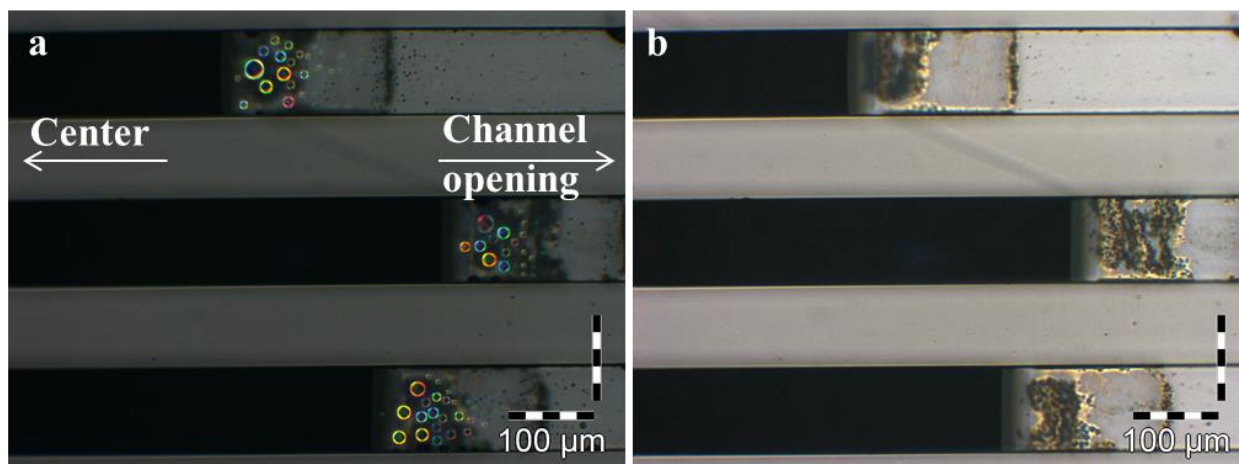


Fig.S2 Microscopy images in reflection mode showing the moving front at nearly the identical moment in a MIMIC formed channel upon solvent evaporation in two different focus planes (a, b). Ag-PAA NP ink is dragged upon solvent evaporation from the channel openings towards the center of the channel.

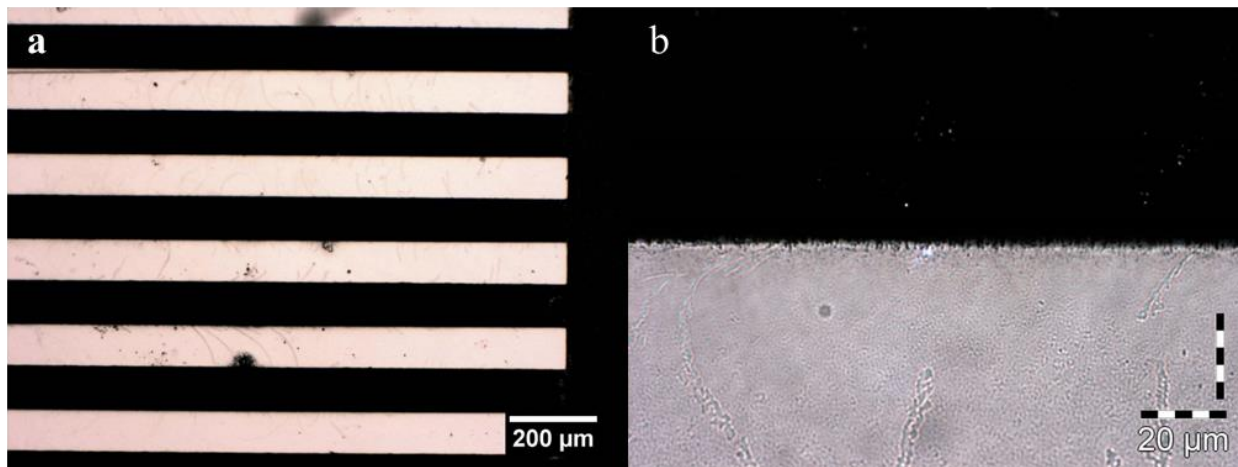


Fig.S3 Transmission microscopy images of (a, b) MIMIC-patterned Ag wires from Ag-PAA NPs dispersed in MeOH. (b) magnified image of (a) showing the line edge roughness of the patterned wire.

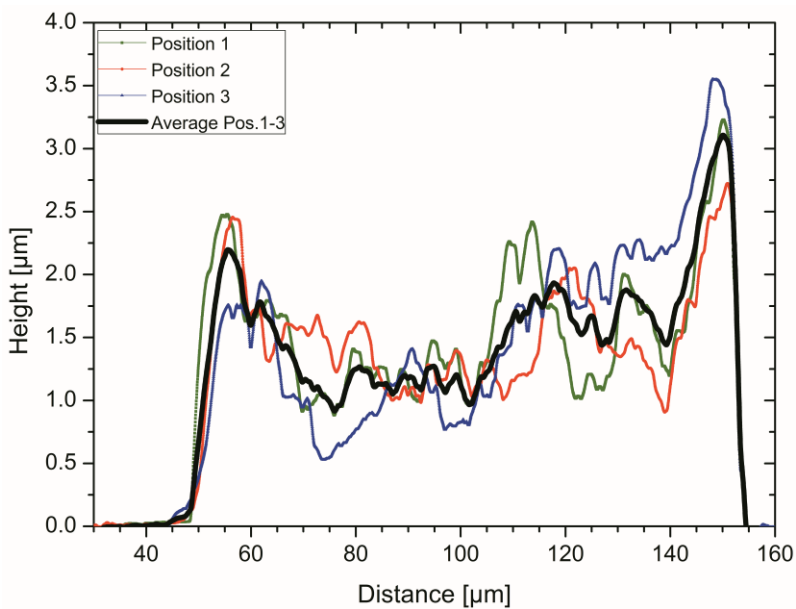


Fig S4 Cross-sectional profiles at several positions of a sintered, MIMIC-patterned Ag wire from Ag-PAA NPs dispersed in MeOH and their average.

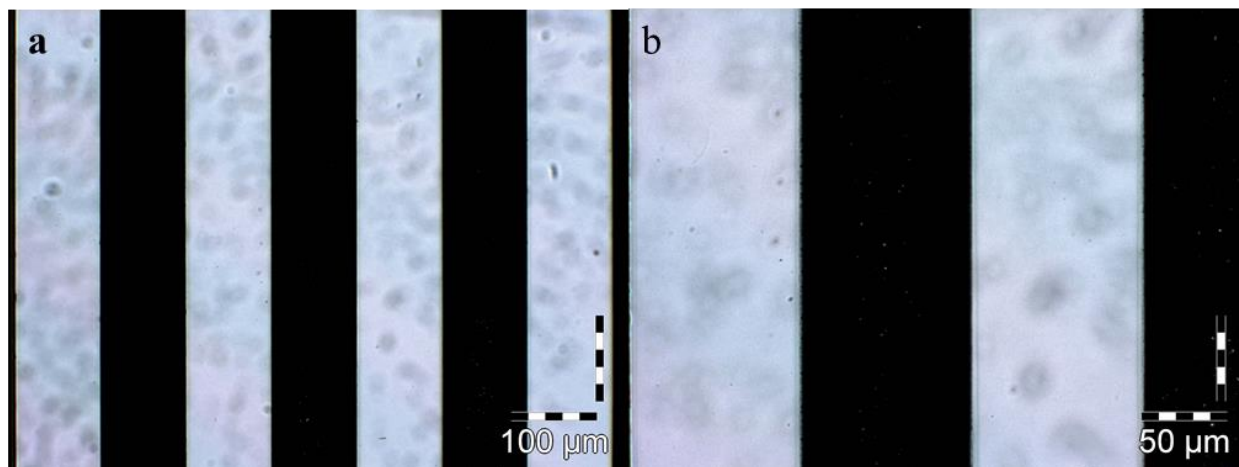


Fig.S5 Transmission microscopy images of (a, b) sintered Ag wires formed in SU8 channels on PET foil from Ag-PAA NPs dispersed in water. (b) magnified image of (a).

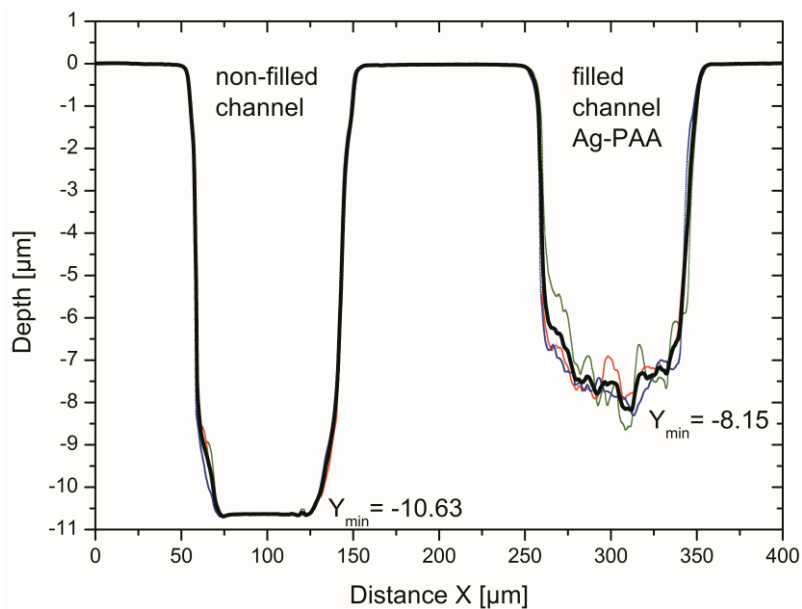


Fig S6 Cross-sectional profiles at three positions of a sintered Ag wire and their average in black for a non-filled and filled SU8 microchannel.