



A Versatile Microplasma-based Patterning Technology for Large-Scale, High Throughput Nanomanufacturing

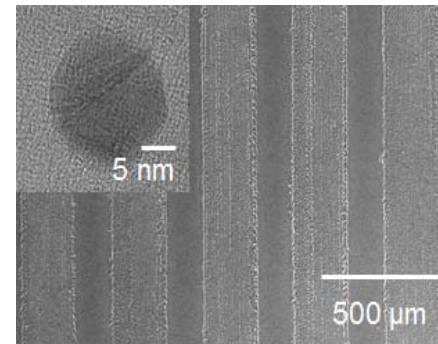
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Goal: To develop a direct-write alternative to 2D printing and conventional subtractive photolithography/electron beam lithography for polymer micro and nanosystems.

Atmospheric-pressure microplasma direct printing system integrated with micro/nanoscale mask and electrode lens

Initial results with micron-scale printing



SEM of an array of lines fabricated by exposing a AgNO_3/PVA film to the scanning microplasma. Inset: TEM image of a Ag nanoparticle that makes up the lines.

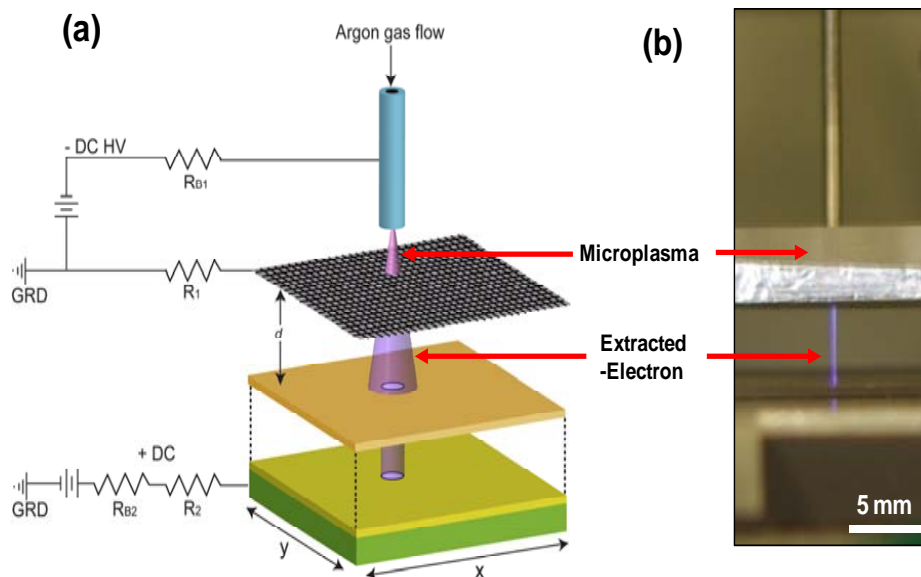
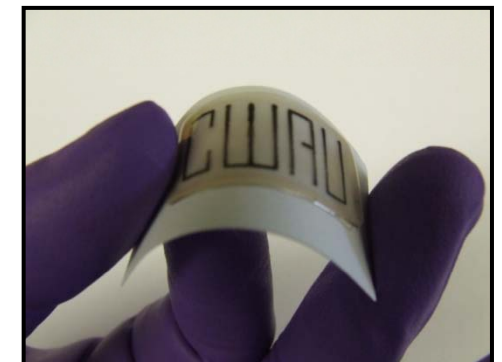


Photo of microplasma fabricated metal structure on LCP substrate



Funded by NSF SNM Program: Award # 1246715