

Supporting information:

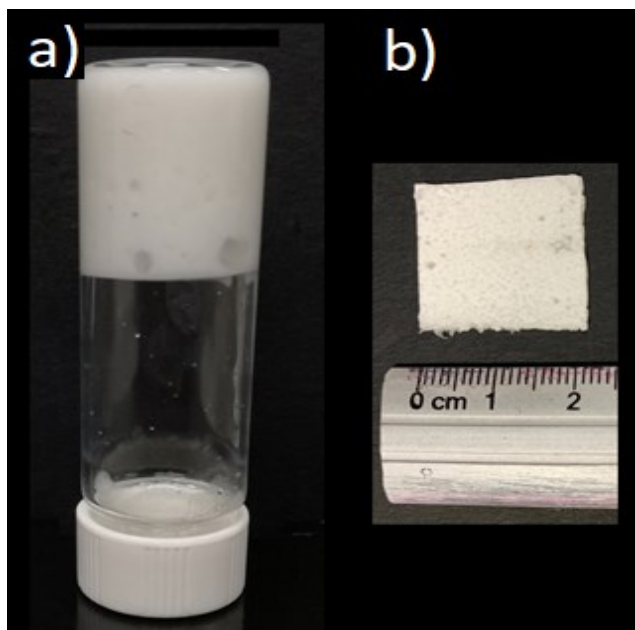


Figure S1. Photographs of a) water-in-PDMS HIPE and b) polyHIPE film.

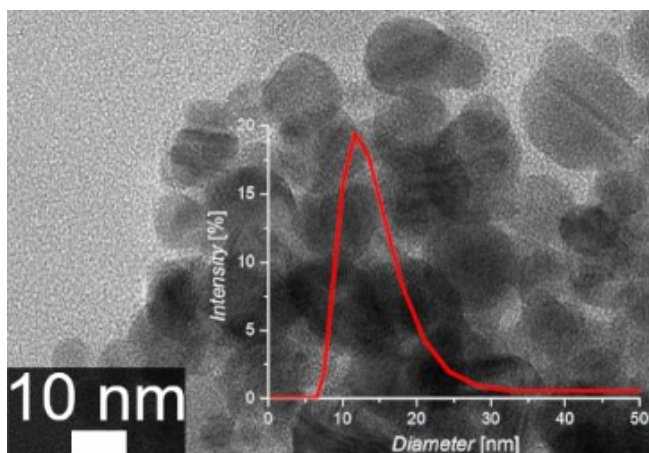


Figure S2. TEM micrograph of Ag-Nps, size distribution from Dynamic Light Scattering (DLS) analysis. (Red curve).

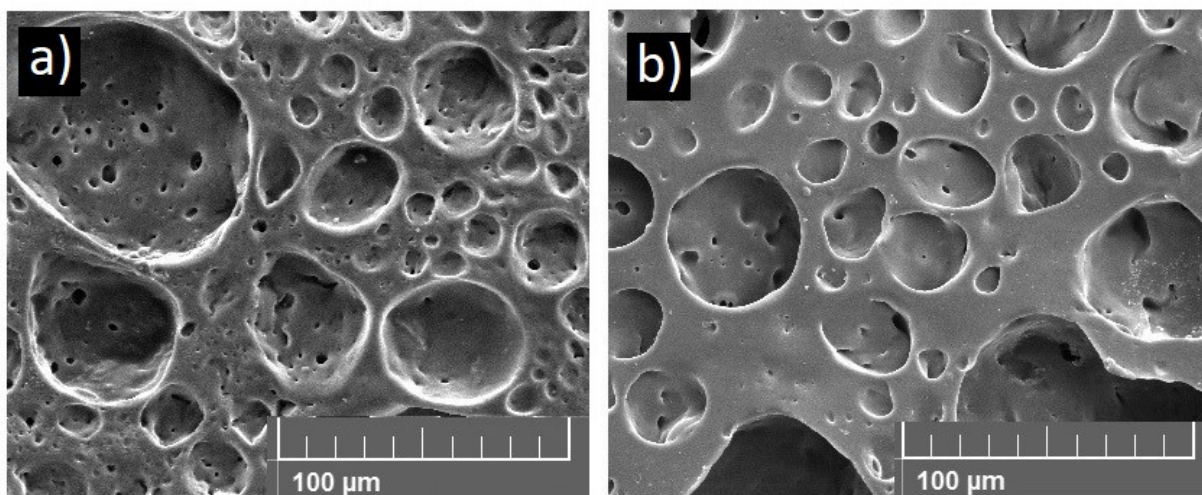


Figure S3. FESEM micrographs of a) polyHIPE@0 and b) polyHIPE@4

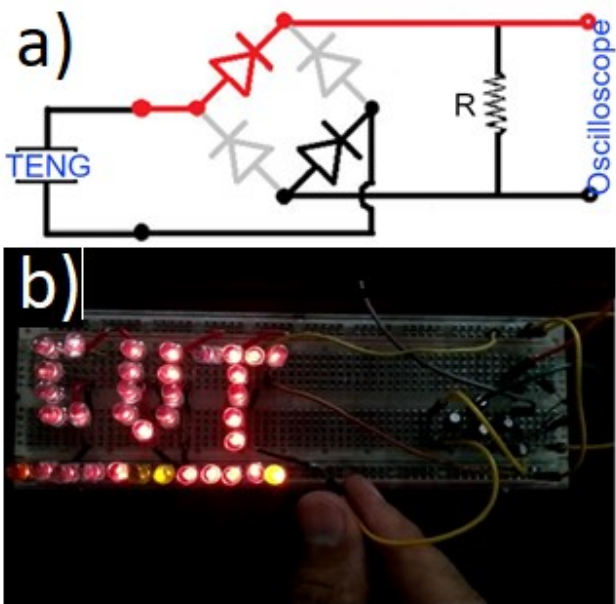


Figure S4. a) Circuit used to measure the output current, where a resistance of $2.7\text{ M}\Omega$ was used connected in parallel to a diode bridge that rectifies the signal. b) digital photographs of red LEDs lit by the polyHIPE@20-TENG.