

Electronic Supplementary Material

Uniform, Highly Conductive, and Patterned Transparent Films of a Percolating Silver Nanowire Network on Rigid and Flexible Substrates Using a Dry Transfer Technique

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Supporting information to DOI 10.1007/s12274-010-0017-5

Figure S-1 shows the angular dependence of the nanowire film transmittance. The transmittance of an Ag nanowire film was measured at different angles of incidence. As shown in Fig. S-1, the transmittance at $\lambda = 550$ nm changes by $\sim 10\%$ when the angle of incidence is changed from 0° to 60° with respect to the sample normal.

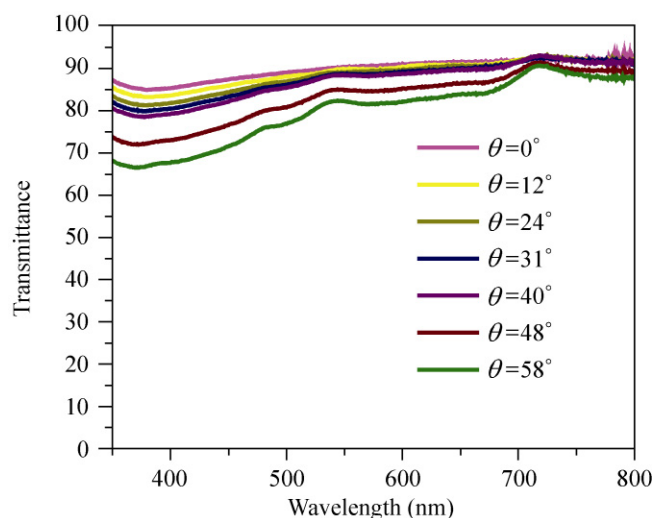


Figure S-1 Plots of transmittance versus wavelength for the nanowire film at different incident light angles

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Figure S-2 shows the sheet resistance distribution for various samples with 85% transmittance. Various samples of Ag nanowire films were prepared on a PET substrate with $T = 85\%$ and a statistical study was performed of the variation of R_{sh} . The average R_{sh} value of the samples was $10 \Omega/\text{sq}$, with the best performing sample showing $R_{sh} = 8.5 \Omega/\text{sq}$.

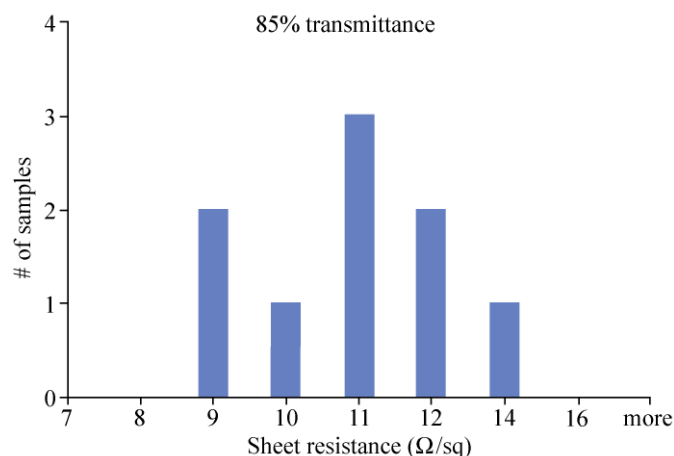


Figure S-2 Distribution of sheet resistance for various Ag nanowire samples with 85% transmittance. The average sheet resistance is $10 \Omega/\text{sq} \pm 1.5 \Omega/\text{sq}$

Figure S-3 shows SEM image of Ag nanowires annealed on an anodized aluminum oxide (AAO) membrane at 300°C for 20 min. Annealing the Ag nanowire film on AAO at 300°C for 20 min resulted in breaking of nanowires and formation of droplets, making the film non-conductive.

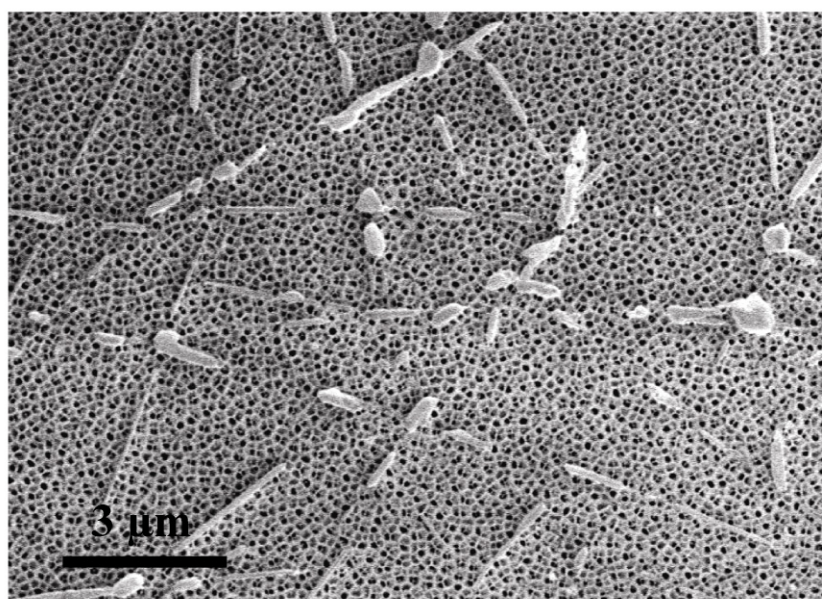


Figure S-3 SEM image of Ag nanowires showing the effect of melting of the nanowires and formation of droplets when annealed at 300°C for 20 min on an AAO membrane

Figure S-4 shows the I - V characteristics of a silver nanowire film with 80% transmittance. A two-probe analysis of an Ag nanowire film on PET with $T = 80\%$ showed ohmic behavior.

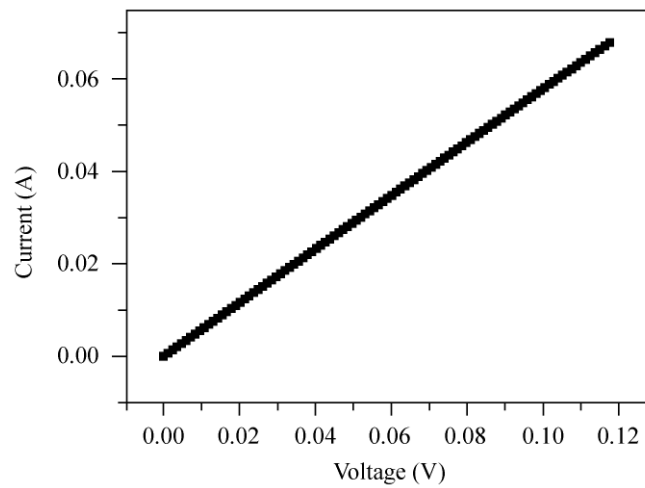


Figure S-4 Two-probe measurement of a silver nanowire film showing the ohmic behavior of the film