Supplementary Materials for

"Novel Patterning of Flexible and Transparent Ag Nanowire Electrodes using an Oxygen Plasma Treatment"

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Supplementary material 01



Figure S1. Optical microscope image showing various shapes of the Ag nanowire electrodes patterned using DFR and an oxygen plasma treatment. The spacing between the lines is ~ 10 μ m.

Supplementary material 02



Figure S2. Comparison of the fractional resistance changes of the Ag nanowire electrodes before and after the DFR coating/NH₃ rinsing process as a function of the bending cycles. For the DFR coating/NH₃ rinsing process, the Ag nanowires were coated with DFR and then rinsed with a NH₃ solution, as described in the manuscript. After stripping the DFR, the cyclic bending test was performed while monitoring the resistance in-situ. The imposed bending strain was set as 2.5%, which corresponds to a bending radius of 5 mm. The experimental details of the bending test can be found in ref [13].

Supplementary material 03



Figure S3. (a–h) SEM images and (i) the optical transmittance/sheet resistance of the Ag nanowire electrodes as a function of Argon plasma treatment time. The treatment times of (a), (b), (c), (d), (e), (f), (g), and (h) were 0, 1, 3, 15, 30, 60, 120, and 300 s, respectively. There was no significant degradation of the optoelectronic properties of the Ag nanowires even after 300 s of Argon plasma treatment.