Electronic Supplementary Material (ESI) for RSC Advances.


# Supporting Information for "Effect of RGO Deposition on Chemical and Mechanical Reliability of Ag Nanowire Flexible Transparent Electrode"

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## Supporting Information 01.

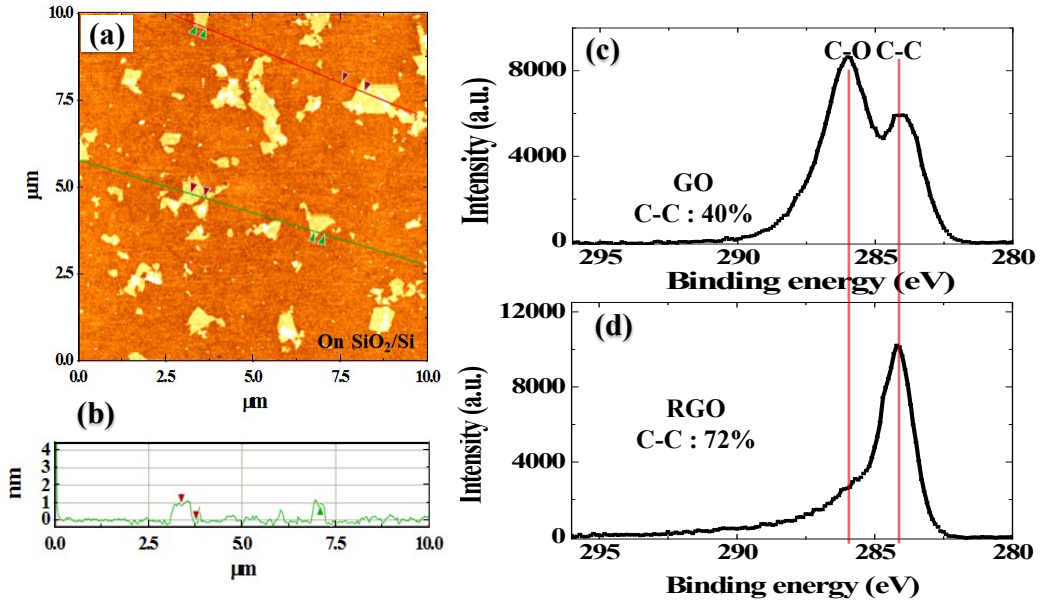


**Fig. S1.** (a) Typical topological AFM image of RGO sheets on Si substrate with $SiO_2$ layer, and (b) the line profile of the RGO sheets along the green line. (c) XPS spectrum obtained from GO sheets and (d) from RGO sheets.

## Supporting Information 02.

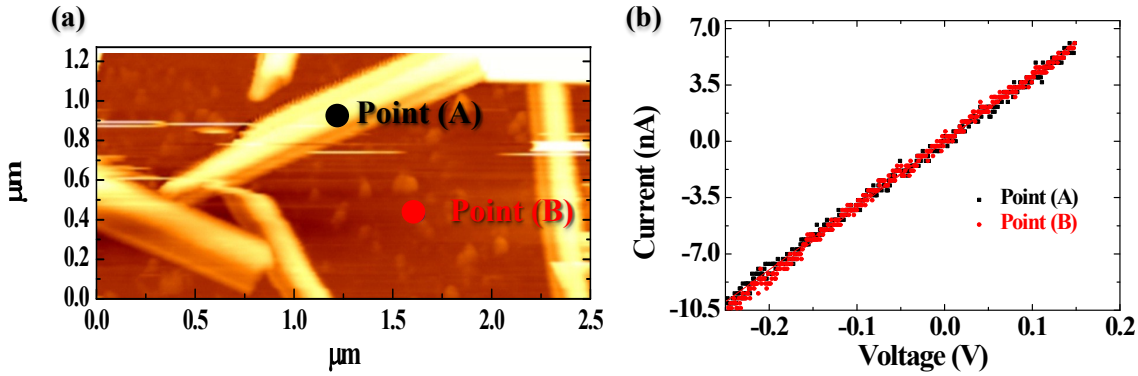


**Fig. S2.** (a) Topological AFM image of RGO layers on the Ag nanowire networks. (b) I-V curves measured at the two points indicated in (a). Point (A) is on the Ag nanowire Point (B) is only on the RGO area.

## Supporting Information 03.

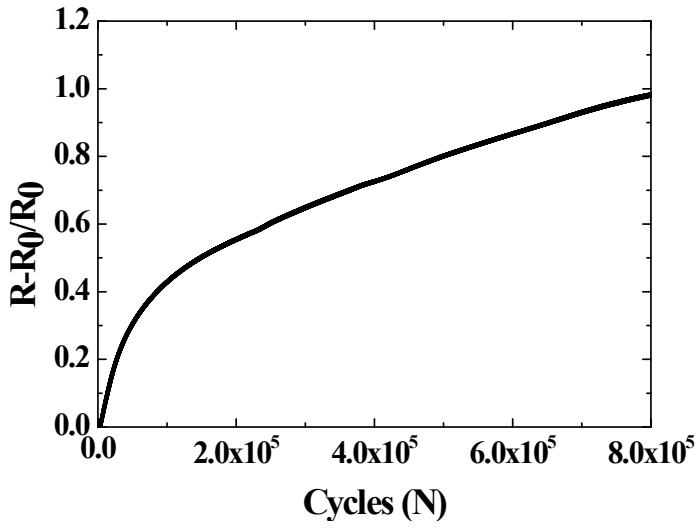


**Fig. S3**. Fractional resistance change of Ag thin film tested under 1.5% strain for 800,000 cycles. The thickness of the Ag thin film was ~100 nm, and the sheet resistance was measured as ~ 0.2 ohm/sq. Ag thin film showed significantly higher increase in fractional resistance of 90% at the 800,000 cycles compared to that of Ag nanowire networks showing only 1.6% increase in fractional resistance.

## Supporting Information 04.

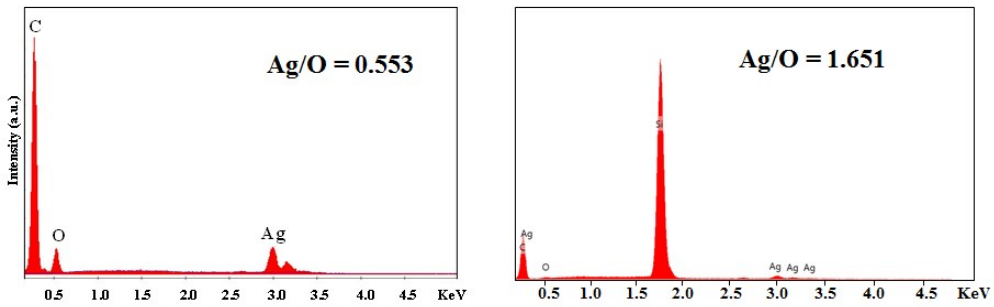


**Fig. S4**. The result of EDX analysis for Ag nanowire electrode (left) and Ag nanowire/RGO hybrid electrode (right) after exposure to ambient air at 70 ºC for 132h.

## Supporting Information 05.

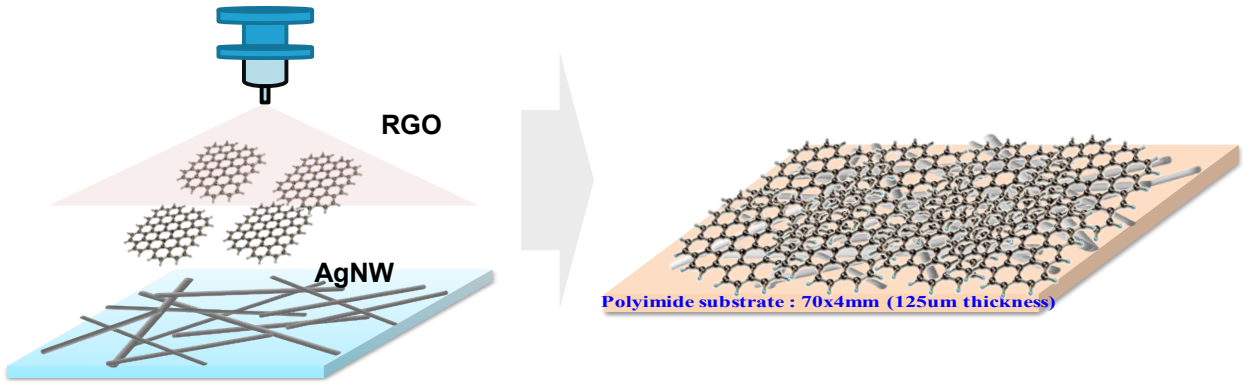


**Fig. S5**. Schematics for the Ag nanowire/RGO hybrid electrode.