Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C.

Electrical Property Enhancement of Electrically Conductive Adhesives Through Ag-coated-Cu Surface Treatment by Terephthalaldehyde and Iodine

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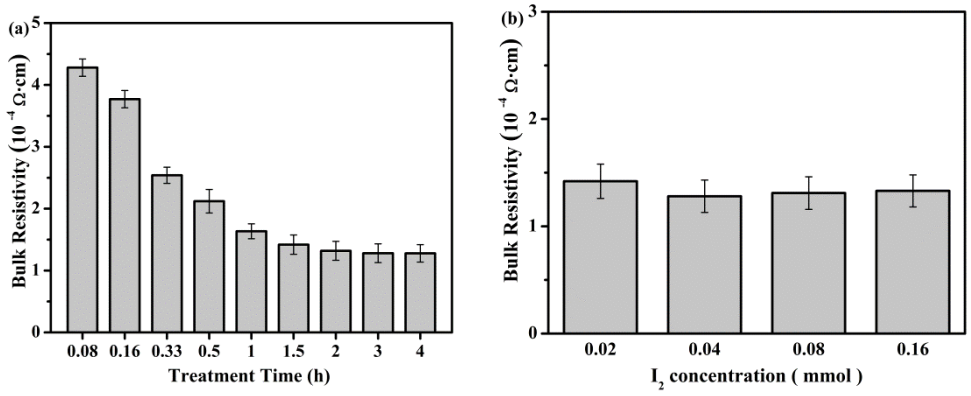

Figure S1. (a) Bulk resistivity of ECAs with TPTA and I_2 (30/1 mole ratio) treated Ag-coated-Cu flakes with different treatment time; (b) Bulk resistivity of ECAs with TPTA and I_2 (30/1 mole ratio) treated Ag-coated-Cu flakes with different I_2 amount.

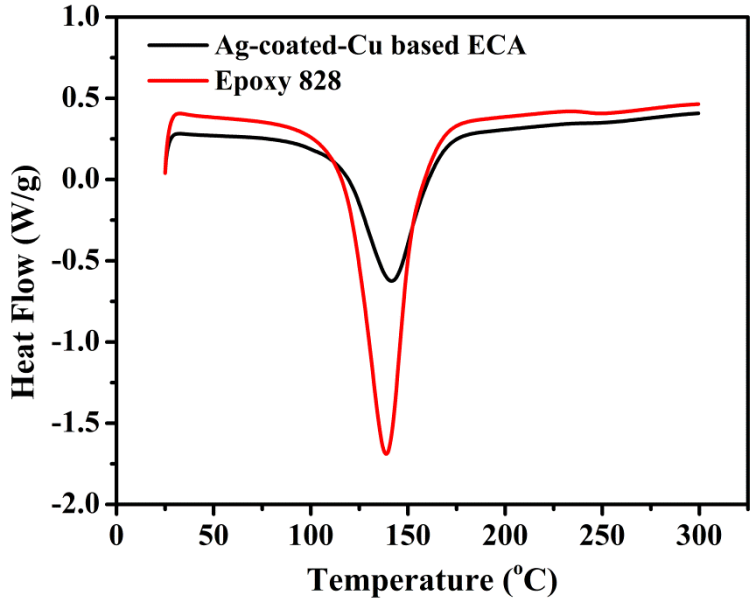

Figure S2. DSC of Ag-coated-Cu based ECA and epoxy 828.

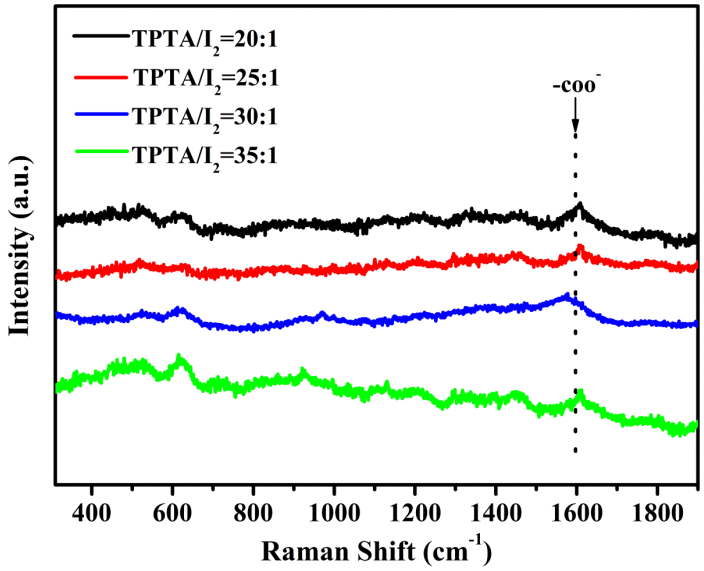

Figure S3. Raman spectrum of Ag-coated-Cu flakes treated by different mole ratio of TPTA/I_2.

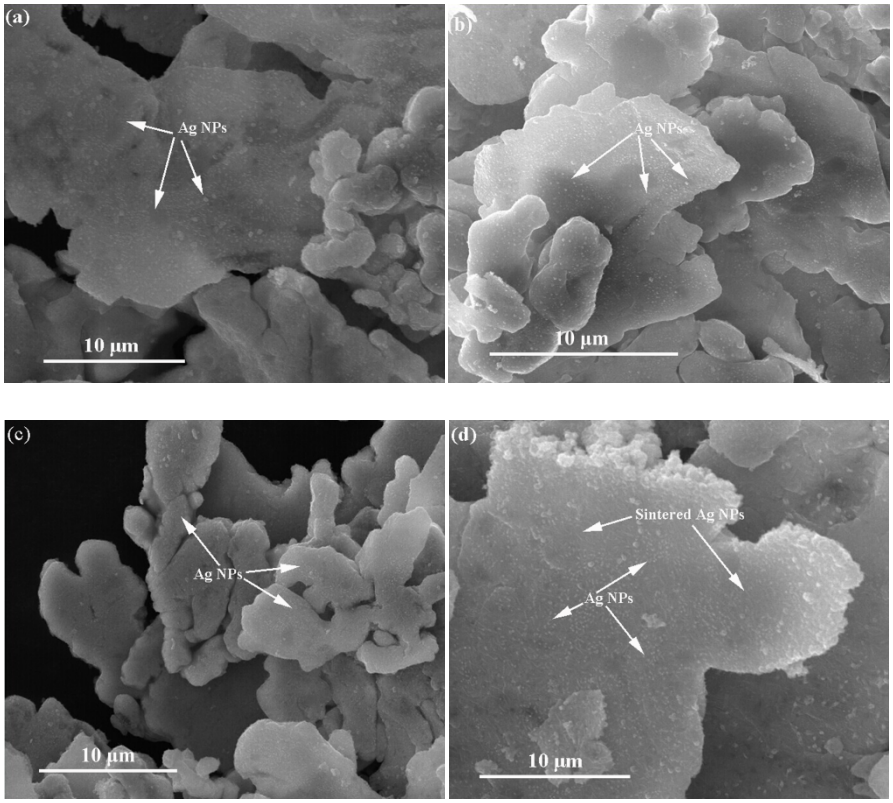

Figure S4. TPTA and I_2 modified Ag-coated-Cu flakes were treated at different temperatures (a) at 150 °C for 1 h; (b) at 160 °C for 1 h; (c) at 170 °C for 1 h; and (d) at 180 °C for 1 h. It is obvious that the Ag nanoparticles begin to sinter at 180 °C.