

## Electronic Supplementary Information for

### Activated Nanoporous Carbon-Gold Nanoparticle Composite Electrode with Enhanced Volumetric Capacitance

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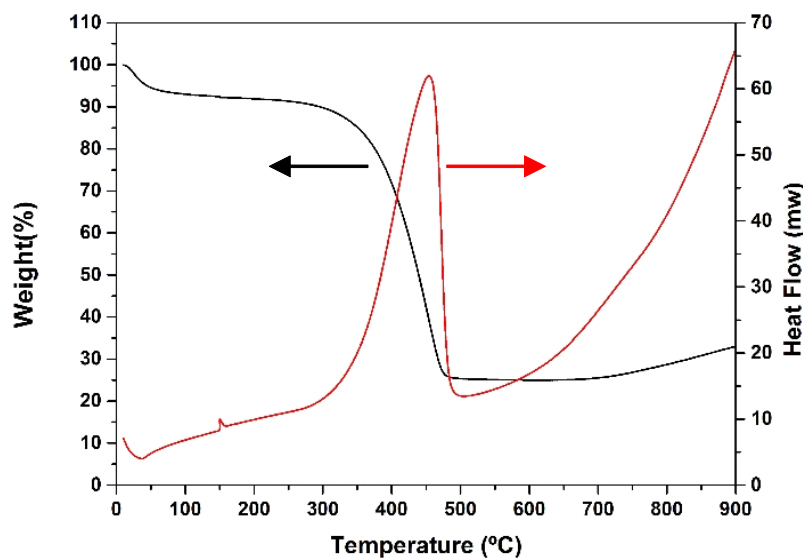
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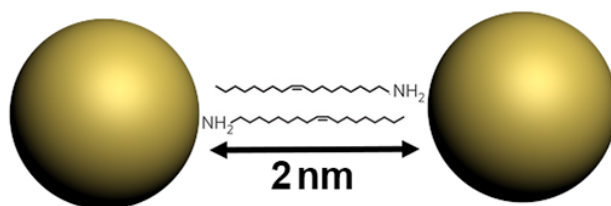
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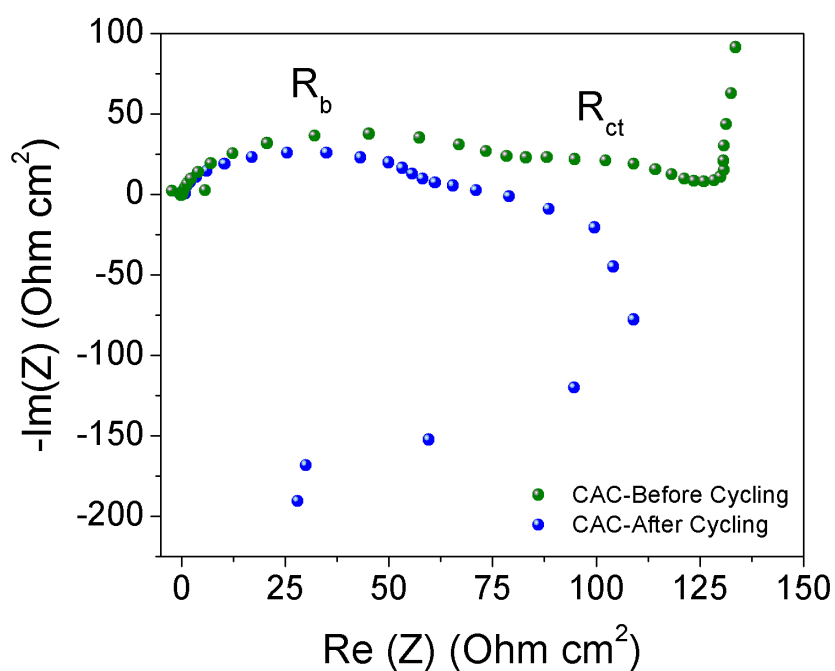
#### Supplementary results



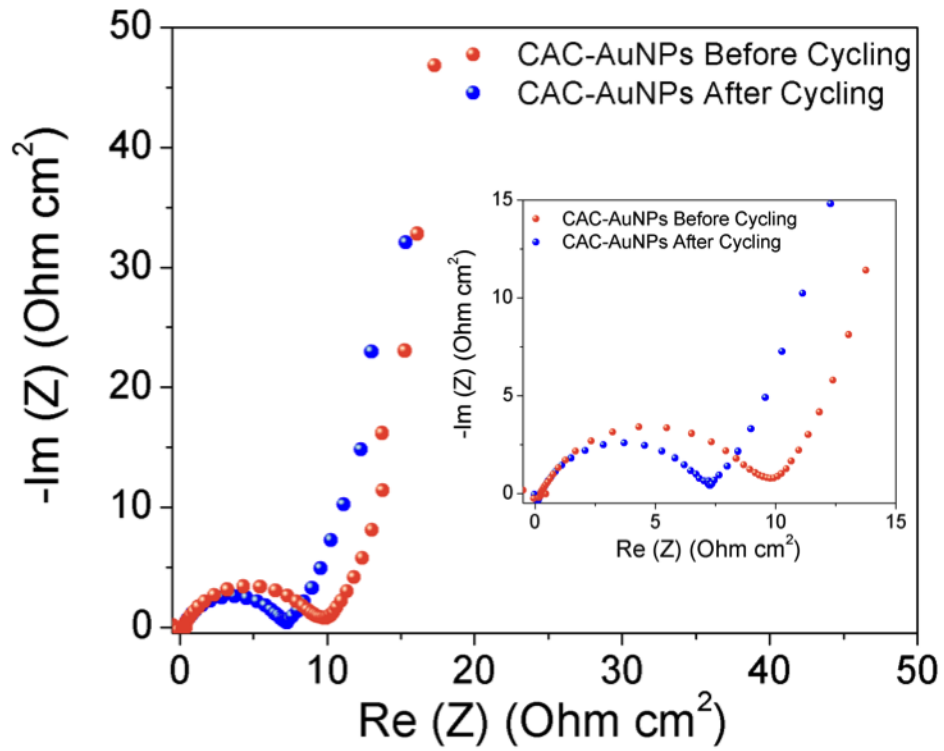
**Figure S11** Thermo-gravimetric analysis (TGA, black) and the differential temperature curve (DTG, red) of CAC-AuNPs



**Figure S12** Schematic diagram of two AuNPs in which an interdigitated bilayer of oleylamine separates adjacent nanocrystals.



**Figure S13** Pulsed Electrochemical Impedance Spectroscopy (PEIS) for the symmetric supercapacitor cell made with CAC nanoporous carbon electrodes.



**Figure S14** Pulsed Electrochemical Impedance Spectroscopy (PEIS) for the symmetric supercapacitor cell made with nanoporous carbon CAC-Gold Nanoparticles electrodes before and after cycling.