

Supplementary information

Composites based on poly(o-toluidine) and reduced graphene oxide composites: from synthesis to optical characterization and potential applications in the energy storage field

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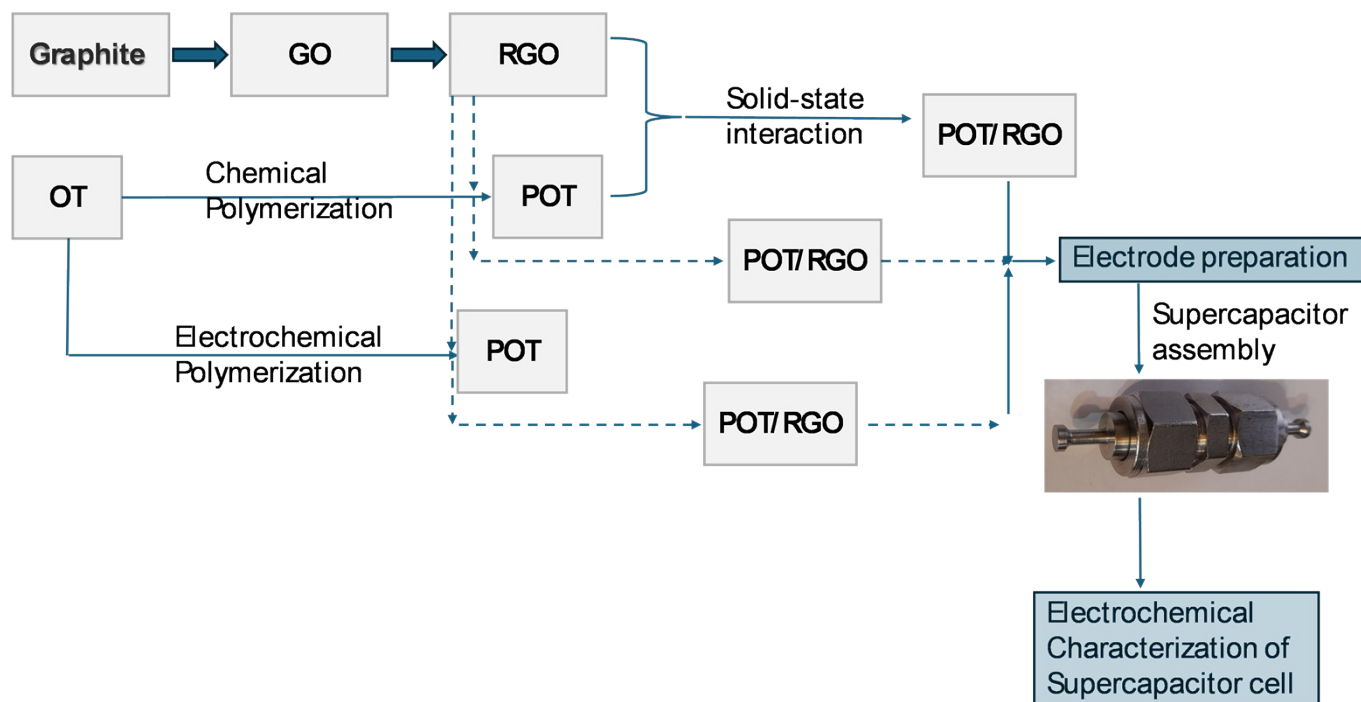
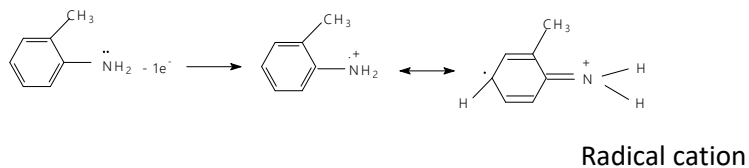


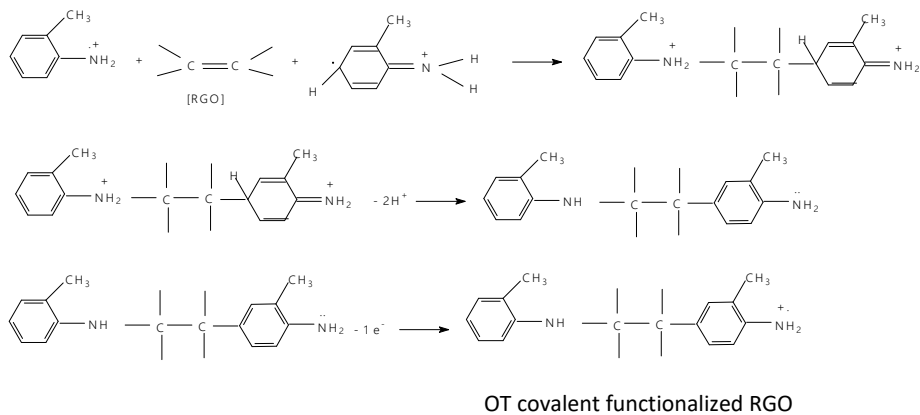
Figure S1. A schematic flowchart summarizing the synthesis routes of RGO and POT/RGO composites, electrode preparation, and cell assembly

Scheme 1S. Electrochemical mechanism of POT/RGO composite synthesis

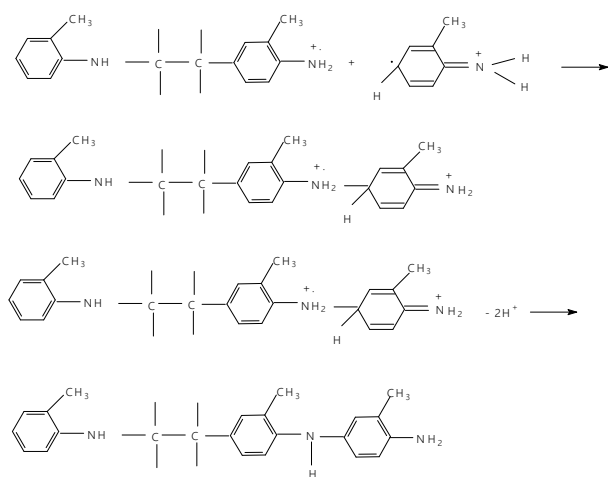
1) OT oxidation reaction:

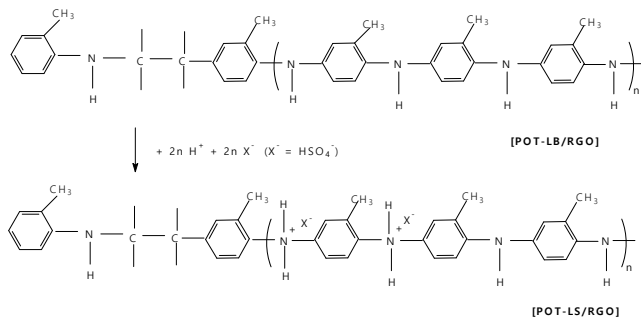


2) OT cation radical reaction with RGO:

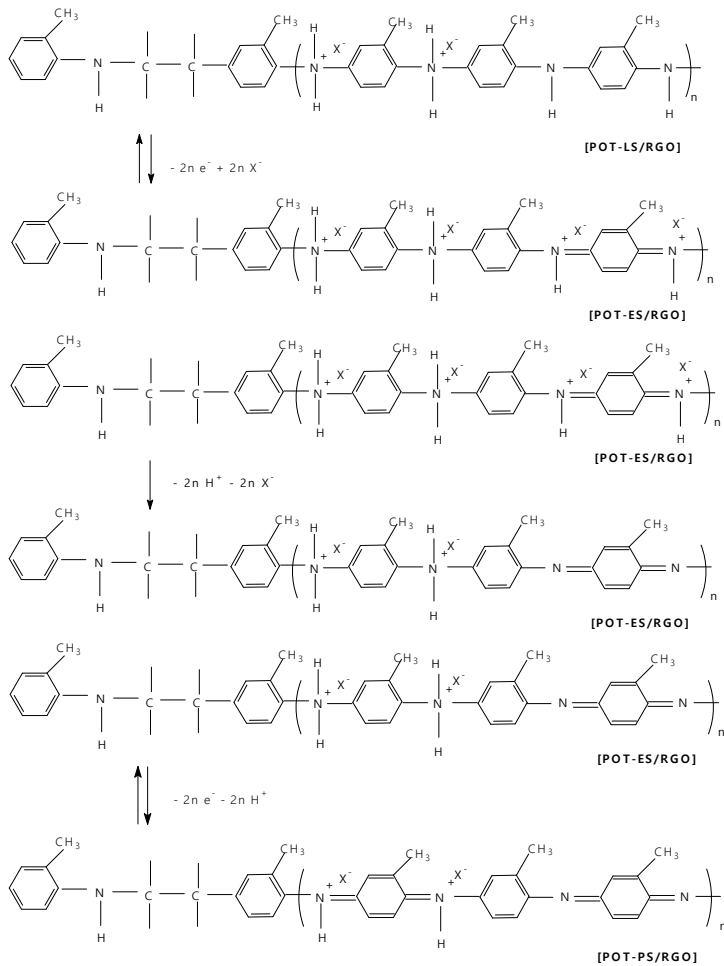


3) The propagation reaction of the macromolecular chain of POT

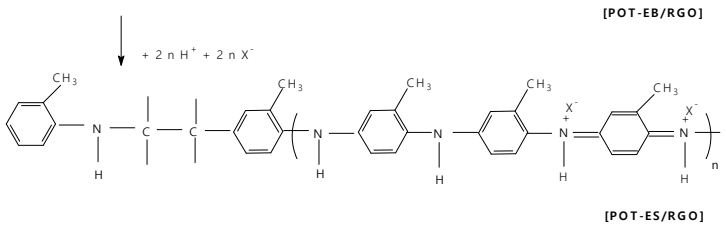
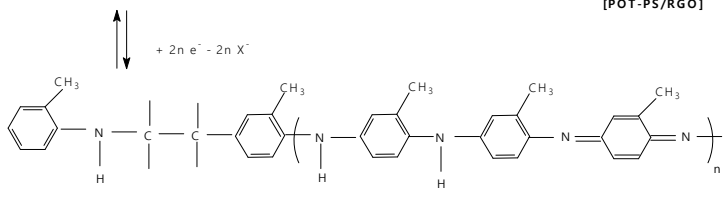
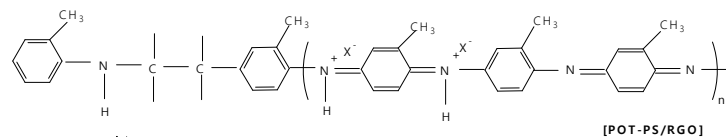


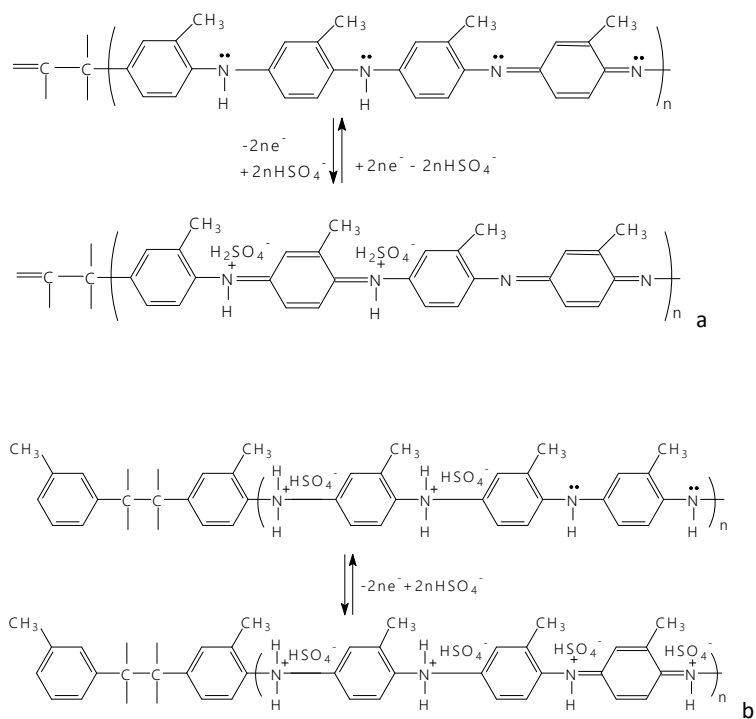


4) Transformation of POT-LS/RGO into POT-ES/RGO and POT-PS/RGO



5) Transformation of POT-PS/RGO into POT-EB/RGO and POT-ES/RGO





Scheme 2S. The reactions at the electrode/electrolyte interface in the case of the electrodes containing the POT-EB/RGO composites synthesized by chemical polymerization of OT in the presence of RGO (a) and the POT-ES/RGO composite synthesized by electrochemical polymerization of OT in the presence of RGO (b)