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Facile Synthesis of Porous Graphene as Binder-free Electrode for Supercapacitor

Application

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ABSTRACT:

Here, porous grapheme oxide (GO) gel deposited on nickel foam was prepared by using polystyrene (PS) colloidal particles as spacers for use as electrodes in high rate supercapacitors, then reduced by Vitamin C aqueous solution in ambient condition.

The PS particles were surrounded by reduced graphene oxide (rGO) sheets, forming crinkles and rough textures. When PS particles were selectively removed, rGO gel coated on the skeleton of Ni foam can formed an open porous structure, which prevents self-aggregation and restacking of graphene sheets. The porous rGO-based

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