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TITLE

Method for the preparation of poly-aniline composites and reduced graphene oxide

INVENTORS

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DESCRIPTION

The invention relates to a method to produce chemically enhanced polyaniline / reduced graphene oxide nanocomposites starting from a previous patented material is developed. The produced nanocomposite is readily dispersible in some organic solvents and it can be used as ink. This ink can be easily processed by the inkjet direct printing technique and produce devices on flexible substrates. The devices has resonance frequency that can be tuned simply by the number of printing passes thanks to electronic resonance with extremely long transfer rates between reduced graphene oxide and polyaniline. This resonance introduces a discontinuity in the capacitance producing asymptotic divergences to infinity having sign dependent on the frequency sweep direction. Hence devices may be geometrically tuned to operate with desired capacitance (either positive or negative) at the desired frequency

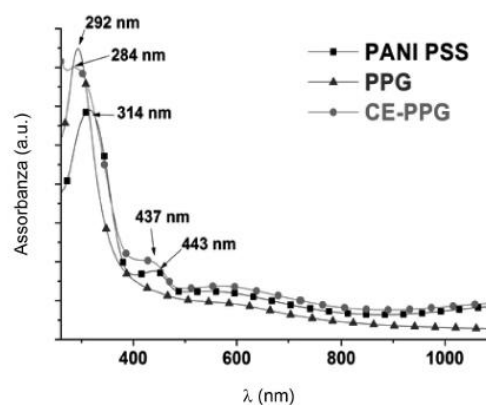


FIG. 1

APPLICATIONS

Electronic devices, inkjet print device, conductive coating of surfaces

KEYWORDS

Supercapacitor ,Nanocomposite material, conductive polymer, graphene oxide, reduced graphene oxide, polyaniline, dianiline, inkjet printing

BIBLIOGRAPHIC DATA

Metodo Per La Preparazione Di Compositi Di Polianilina E Ossido Di Grafene Ridotto

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