

Synthesis and characterization of conducting polymers/graphene oxide derivatives and conducting polymers/carbon black nanocomposites

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The interest on the properties of conducting polymers (CP)/graphene oxide (GO), CP/reduced graphene oxide (rGO), and CP/carbon black (CB) has been related to the possibility of the different applications of these materials, such as in sensors, energy storage and conversion and biological applications [1-3]. Our research group has been studying the properties of these materials for application in different areas. Our main goal is to obtain and to control the synthesis of GO and rGO and combine these materials with CP, as well as to study the effect of different CP:CB composition ratios on its properties. These CP/OG and CP/rGO materials are versatile platforms for application in water filtering and purification systems, protection of metals against corrosion, and energy storage and conversion, which includes solar cells and supercapacitors.

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References:

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