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Synthesis and characteristic of reduced graphene oxide from the Siam weed, (Cromulent Odorata)

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In this work, reduced graphene oxide (rGO) has been synthesized by using Siam weed, (Cromulent Odorata) through carbonization technique and reduced in eco- friendly manner by using Modified Hummer's process. The effects of heating time and temperature on the formation of graphitic carbon were studied. Carbonization of the starting materials was conducted under nitrogen atmosphere at temperatures ranging from 500 to 800 ℃. The morphology and chemical structure of the produced rGO were investigated using FE-SEM, and Raman spectroscopy. Functional groups and crystal structures of carbon from Chromolaena odorata were characterized by Fourier transform infrared spectroscopy (FTIR) and X-ray diffraction (XRD).
Keywords: Reduced Graphene Oxide, Cromulent Odorata, Carbonization, Modified Hummer's process.
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