(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :15/06/2024
(21) Application No.202441046342 A
(43) Publication Date : 28/06/2024

(54) Title of the invention : METHOD OF SYNTHESISING GRAPHENE OXIDE NANOCOMPOSITE

(51) International classification :B82Y0040000000, C01G0049100000, B01D0069100000, C08G0073020000, B01J0020280000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
5 Disclosed is a method (100) for synthesising graphene oxide (GO) nanocomposite that includes mixing 100-150ml of HCl and 15-30grams of LiCl and mixed at 200-600 RPM to obtain an acidic LiCl solution, incorporating GO-0.45 aqueous dispersion and 3-8 grams of aniline monomer into a portion of the acidic LiCl solution, stirring and ultrasonication of the dispersion, dissolving 10-15grams of ammonium persulphate (APS) in the remaining 10 acidic LiCl solution, cooling the dispersion and APS solution below -10°C, adding APS solution dropwise to the GO dispersion under vigorous stirring, adding ferric chloride (FeCl3) solution as a catalyst, allowing the reaction to occur for 18-36 hours, adjusting the pH of the reaction mass below 3 by adding concentrated HCl, allowing the reaction to continue at 0°C for 24 hours, washing the product with deionized water (DI water) in a 15 centrifuge, washing with DI water and obtaining graphene oxide (GO) nanocomposite by drying.
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No. of Pages : 30 No. of Claims : 10