Evaluation of Total Antioxidant Activity (TAC) of Copper Oxide Decorated Reduced Graphene Oxide (CuO-rGO) at Different Stirring time

Authors : Aicha Bensouici, Assia Mili, Naouel Rdjem, Nacera Baali

Abstract : Copper oxide decorated reduced graphene oxide (GO) was obtained successfully using two steps route synthesis was used. Firstly, graphene oxide was obtained using a modified Hummers method by excluding sodium nitrate from starting materials. After washing-centrifugation routine pristine GO was decorated by copper oxide using a refluxation technique at 120°C during 2h, and an equal amount of GO and copper acetate was used. Three CuO-rGO nanocomposite samples types were obtained at 30min, 24h, and 7 day stirring time. TAC results show dose dependent behavior of CuO-rGO and confirm no influence of stirring time on antioxidant properties, 30min is considered as an optimal stirring condition.

Keywords : copper oxide, reduced graphene oxide, TAC, GO

Conference Title : ICEBR 2022 : International Conference on Ecological Biochemistry and Research

Conference Location : Istanbul, Türkiye

Conference Dates : December 20-21, 2022