

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

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**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

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