

## PREPARATION OF MATERIALS BY SIMULTANEOUS OXIDATION OF GRAPHITE AND FULLERENE C60

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### Abstract

Graphene-like materials have attracted a lot of attention during recent years due to their unique properties and wide range of applications. This paper is concerned on preparation of materials based on graphene oxide (GO). We performed simultaneous oxidation of graphite and fullerene C60 to prepare hybrid GO-C60 compounds. Further characterization, modification and freeze-drying of prepared product were carried out. The aqueous GO-C60 suspension has the ability to form fine films, their morphology was studied here. Further, we dealt with freeze-drying of prepared products. Due to promising adsorption and separation capacity of GO we suppose possible usage of GO based materials in protective equipment.

**Keywords:** Graphene oxide, graphite, fullerene C60, freeze-drying

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