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(57) Abstract :

The present invention relates to materials and methods for removing contaminants from polluted air are provided. Specifically, the present invention relates to graphene oxide (GO)-based materials (GO 3D nanosheets) that are chemically modified to comprise functional groups that adsorb a wide variety of pollutants such as heavy metals based on Langmuir-Freundlich adsorption isotherm. Also, the invention relates to a method of preparing the GO 3D nanosheets.

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