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(54) Title: POROUS GRAPHENE OXIDE MATERIALS

(57) Abstract: A method of preparing a porous graphene oxide material. The method includes the steps of: (1) preparing graphene oxide sheets from graphite at 40 to 170 °C; (2) providing a graphene oxide suspension containing the graphene oxide sheets; (3) heating the graphene oxide suspension with a base at 25 to 300 °C for 0.1 to 48 hours to obtain base-treated graphene oxide sheets; and (4) heating a mixture of the base-treated graphene oxide sheets and an acid at 25 to 300 °C for 0.1 to 48 hours to yield the porous graphene oxide material. Also disclosed are novel porous graphene oxide materials and methods of using these materials as catalysts.



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