

ABSTRACT

The present invention relates to a graphene material. Disclosed are a graphene powder and its preparation method and application. The graphene powder is a stack of graphene sheets. The graphene powder involves in its Raman spectrum a D peak and a G peak with peak heights of I_D and I_G respectively, where I_D/I_G is 0.10 or less. The graphene powder in accordance with the present disclosure can be applied in conductive composite materials, anti-corrosion coatings, heat dissipation composite materials. In particular, when used in lithium-ion batteries, it can significantly reduce electrode internal resistance and improve battery stability at any current rates.

Fig. 1