

ABSTRACT

GRAPHITE-BASED CARBON MATERIAL USEFUL AS GRAPHENE
PRECURSOR, AS WELL AS METHOD OF PRODUCING THE SAME

Provided is a graphite-based carbon material useful as a graphene precursor, from which graphene is easily exfoliated when the graphite-based carbon material is useful as a precursor and from which a highly-concentrated graphene dispersion can easily be obtained. The graphite-based carbon material is a graphite-based carbon material useful as a graphene precursor wherein a Rate (3R) based on an X-ray diffraction method, which is defined by following Equation 1 is 31% or more:

$$\text{Rate (3R)} = P3 / (P3 + P4) \times 100 \cdots \cdots \text{Equation 1}$$

wherein

P3 is a peak intensity of a (101) plane of the rhombohedral graphite layer (3R) based on the X-ray diffraction method, and

P4 is a peak intensity of a (101) plane of the hexagonal graphite layer (2H) based on the X-ray diffraction method.

Fig. 5