

Large scale conversion of helical-ribbon carbon nanofibres to graphene related materials

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GANF helical-ribbon carbon nanofibers produced at industrial scale have been successfully converted in single and few layer graphene oxide by the so-called Hummers method.

The chemical reaction parameters of the oxidative process severely affected the interlayer spacing in the resulting powdered graphene oxide and, consequently, they showed different oxidation behaviour.

By controlling the interlayer spacing of GO, it was possible to obtain a variety of graphene-related products by thermal treatments such as exfoliation-reduction by flash-pyrolysis