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Nippon Shokubai announces success in mass production test of Graphene Oxide based materials

NIPPON SHOKUBAI CO., LTD. [Headquarter: Osaka, Japan, President: Masanori Ikeda,TSE:4114] (“Nippon Shokubai”) hereby announces that Nippon Shokubai has succeeded in mass production test of Graphene Oxide based materials. The production volume attained in the mass production test was improved dozens of times as much as that attained at laboratory, and Nippon Shokubai will start to provide graphene oxide based materials as samples for application development.

Graphene oxide based materials are lamellar carbon compounds with the approximately 1 nm thickness and expected to show the excellent properties for various functional materials, such as innovative battery materials, lubricants, water treatment membranes, and catalysts. However, since these materials are synthesized via oxidation of graphite under severe condition in which a strong oxidizer reagent and an acidic solvent are needed, the mass production of these materials has been major issues.

Nippon Shokubai resolved various problems in the oxidation reaction and succeeded in mass production test of graphene oxide based materials by utilizing its control technology for stable proceeding of chemical reactions in the mass production of chemical products in collaboration with Okayama University which retained academic knowledge about reaction mechanism of graphene oxide.

Sample appearance

- Graphene Oxide(water dispersion) • Reduced Graphene Oxide(solvent dispersion, powder)
- Modified Graphene Oxide(solvent dispersion, powder)

This research is carried out with the grant of New Energy and Industrial Technology Development Organization (NEDO).

Graphene Oxide based materials are exhibited at upcoming “Convertech JAPAN 2017” and “nano tech 2017”, to be held from Feb. 15(Wed)-17(Fri), 2017 at Tokyo Big Sight in Japan. The booth will be located at 2B-10 and 4B-01.

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