

Catalog # 06-2545 Graphene oxide (4 mg/mL water dispersion)

Physical Properties:

Form: Dispersion of graphene oxide sheets
Sheet dimension: Variable
Color: Yellow-brown
Dispersibility: Polar solvents
Solvent: Water
pH: 2.2-2.5
Concentration: 4 mg/mL
Monolayer content (measured in 0.5 mg/mL): >95%*

*Note: 4 mg/mL tends to agglomerate the GO flakes and dilution followed by slight sonication is required in order to obtain a higher percentage of monolayer flakes

Elemental Analysis: (sample preparation: 2 g of 4 wt% GO in water were dried under vacuum at 60°C overnight)

Carbon: 49-56%
Hydrogen: 0-1%
Nitrogen: 0-1%
Oxygen: 41-50%
Sulfur: 0-2%

Quality Control:

Amount of residue on evaporation
pH control
Elemental analysis

Applications: Graphene/polymer composite materials, batteries, biomedical, solar cells, supercapacitors, support for metallic catalysts, low permeability materials, biosensors, multifunctional materials, graphene research

References:

1. *J. Mater. Chem.*, **2011**, 21, 9762.
2. *Environ. Sci. Technol.*, **2013**, 47, 3715.
3. *Phys. Chem. Chem. Phys.*, **2013**, 15, 2321.

