Technical Data Sheet

ACS Material Graphene Dispersion in NMP (Oxygen Reduced)

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1. Preparation Method

Electrochemical Cleavage Method

2. Characterizations

BET surface area (m^2/g):	650-750
Conductivity (S/m):	500-700
Layers:	1-5 atomic layer graphene nanosheets
Lateral size (μm):	0.5-5
Oxygen (wt%):	<5%

Composition	Content	Unit
Graphene Nanoplatelets:	4	wt%
Flake Diameter:	1-3	μm
Thickness:	3-5	nm
Assistant Reagent:	1	wt%
Dispersant:	0.1	wt%
Water:	94.9	wt%

XPS Results of Graphene Dispersion in NMP

Element	Atomic conc. %	Mass conc. %
C 1s	97.22	96.45
O 1s	2.05	2.70
Other	0.73	0.85

3. Application Fields

This product is thin graphene based NMP dispersion with high electrical conductivity. It is non-toxic, non-strang odor, non-corrosive characteristics, chemical stability, and low resistivity. By contrast with the similar products, this product with technical advantages is metal ion free and can be widely applied in battery slurry as conductive agent to improve the high rate charge-discharge capacity. Various types of battery electrode materials conductive additives, such as lithium ion battery, nickel hydrogen battery, alkaline (manganese dioxide) battery cathode or anode material conductive agent.