



Reduced Graphene Oxide

**World's Largest Specific
Surface Area Measured Combined
with High Electronic Conductivity
and Catalytic Activity**

**Nanotech Energy provides broad selection of
cost-effective graphene products for a variety
of applications**

NANOTECH ENERGY

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Single Layer
Graphene Produced
by Eco-Friendly
Chemical Approach

Good for Coatings,
Printed Electronics,
Energy Conversion
and Storage,
Sensors, Water
Purification and
Much More

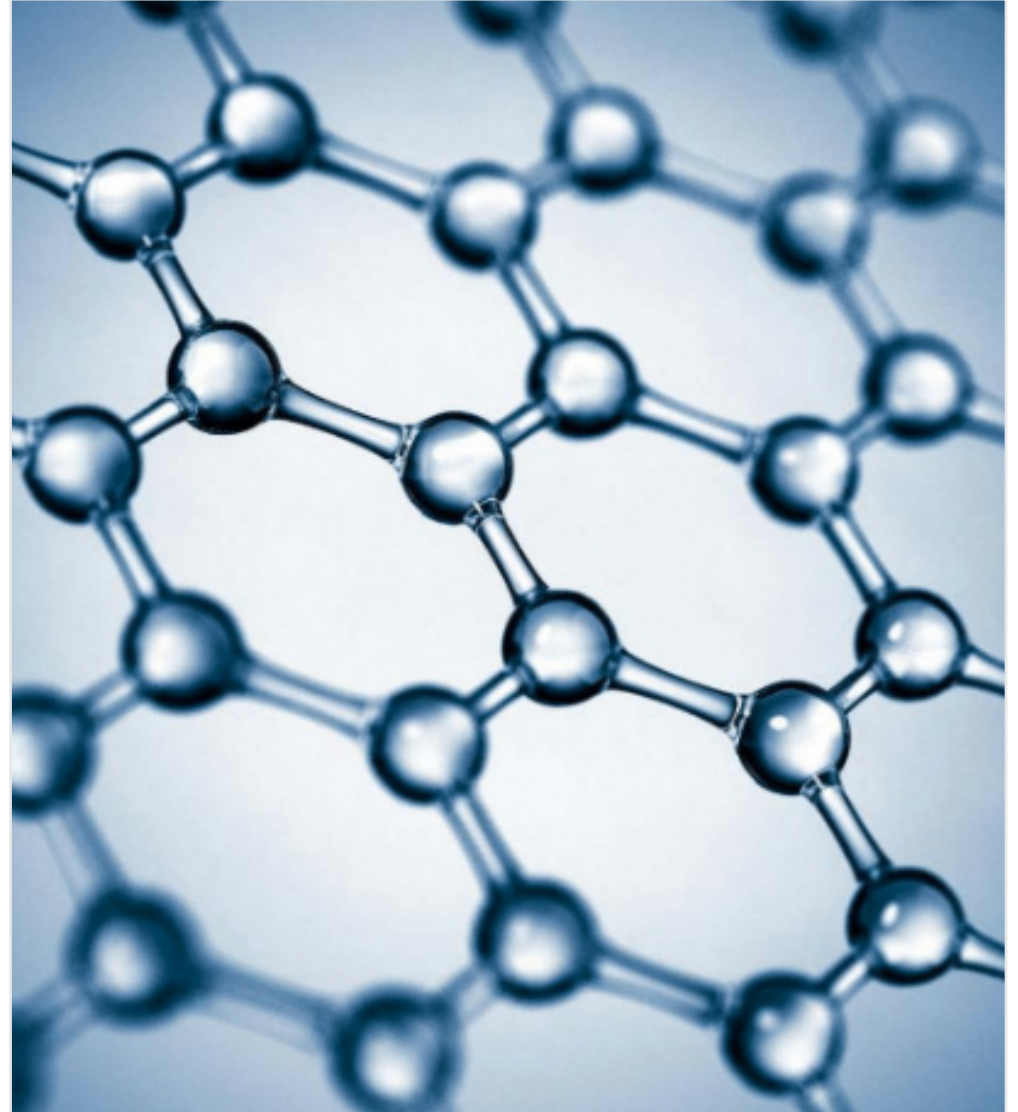
Powder, Paste and
Dispersions

Large Quantities
Available

Graphene and Related Materials

Since it was discovered more than a decade ago, graphene has attracted interest thanks to its unusual electronic, optical, mechanical and electrical properties which opens the door for a wide range of technological applications. However, the production of functional graphene materials on a large scale is still challenging but Nanotech Energy is about to change this game.

Nanotech Energy offers graphene oxide and graphene products in different formulations that are designed to be customized for every kind of use. Because of this, Nanotech Energy's graphene products have the potential to revolutionize graphene industry with applications in batteries, transparent conducting electrodes, functional inks, flexible displays, antistatic coatings, RFID antennas to name but a few.



Why Nanotech Graphene?

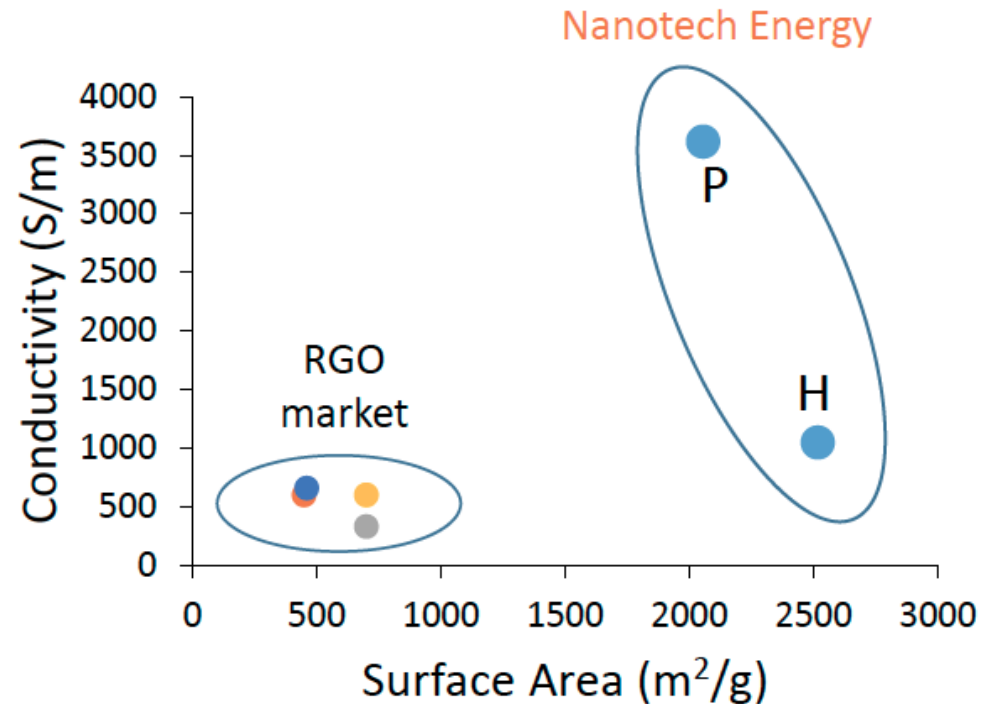


WORLD'S FIRST

Nanotech Energy owns what can arguably be considered the world's first graphene patent filed in May of 2002. Nobel Prize winning researchers Sir Andre Geim and Konstantin Novoselov first work on graphene was published two years later. Since 2002, Nanotech Energy has staked its claims on 28 patents in graphene production, processing, applications and much more.

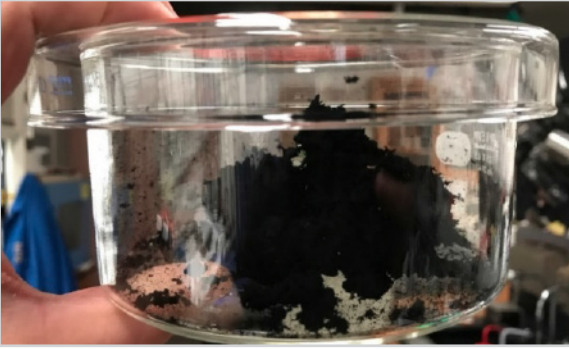
Unprecedented Electronic and Structural Properties

Graphene offers impressive combination of high strength, chemical stability and excellent conductivity. We are currently producing graphene via rapid and environmentally friendly methods, which represents a key to low-cost manufacturing. We also offer two forms of graphene whose electronic conductivity and microstructure have been optimized to meet the needs of our customers. With over 2000 m²/g, Nanotech Energy offers graphene with the world's largest specific surface area of any commercial graphene. As a result, our graphene has potential to transform the industry of printed electronics, energy storage, composite materials, solar cells, desalination membranes and much more.



Product Overview

POWDER



DISPERSION



PASTE

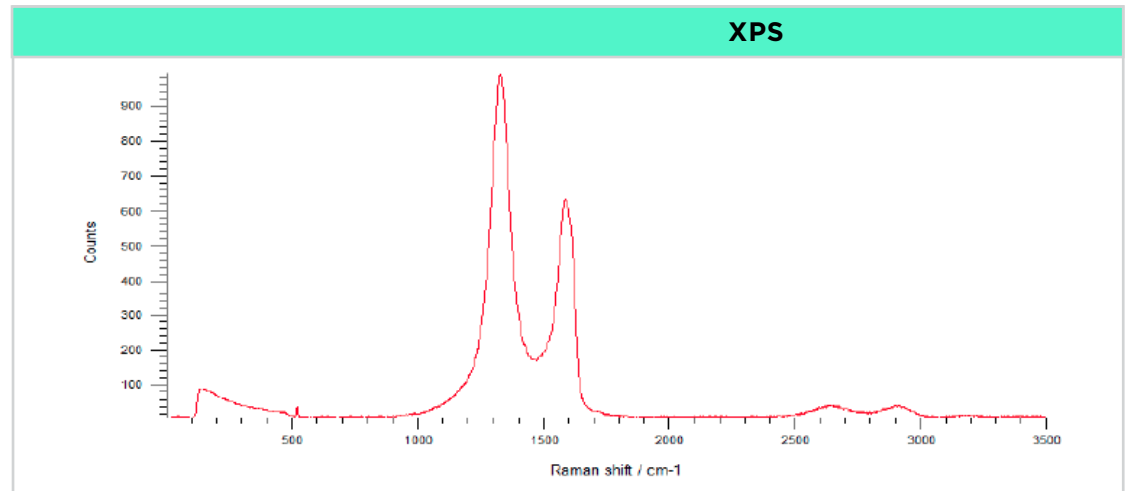
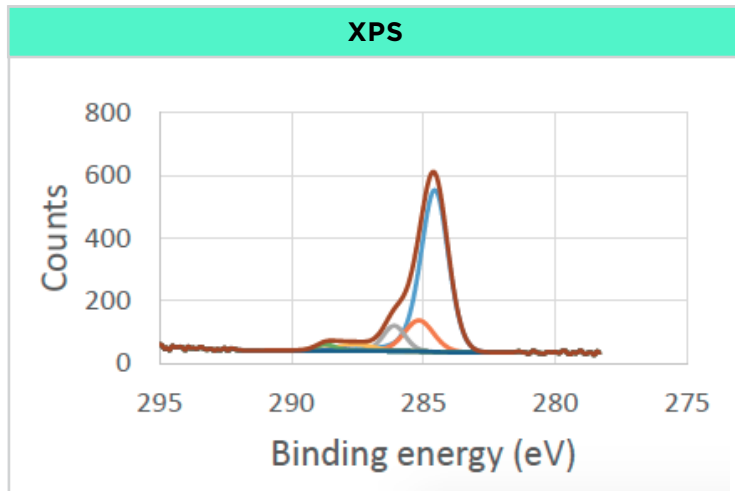


Our graphene grades H and P have several advantages over graphene products currently available in the market. Experiments show that commercial graphene products are technically few to multilayered graphene platelets produced from the exfoliation of expanded graphite. As such, those products have limited surface area which is a critical parameter for most applications. Without the large surface area, graphene loses most of its superlatives and behaves just like graphite. Using proprietary methods, Nanotech Energy has developed unique process for producing graphene that is truly single layer in nature and demonstrates some of the highest specific surface areas of all graphene commercially available. In addition, our graphene exhibit additional features such as low oxygen content, high purity, easy processing from both water and organic solvents. These features enable our graphene to be used in a wide range of applications including but not limited to batteries, super capacitors, sensors, conductive films, transparent conducting electrodes, electronics, functional inks, composites with enhances properties, catalysis, fuel cells, lubricant, anti-corrosion coatings, antistatic coating, thermoelectric devices, hydrogen storage, water filtration, environmental remediation, RFID antennas and structural materials. We offer graphene in several formulations in order to meet the performance demands of our customers. Nanotech Energy offers graphene in three different formulations: power, dispersion and paste.

Product Data

	GRAPHENE, GRADE H	GRAPHENE, GRADE P
Appearance	Hydrated powder	Hydrated powder
Color	Black	Black
Carbon content	???? (expected >92%)	???? (expected >93%)
Oxygen content	???? (expected <8%)	???? (expected <7%)
Bulk conductivity	>1100 S/m	>3600 S/m
Surface area	2519 m ² /g	2057 m ² /g
Density	???? g/cm ³	???? g/cm ³
Thickness	1 atomic layer (more than 80%)	1 atomic layer (more than 70%)
Lateral size	1-10 μm	1-20

*Measured by methylene blue absorption method

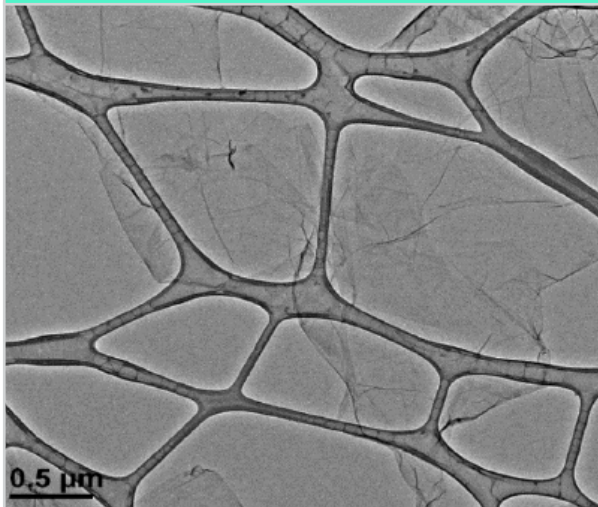


Product Data - continued

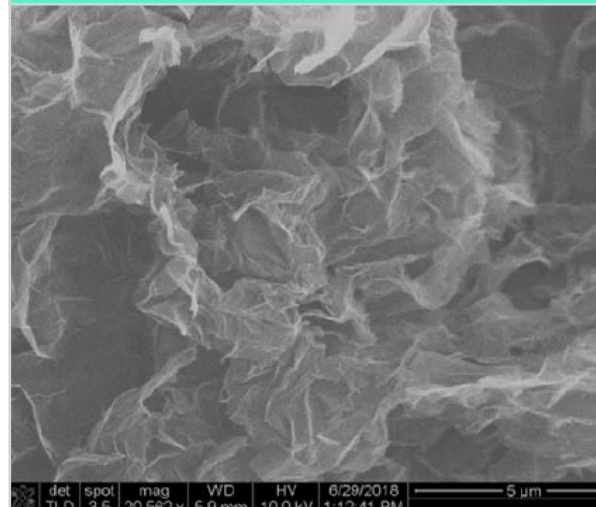
Elemental Analysis (the test to be carried out first week of December, listed expected numbers based on XPS results).

	GRAPHENE, GRADE H	GRAPHENE, GRADE P
Carbon	>91.6%	>92.5%
Oxygen	<8%	<7%
Nitrogen	<0.6%	0.6%
Hydrogen	<0.01%	<0.01%
Sulfur	<0.1%	<0.1%

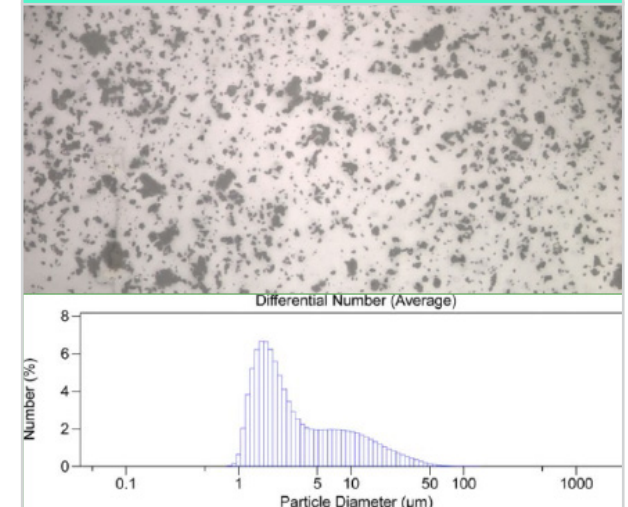
TEM of Single Layer Graphene



SEM of bulk graphene powder



Particle size distribution (DLS)



Product Selection

NanoRGO products features functional graphene materials with different formulations (powder and paste) and chemical grades (H and P). Check out our website for product selection and offering.

