

Material Science

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(1) Rare Earth Element

Rare Earth Element are groups of materials with unique properties. IUPAC(International Union of Pure and Applied Chemistry) define as “Rare Earth Element or REE” according to physical and chemical characters. Generally, REE is divided to three type; **LREE**: $_{57}\text{La}\sim_{63}\text{Eu}$; **MREE**: $_{61}\text{Pm}\sim_{37}\text{Ho}$; **HREE**: $_{21}\text{Sc}$ 、 $_{39}\text{Y}$ 、 $_{68}\text{Er}\sim_{71}\text{Lu}$. Added as a modifier with small amount in the iron and steel and non-ferrous metallic materials will be able to significantly improve performance, increase the strength of steel and corrosion resistance ability. Rare Earth Element has been widely used in the defense industry, metallurgy, machinery, chemical, and other traditional aspects of the field.

Z	Symbol	Name	Selected applications
21	Sc	Scandium	Light aluminium-scandium alloy for aerospace components, additive in Mercury-vapor lamps.
39	Y	Yttrium	Yttrium aluminium garnet (YAG) laser, yttrium vanadate (YVO4) as host for europium in TV red phosphor, YBCO high-temperature superconductors, yttrium iron garnet (YIG) microwavefilters, energy-efficient light bulbs
57	La	Lanthanum	High refractive index glass, flint, hydrogen storage, battery-electrodes, camera lenses, fluid catalytic cracking catalyst for oil refineries
58	Ce	Cerium	Chemical oxidizing agent, polishing powder, yellow colors in glass and ceramics, catalyst for self-cleaning ovens, fluid catalytic cracking catalyst for oil refineries, ferrocerium flints for lighters
59	Pr	Praseodymium	Rare-earth magnets, lasers, core material for carbon arc lighting, colorant in glasses and enamels, additive in didymium glass used in welding goggles, ferrocerium firesteel (flint) products.
60	Nd	Neodymium	Rare-earth magnets, lasers, violet colors in glass and ceramics, ceramic capacitors
61	Pm	Promethium	Nuclear batteries
62	Sm	Samarium	Rare-earth magnets, lasers, neutron capture, masers
63	Eu	Europium	Red and blue phosphors, lasers, mercury-vapor lamps, NMR relaxation agent
64	Gd	Gadolinium	Rare-earth magnets, high refractive index glass or garnets, lasers, X-ray tubes, computer memories, neutron capture, MRI contrast agent, NMR relaxation agent
65	Tb	Terbium	Green phosphors, lasers, fluorescent lamps
66	Dy	Dysprosium	Rare-earth magnets, lasers
67	Ho	Holmium	Lasers
68	Er	Erbium	Lasers, vanadium steel
69	Tm	Thulium	Portable X-ray machines
70	Yb	Ytterbium	Infrared lasers, chemical reducing agent
71	Lu	Lutetium	PET Scan detectors, high refractive index glass

➤ **Product List**

Item	Formula	Grade,%	Grade,%	Grade,%	Remark
Yttrium Oxide	Y ₂ O ₃	99.9995			Laser Grade
Yttrium Europium Oxide	(Y、Eu) _x O _y	99.99			Phosphor Grade
Neodymium Metal	Nd	99	99.5		
Neodymium Fluoride	NdF ₃	96	99.5		
Neodymium Carbonate	Nd ₂ (CO ₃) ₃	99	99.5		
Neodymium Oxide	Nd ₂ O ₃	98	99	99.5	99.90%
Neodymium Hydrate	Nd(OH) ₃	99	99.5		
Europium Oxide	Eu ₂ O ₃	99.99			Phosphor Grade
Lanthanum Nitrate	La(NO ₃) ₃ · 6H ₂ O	99	99.9		
Lanthanum Oxide	La ₂ O ₃	99	99.9	99.995	
Lanthanum Carbonate	La ₂ (CO ₃) ₃	99	99.9	99.99	
Dysprosium Oxide	Dy ₂ O ₃	99.5	99.95		
Praseodymium Fluoride	PrF ₃	96	99.5		
Praseodymium Carbonate	Pr ₂ (CO ₃) ₃	96	99.5		
Praseodymium Oxide	Pr ₆ O ₁₁	96	99	99.5	
Praseodymium Metal	Pr	99	99.5		
Terbium Oxide	Tb ₄ O ₇	99.95	99.99		
Scandium Oxide	Sc ₂ O ₃	99.9999			Laser Grade
Cerium Hydrate	Ce(OH) ₄	90	99	99.95	
Cerium Nitrate	Ce(NO ₃) ₃ · 6H ₂ O	99.9	99.95	99.99	
Cerium Carbonate	Ce ₂ (CO ₃) ₃	99	99.9	99.95	99.99%
Cerium Oxide	CeO ₂	99	99.9	99.95	99.99%
Cerium Acetate	Ce(AC) ₃	99	99.9	99.99	
Cerium Chloride	CeCl ₃	99	99.9	99.95	
Ce-Tb Oxide	(Ce、Tb) _x O _y	99			
Low-Chloride Cerium Carbonate	Ce ₂ (CO ₃) ₃	99.9	99.95		
Diammonium Cerium Nitrate	Ce(NO ₃) ₆ (NH ₄) ₂	99.99			
La-Ce-Tb Oxide	(La、Ce、Tb) _x O _y	99			
(La,Ce,Y,Zr) _x O _y					
(La,Ce,Zr) _x O _y					
Other Metal Oxide					

(2) Fuel-Cell Material

ECOWAY TECHNOLOGY CO. has ability to supply custom materials when needed. From simple formulation, premium powder to complex components, we can all find for valued customer. Below is a list of materials and components .For sure list is not including all. If you do not see what you need please feel free to contact us anytime and we will let you know if it is something we can provide.

➤ Product List

Item	Formula	Grade, (%)	Z-avg, (nm)	Remark
Lanthanum Strontium Manganite	$\text{La}_{(0.8)}\text{Sr}_{(0.2)}\text{MnO}_3$	99.5 %	*	Single-Phase Perovskite
Zirconium Oxide	$\text{Y}_{(0.08)}\text{Zr}_{(0.92)}\text{O}_2$	99.9 %	15~20 nm	Non spray granulation
		99.9 %	1.7~5 μm	spray granulation
Cerium Nitrate Hexahydrate	$\text{Ce}(\text{NO}_3)_3 \cdot 6\text{H}_2\text{O}$	99.99 %	*	CAS NO: 10294-41-4

(3) Nanopowders

Nanopowder is a material fabricated with grain sizes under 100 nanometers. Generally, materials are composed of varieties of elements which is ranging from metals and composites. Nanopowders are agglomerates of ultrafine particles, nanoparticles, or nanoclusters. Nanoparticle research is currently an area of intense scientific interest due to a wide variety of potential applications in biomedical, optical and electronic fields. We aim to help you find what you are looking for in the world of nanopowders.

➤ Product List

Elements & Alloys			
Ag , 99.99%, 80-100 nm, metal basis	*Al , 99.9%, 40nm, metal basis	C Porous Carbon, 20-40nm, (Plant)	*Cu , 99.9%, 70nm, metal basis
Ag , 99.99% , 50-80 nm, w/~0.2% PVP	*Al , 99.9%, 18 nm, laser synthesized	C Porous Carbon, 60-80nm, (Plant)	*Cu , 99.9%, 40 nm, metal basis
Ag , 99.99%, 50-80 nm, metal basis	Au , 99.99+%, 50-100 nm	C Activated Carbon <100nm (Coconut)	*Cu , Partially Passivated,99.8%, 25nm
Ag , 99.99%, 30-50 nm, w/~0.2% PVP	Au , 99.97+%, 28 nm	C Activated Carbon <100nm (Bamboo)	*Cu Carbon Coated, 99.8%, 25 nm
Ag , 99.99%, 30-50nm, metal basis	Au , 99.95+%, 15 nm	C Activated Carbon <100nm (Charcoal)	*Fe , 99.9%, 800 nm
Ag , 99.99%, 20nm, w/~0.2% PVP	Au Dispersion, 14 nm 1000ppm	C Carbon NanoFiber 95%	*Fe , 99.5+%, 95-105 nm, metal basis
Ag , 99.99%, 20nm, metal basis	Pt Dispersion, 3 nm 1000ppm	C Graphitized Carbon NanoFiber 99.9%	*Fe , 99.5+%, 65-75 nm, metal basis
Ag Dispersion 2 nm, 200ppm	*B , 99+%, 1-2um	C Graphene Nanoplatelets	*Fe , 99.5+%, 35-45 nm, metal basis
Ag Dispersion 2 nm, 2000ppm	*B , 99.5+%, 500nm	C Graphene Oxide Dispersion	*Fe , 99.5%, 25 nm, partially passivated
Ag Dispersion 15nm, 1000ppm	Bi , 80nm, 99.9%, Metal Basis	*Co , 99.9%, APS 1.3 um, metal basis	*Fe , 99.5%, 25 nm, carbon coated
Ag Dispersion 15 nm, 50,000ppm	C (Diamond), 54.5%, 3-10 nm	*Co , 99.8%, 28 nm, partially passivated	In , 99.99%, 80 nm, tetragonal
Ag Doped Antibacterial Nanopowder	C (Diamond), >98.3%, 3-10 nm	*Co , 99.8%, 28 nm, carbon coated	*Mo , 99.9%, 35-45 nm, metal basis
*Al , 99.9%, 800 nm, metal basis	C (Natural Graphite), 400 nm-1.2 um	*Cr , 99.9%, 35-45 nm, metal basis	*Mg , 99.9%, 40 um, metal basis
*Al , 99.9%, 100nm, metal basis	C Carbon Black & Nanotube Mixed	*Cu , 99.9%, 90-250 nm, metal basis	*Ni , 99.9%, 800 nm, metal basis
*Al , 99.9%, 70nm, metal basis	C Conductive Carbon Black,150nm (Plant)	*Cu , 99.9%, 100nm, metal basis	*Ni , 99.9%, 100 nm, metal basis

*Ni, 99.9%, 70 nm, metal basis	S, 47nm, high purity 99.99%	Ni-Ti 30-120 nm, Ni:Ti/50:50	Ag-Sn Nanopowder, 99.9%, <100nm
*Ni, 99.9%, 40 nm, metal basis	*Ta, High purity, 99.99%, 50-80 nm	Sn-Cu 40-100 nm, Sn:Cu/9:1	Ni-Cr-Co Nanopowder, 99.9% <100nm
*Ni, 99.9%, 20nm, partially passivated	*Ti, 99.9%, 70nm, metal basis	Sn-Cu 40-100 nm, Sn:Cu/1:9	Al-Si Nanopowder, 99.9% <100nm
*Ni, 99.9%, 20nm, carbon coated	*Ti, 99.9%, 30-50nm, metal basis	Sn-Cu 40-100 nm, Sn:Cu/92:8	Cu-Ni Nano Alloy Powder
Si, 99.9%, 1-3 um, Polycrystalline	*W, 99.9%, 800 nm, metal basis	Fe-Ni-Co 40-100nm, Fe:Ni:Co/55:28:17	Cu-In Nano Alloy Powder
Si, 99+%,100nm,Nanopowder&Nanowire	*W, 99.95+%, 70 nm, metal basis	Fe-Ni 40-100 nm, Fe:Ni/5:5	Ag-In Nano Alloy Powder
Si, 98+%, <80 nm, Laser Synthesized	*W, 99.95+%, 40-60 nm, metal basis	Fe-Ni 40-100 nm, Fe:Ni/2:8	Cu-In-Ga Nano Alloy Powder
Si, 98+%, 50-70 nm, Laser Synthesized	*Zn, 99.9%, 800 nm	Fe-Cr-Co 40-100nm, Fe:Cr:Co/64:25:11	Cu-In-S Nano Alloy Powder
Si, 98+%, 30-50 nm, Laser Synthesized	*Zn, high purity, 99.99+%, 95-105 nm	Cu-Zn 40-100 nm, Cu:Zn/5:5	
Si, 98+%, 20-30 nm, Laser Synthesized	*Zn, high purity, 99.99+%, 65-75 nm	Cu-Zn 40-100 nm, Cu:Zn/6:4	
Sn, 99.99%, 60-80nm, metal basis	*Zn, high purity, 99.99+%, 35-45 nm	Ag-Cu Nanopowder, 99.9%, <100nm	

Single-Element Oxides

Al ₂ O ₃ , alpha, 99+%, 80nm	CoO, 99.7%, 50nm	Cu ₂ O, 99.86%, 18nm	Fe ₃ O ₄ , high purity, 99.5+%, 15-20nm
Al ₂ O ₃ , alpha, 99.9% 135nm	Co ₂ O ₃ , 99.7%, 50nm	Dy ₂ O ₃ , 99.9+%, high purity, 30nm	Fe ₃ O ₄ , 98+%, 20-30nm
Al ₂ O ₃ , alpha, 60nm, SuperHydrophobic	Co ₃ O ₄ , high purity, >99.5%, 30-50nm	Er ₂ O ₃ , 99.9%, 10-100nm, Cubic	Gd ₂ O ₃ , 99.9%, 10-100nm, Cubic
Al ₂ O ₃ , gamma, 99+%, 20nm	Co ₃ O ₄ , 99%, 10-30nm	Eu ₂ O ₃ , 99.99%, 10-100nm, Cubic	HfO ₂ , 99.99%, high purity, 61-80nm
Al ₂ O ₃ , gamma high purity 99.5% 80nm	Cr ₂ O ₃ , 99+%, 60nm	Fe ₂ O ₃ , alpha,high purity,99.5+%,30nm	In ₂ O ₃ , high purity, 99.995%, 20-70nm
Al(OH) ₃ , 99.9%,10-20nm, Hydrophilic	CuO, high purity, 99.95+%, 25-55nm	Fe ₂ O ₃ , alpha, 98+%, 20-40nm	In(OH) ₃ , high purity, 99.99%, 20-70nm
Bi ₂ O ₃ , 99.9%, 80-200nm	CuO, 99%, <80nm	Fe ₂ O ₃ , gamma highpurity 99.5+%20nm	La ₂ O ₃ , 99.99%, <200nm
CeO ₂ , 99.97%, 10-30nm	CuO, 99%, 40nm	Fe ₂ O ₃ , gamma, 99%, 20-40nm	La ₂ O ₃ , 99.99%, 10-100nm

MgO , 99+%, 100nm	Pr6O11 , 99.9%, 10-100nm	TiO2 , anatase, high purity, 99.98% 30nm	Y2O3 , High purity, 99.999%, 20-40nm
MgO , 99+%, 60nm	*Sb2O3 , 99.9%, 80-200nm	TiO2 , anatase, doped with 5.8wt% W	Y2O3 , 99.99%, 30-45nm
MgO , high purity, 99.95%, 50nm	SiO2 , 99.5+%, Nonporous, 15-20nm	TiO2 , anatase/rutile, 99+%, 20nm	ZnO , 99.9+%, 80-200nm
MgO , 99+%, 40nm	SiO2 , 99.5+%, Porous, 15-20nm	TiO2 , rutile, high purity, 99.9+%, 30nm	ZnO , 99+%, 35-45nm
MgO , 99+%, 20nm	SiO2 , 98+%, 60-70nm	TiO2 , rutile, high purity, 99.9+%, 50nm	ZnO , 99+%, 10-30nm
Mg(OH)2 , 99%, 10nm	SiO2 , 99+%, 20-30nm	TiO2 , rutile high purity, 99.9+%, 100nm	ZnO , high purity, 99.95%, 18nm
MgCO3 , 10nm, 99.5%	SiO2 , 20-30nm, KH570 coated	TiO2 , rutile, high purity, 99.9%, 165nm	ZnO Doped with 2wt% Al2O3
MoO3 , 99.94+%, high purity, 13-80nm	SiO2 , 20-30nm, KH550 coated	TiO2 , rutile 30nm, Si coated	ZnO , 99+%, 20nm, Coated with KH550
Mn2O3 , 99.2%, 30nm	SiO2 , 15nm, Silane coated	TiO2 , rutile 30nm, Si&Al coated	ZnCO3 , 20nm, 99.5%
Nd2O3 , 99.9%, 30-45nm	Sm2O3 , 99.95%, 15-45nm	TiO2 , rutile 30nm, Si Oil coated	ZrO2 , high purity, 99.95%, 20nm
Ni(OH)2 , 99.98%, 18nm	SnO2 , 99.7%, 35-55nm	TiO2 rutile Al, Si, Stearic Acid Coated	ZrO2 , 99+%, 40nm
NiO , 99.98%, 18nm, Cubic	SnO2 , 99.99%, 18nm	TiO2 rutile (90wt%)-CNTs (10wt%)	ZrO2-3Y , 99.9%, 40nm
NiO , high purity, 99.5+%, 15-35nm	SnO2 , 99.9%, 450nm	TiO2 rutile (80wt%)-CNTs (20wt%)	ZrO2-8Y , 99.9%, 40nm
NiO , 99%, 10-20nm	Tb4O7 , 99.99%, 10-100nm, Cubic	WO3 , 99.9%, 60nm	Zr(OH)4 , 99.9%, 40nm, Amorphous
Pr6O11 , 99.9%, 15-55nm	TiO2 , anatase, 99+%, 10-25nm	WO3 , 99.95%, high purity, 23-65nm	

Multi-Element Oxides

ATO , 30nm, 99.95+%	BaTiO3 , 99.9%, 500nm, Tetragonal	BaTiO3 , 99.9% 100nm Cubic	ITO , 90:10, 99.99+%, 20-70nm
AZO , 15nm, high purity 99.99%	BaTiO3 , 99.9%, 400nm, Tetragonal	BaTiO3 , 99.9%, 50nm, Cubic	ITO , 95:5, 99.99+%, 20-70nm
BaFe12O19 , 99.5%, 60nm	BaTiO3 , 99.9%, 300nm, Tetragonal	BaSO4 , Super Grade, 99.5%, 3um	MnFe2O4 , 98.5%, 60nm
BaCO3 , 99.8%, 800nm	BaTiO3 , 99.9%, 200nm, Tetragonal	CoFe2O4 , high purity 99.9%, 30nm	MnFe2O4 , 99.99%, 28nm

MgCO₃ , 10nm, 99.5%	Ni_{0.5}Co_{0.5}Fe₂O₄ , 99.995%, 40nm	Y₃Al₅O₁₂ ,YAG,99.5%,30nm	ZnCO₃ , 20nm, 99.5%
NiFe₂O₄ , 98%, 30nm	SrFe₁₂O₁₉ , 99.5%, 60nm	ZnFe₂O₄ , 98.5%,10- 30nm	
NiFe₂O₄ , 99.99%, 20nm	SrTiO₃ , 99.95%, 100nm, Cubic	Zn_{0.5}Co_{0.5} Fe₂O₄ , 99.995%, 40nm	
Ni_{0.5}Zn_{0.5}Fe₂O₄ , 99.995%, 10-30nm	SrCO₃ , 800nm, 99.5%	Zn_{0.5}Mn_{0.5} Fe₂O₄ , 99.995%,30-60nm	

Compounds

*AlN , 99.5%, 800nm, Hexagonal	LaF₃ , highly dispersible, 20-60nm	Si₃N₄ , Amorph. 99%,15-30nm	*VC , 99.9%, 600-800 nm, Cubic
*AlN , 99.5%, 65-75nm, Hexagonal	Mo₂C , 99.9%,2.5um, Hexagonal	Si₃N₄ , Alpha, 99.6%, 400-1200nm	WC , High purity, 99.95%, 30-100 nm
BN , 99.8%, 800nm, Hexagonal	MoS₂ , 99.9%, 135nm, Black	Si₃N₄ , Beta, 99.6%, 400-1200nm	WC , 99.9%, 55nm
BN , 99.8+%, 70-80nm, Hexagonal	MoSi₂ , 99.9%, 1-3um	*TaC , 99+%, 1000 nm, Cubic	WC/Co-5wt% , 40-80 nm, 99.9%
B₄C , 99.9%, 1-3um	NbC , 99.9%, 1-3 um	TiB₂ , 98+%, 2-12 um	WS₂ , 99.9+%, 40-80 nm
B₄C , 99+%, 45-55nm, Hexagonal	SiC , Beta, 99+%, whisker	TiB₂ , 95+%, 58 nm	ZrB₂ , 99%, 5 um, Hexagonal
*Cr₃C₂ , 99.7+%, 30-120nm	SiC , Beta, 99+%, D50 1-40um	*TiC , 99.9%, 800nm, Cubic	ZrB₂ , 99%, 43 nm, Hexagonal
CrN , 99.9%, 1-3um	SiC , Beta, 99+%, 800nm	*TiC , 99+%, 40-60 nm, Cubic	*ZrC , 99.9%, 400-1200 nm, Cubic
HfC , 99.9%, 800nm, Cubic	SiC , Beta, 99+%, <80nm	*TiN , 99.2+%, 800 nm, Cubic	*ZrC , 99+%, 20 nm, Cubic
LaB₆ , high purity, 99.9%, 1-20um	SiC , Beta, 99+%, 45-65nm	*TiN , 99.2+%, 20 nm, Cubic	ZrN , 99.9%, 3 um, Cubic

Functionalized Nanoproducts

Ag-Doped Antibacterial Nanopowder	Far-infrared Nanopowder	CNTs (20wt%)-TiO ₂	CNTs (20wt%)-HDPE
Negative Ion Nanopowder	Wear-resistant Nanopowder	CNTs (33.3wt%)-Black Carbon	CNTs (20wt%)-LLDPE
Antistatic Nanopowder	CNTs (10wt%)-Mica	CNTs (20wt%)-Polystyrene Microspheres	CNTs (20wt%)-HIPS
UV Shielding Nanopowder	CNTs (10wt%)-TiO ₂	CNTs (20wt%)-PP	

(4) Nanopowders Nanoparticles Dispersions

Oxide Nanoparticles and Metal Nanoparticles aqueous dispersions are widely used in information technology and telecommunications, micro-electronics, cosmetics, organic chemicals, chemicals, plastics, paints, coatings, textile, rubber, batteries, etc. We can guarantee our products with the best quality and the best reasonable price.

➤ Product List

Item	
Al₂O₃ in Water, alpha, 20 wt%, 30 nm	SiO₂ in 1, 2-Propanediol, Amorphous, 25wt%, 25nm
Al₂O₃ in Water, gamma, 20 wt%, 10 nm	SiO₂ in Ethylene Glycol, Amorphous, 25wt%, 25nm
Al₂O₃ in Water, gamma, 20 wt%, 30 nm	S in Water, 10wt%, 47nm, Milky White Color
Al₂O₃ in 2-Propanol, gamma, 10wt%, 15nm	ZnO in Water, 20 wt%, 30-40 nm
Al₂O₃ in 1, 2-Propanediol, gamma, 20wt%, 15nm	ZnO in Water, 20 wt%, 50-80 nm
Al₂O₃ in Ethylene Glycol, gamma, 20wt%, 15nm	ZrO₂ in Water (ZrO ₂ , 20 wt%, 45-55 nm
ATO in Water, SnO ₂ :Sb ₂ O ₃ =90:10, 20 wt%, 20-80nm	Fe₂O₃ in Water, alpha, 20 wt%, 20-100 nm
AZO in Water, ZnO:Al ₂ O ₃ =98:2, 20wt%, 15nm, AZO purity 99.99+%	TiO₂ in Water, Rutile, 15 wt%, 5-15 nm
ITO in Water, In ₂ O ₃ :SnO ₂ =90wt%:10wt%, 18nm, 20wt%, Blue Color	TiO₂ in Water, Rutile, 15 wt%, 5-30 nm
CeO₂ in Water, 20 wt%, 30-50 nm	TiO₂ in Water, Rutile, 20 wt%, 30-50 nm
CeO₂ in Water, 40 wt%, 30-50 nm	TiO₂ in Water, Anatase, 40 wt%, 30-50 nm
Loess Dispersion in Water, 10wt%, 18nm, Yellow Color	TiO₂ in Water, Anatase, 15 wt%, 5-15 nm
LaF₃ , highly self-dispersible dry powder, 20-60nm, coated by 10% saturated alkyl	TiO₂ in Water, Anatase, 15 wt%, 5-30 nm
SiO₂ in Water, amorphous, 25 wt%, 5-35 nm	TiO₂ in Water, Anatase, 15 wt%, 30-50 nm
SiO₂ in Water, amorphous, 25 wt%, 30 nm	TiO₂ in 2-Propanol, Anatase, 20wt%, 15nm
SiO₂ in 2-Propanol, Amorphous, 15wt%, 25nm	TiO₂ in 1, 2-Propanediol, Anatase, 20wt%, 15nm

TiO2 in Ethylene Glycol, Anatase, 20wt%, 15nm	Pt in Water, 3 nm, 1,000ppm, Black Color
Ag in Water, 2 nm, 200ppm, Colorless and Transparent	C Single Layer Graphene Oxide Water Dispersion
Ag in Water, 2 nm, 2,000ppm, Colorless and Transparent	C MWCNTs Water Dispersion (3wt%, >95+%, OD: 5-15 nm, Length 50um)
Ag in Water, 15nm, 1,000ppm, Tawny, Mono Nanopowder	C MWCNTs Water Dispersion (3wt%, >95%, OD: 20-30 nm, Length 10-30um)
Ag in Water, 15 nm, 50,000ppm, Tawny, Mono Nanopowder	C MWCNTs Water Dispersion (3wt%, >95%, OD: 50-80 nm, Length 10-20um)
Au in Water, 14 nm, 1,000 ppm, Purple Color	C , Conductive Carbon Black Nanoparticles Dispersion (C, 150 nm, 35wt%)

(5) Carbon Nanotubes/Carbon Nanofiber

➤ Product List

Single-Walled Carbon Nanotubes (SWNTs)

SWNTs, >90%	SWNTs, >90%, -OH	SWNTs, >90%, -COOH
Short SWNTs, >90%	Short SWNTs, >90%, -OH	Short SWNTs, >90%, -COOH
SWNTs, >60%	SWNTs, >60%, -OH	SWNTs, >60%, -COOH
Short SWNTs, >60%	Short SWNTs, >60%, -OH	Short SWNTs, >60%, -COOH

Double-Walled Carbon Nanotubes (DWNTs)

DWNTs, >60%	DWNTs, >60%, -OH	DWNTs, >60%, -COOH
Short DWNTs, >60%	Short DWNTs, >60%, -OH	Short DWNTs, >60%, -COOH

Multi-Walled Carbon Nanotubes (MWNTs)

MWNTs, >95%, OD: <7nm	MWNTs, >95%, OD: <7nm, -OH	MWNTs, >95%, OD: <7nm, -COOH
MWNTs, >95%, OD: 5-15nm	MWNTs, >95%, OD: 5-15nm, -OH	MWNTs, >95%, OD: 5-15nm, -COOH
MWNTs, >95%, OD: 10-20nm	MWNTs, >95%, OD: 10-20nm, -OH	MWNTs, >95%, OD: 10-20nm, -COOH
MWNTs, >95%, OD: 20-30nm	MWNTs, >95%, OD: 20-30nm, -OH	MWNTs, >95%, OD: 20-30nm, -COOH
MWNTs, >95%, OD: 30-50nm	MWNTs, >95%, OD: 30-50nm, -OH	MWNTs, >95%, OD: 30-50nm, -COOH
MWNTs, >95%, OD: 50-80nm	MWNTs, >95%, OD: 50-80nm, -OH	MWNTs, >95%, OD: 50-80nm, -COOH

Short Length Multi-Walled Carbon Nanotubes (MWNTs)

Short MWNTs, >95%, OD: <7nm	Short MWNTs, >95%, OD: <7nm, -OH	Short MWNTs, >95%, OD: <7nm, -COOH
Short MWNTs, >95%, OD: 5-15nm	Short MWNTs, >95%, OD: 5-15nm, -OH	Short MWNTs, >95%, OD: 5-15nm, -COOH
Short MWNTs, >95%, OD: 10-20nm	Short MWNTs, >95%, OD: 10-20nm, -OH	Short MWNTs, >95%, OD: 10-20nm, -COOH
Short MWNTs, >95%, OD: 20-30nm	Short MWNTs, >95%, OD: 20-30nm, -OH	Short MWNTs, >95%, OD: 20-30nm, -COOH
Short MWNTs, >95%, OD: 30-50nm	Short MWNTs, >95%, OD: 30-50nm, -OH	Short MWNTs, >95%, OD: 30-50nm, -COOH
Short MWNTs, >95%, OD: 50-80nm	Short MWNTs, >95%, OD: 50-80nm, -OH	Short MWNTs, >95%, OD: 50-80nm, -COOH

Graphitized Multi-Walled Carbon Nanotubes (MWNTs)

Graphitized MWNTs, >99.9%, OD:5 -15nm	Graphitized MWNTs, >99.9%, OD: 5-15nm, -OH	Graphitized MWNTs, >99.9%, OD: 5-15nm, -COOH
Graphitized MWNTs, >99.9%, OD:10-20nm	Graphitized MWNTs, >99.9%, OD: 10-20nm,-OH	Graphitized MWNTs, >99.9%, OD: 10-20nm,-COOH
Graphitized MWNTs, >99.9%, OD:20-30nm	Graphitized MWNTs, >99.9%, OD: 20-30nm,-OH	Graphitized MWNTs, >99.9%, OD: 20-30nm,-COOH
Graphitized MWNTs, >99.9%, OD:30-50nm	Graphitized MWNTs, >99.9%, OD: 30-50nm,-OH	Graphitized MWNTs, >99.9%, OD: 30-50nm,-COOH
Graphitized MWNTs, >99.9%, OD:50-80nm	Graphitized MWNTs, >99.9%, OD: 50-80nm,-OH	Graphitized MWNTs, >99.9%, OD: 50-80nm,-COOH

Industrial Multi-Walled Carbon Nanotubes (MWNTs)

Industrial MWNTs, >90%, OD: 10-30nm	Industrial MWNTs, >90%, OD: 10-30nm, -OH	Industrial MWNTs, >90%, OD: 10-30nm, -COOH
Industrial MWNTs, >90%, OD: 20-40nm	Industrial MWNTs, >90%, OD: 20-40nm, -OH	Industrial MWNTs, >90%, OD: 20-40nm, -COOH
Industrial MWNTs, >90%, OD: 50-80nm	Industrial MWNTs, >90%, OD: 50-80nm, -OH	Industrial MWNTs, >90%, OD: 50-80nm, -COOH

Nickel-Coated Multi-Walled Carbon Nanotubes (MWNTs)

Nickel-Coated MWNTs, >98%, OD: 5-15nm	Nickel-Coated MWNTs, >98%, OD: 30-50nm
Nickel-Coated MWNTs, >98%, OD: 10-20nm	Nickel-Coated MWNTs, >98%, OD: 50-80nm
Nickel-Coated MWNTs, >98%, OD: 20-30nm	

Aligned Multi-Walled Carbon Nanotubes (MWNTs)

Carbon Nanofibers

Aligned MWNTs, >95%, OD: 10-20nm, Length: 5-15um	Carbon NanoFibers, Purity: >95%, OD: 200-600nm
Aligned MWNTs, >95%, OD: 10-20nm, Length: 30-100um	Graphitized Carbon NanoFibers, Purity: >99.9%, OD: 200-600nm

Special Carbon Nanotubes (CNTs)

SWNTs, >95%, Ignited Temperature>610 °C
Large Inner Diameter Thin Multi-Wall Carbon Nanotubes, Purity: >90%, OD: 30-60nm, ID: 20-50nm
Flash-Ignited Multi-Walled Carbon Nanotubes, Purity: >50%, OD: 2-50nm
Helical Multi-Walled Carbon Nanotubes, OD: 80-180nm, Length: 1-13um
MWCNTs-NH ₂ (Multi-Walled Carbon Nanotubes Modified by Amino)
Carbon NanoFibers, Purity: >95%, OD: 200-600nm
Graphitized Carbon NanoFibers, Purity: >99.9%, OD: 200-600nm
CNTs-based Conductive Additives for Lithium Ion Battery
Carbon Nanotube(10wt%)-Mica(90wt%) Prepared by Electrostatic Adsorption
Carbon Nanotube(10wt%)-TiO ₂ (90wt%) Prepared by Electrostatic Adsorption

Carbon Nanotube(20wt%)-TiO ₂ (80wt%) Prepared by Electrostatic Adsorption
Carbon Nanotube(33.3wt%)-Black Carbon(66.7wt%) Prepared by Electrostatic Adsorption
Carbon Nanotube(20wt%)-Polystyrene Microspheres(80wt%) Prepared by Electrostatic Adsorption
CNTs-Polypropylene Resin Matrix (CNTs: 20wt%, Polypropylene: 80wt%)
CNTS-High Density Polyethylene Resin Matrix (CNTs: 20wt%, HDPE: 80wt%)
CNTs-Linear Low Density Polyethylene Resin Matrix (CNTs: 20wt%, LLDPE: 80wt%)
CNTs-High Impact Polystyrene Resin Matrix (CNTs: 20wt%, HIPS: 80wt%)