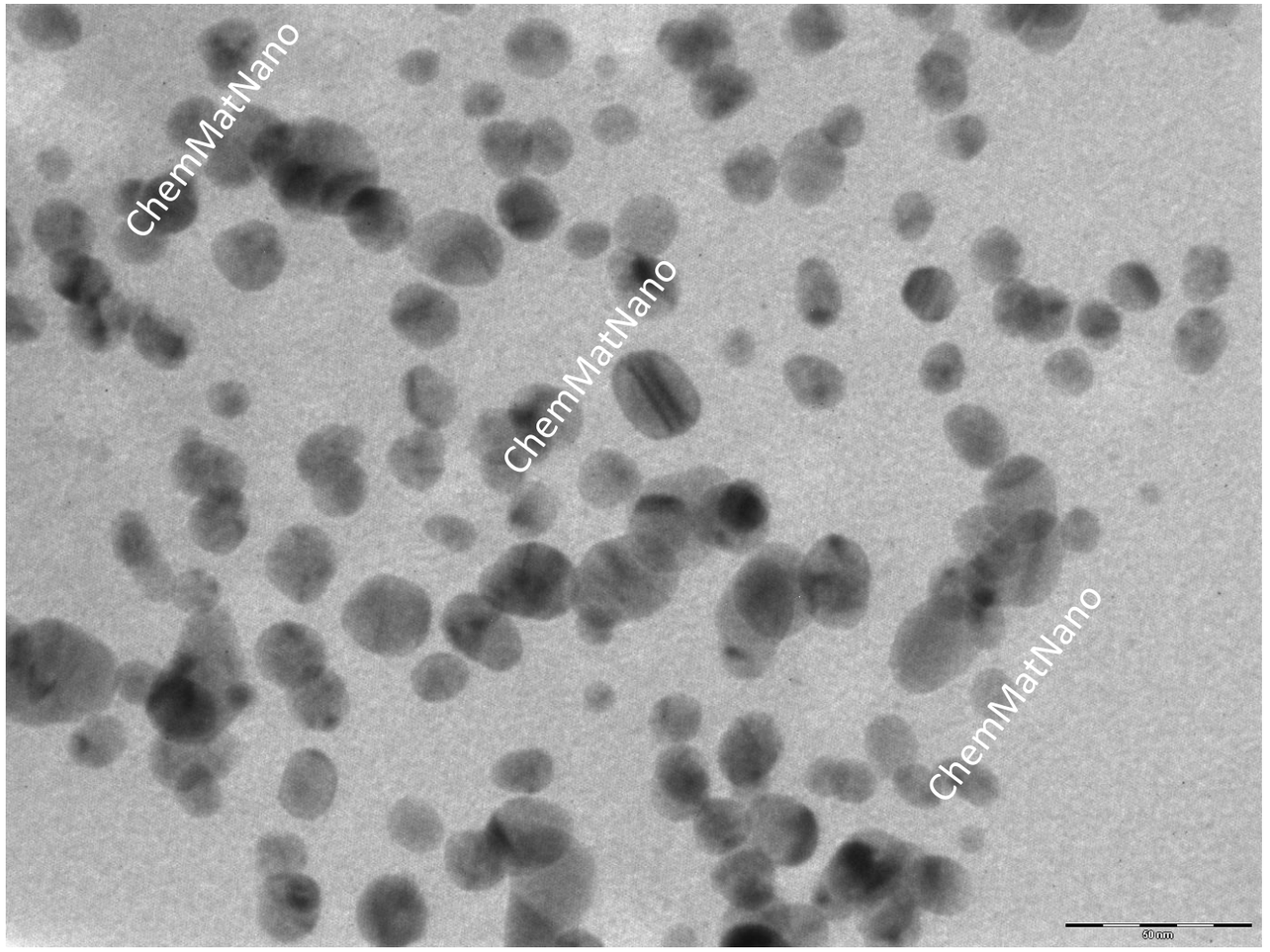
Silver (Ag) Nanoparticles

Product Specification

Product Name	**Silver (Ag) Nanoparticles**
Particle Size	**Silver (Ag) Nanoparticles , <50 nm particle size (TEM), Purity >99%**
CAS Number	**7440-22-4**
Product Number	**CMN-01**
Molecular formula	**Ag**
Molecular weight	**107.87**
Form	**Powder**
Solubility	**Insoluble in water**

TEM Image



Applications: Silver (Ag) nanoparticles can be used for the following applications such as Antimicrobial Agents, Catalysis, Electronics, Optical Devices, Textiles, Water Purification, Photovoltaics, Drug Delivery, Food Packaging, and Cosmetics.

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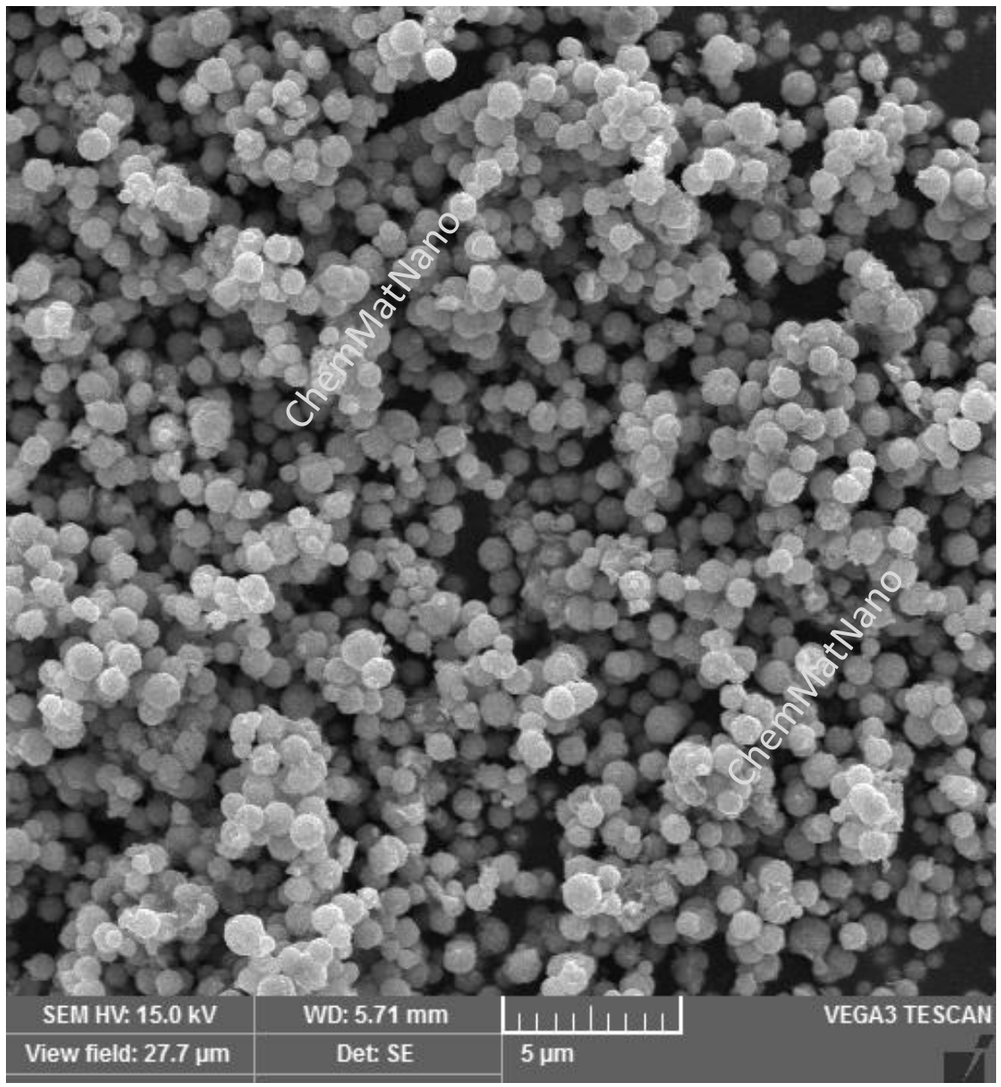
Copper (Cu) Nanoparticles

Product Specification

Product Name	**Copper (Cu) Nanoparticles**
Particle Size	**Copper (Cu) Nanoparticles , <50 nm particle size (TEM), Purity >99%**
CAS Number	**7440-50-8**
Product Number	**CMN-02**
Molecular formula	**Cu**
Molecular weight	**63.55**
Form	**Powder**
Solubility	**Insoluble in water**

SEM Image



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Applications: Copper (Cu) nanoparticles can be used for the following applications such as Antimicrobial Coatings, Catalysis, Conductive Inks and Coatings, Biomedical Imaging, Drug Delivery, Catalytic Gas Sensing, Energy Storage, Textiles, Water Treatment, Aerospace, Automotive, and Construction industries.

Nickel (Ni) Nanoparticles

Product Specification

Product Name	**Nickel (Ni) Nanoparticles**
Particle Size	**Nickel (Ni) , <50 nm particle size (TEM), Purity >99%**
CAS Number	**7440-02-0**
Product Number	**CMN-03**
Molecular formula	**Ni**
Molecular weight	**58.69**
Form	**Powder**
Solubility	**Insoluble in water**

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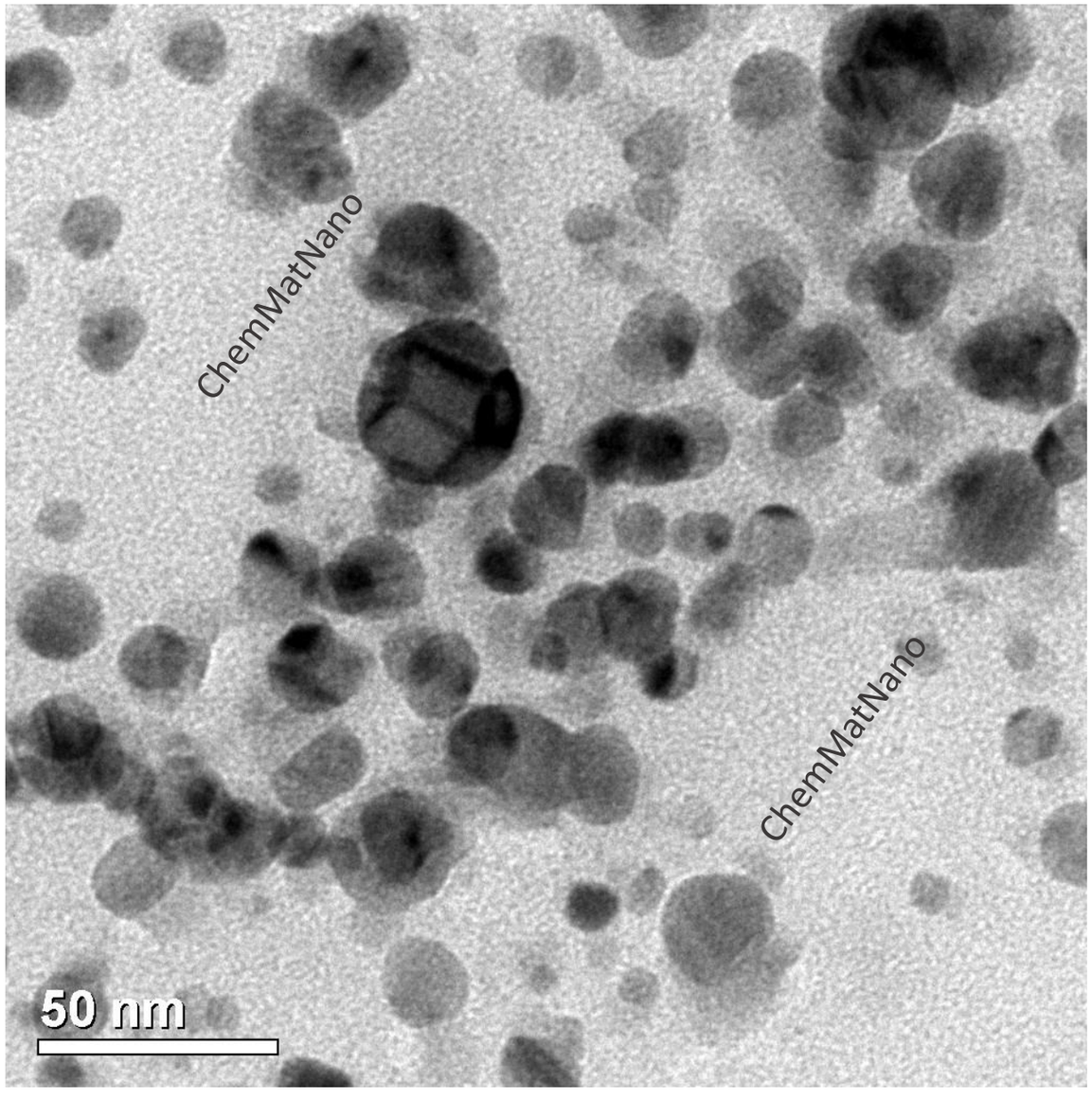
TEM Image



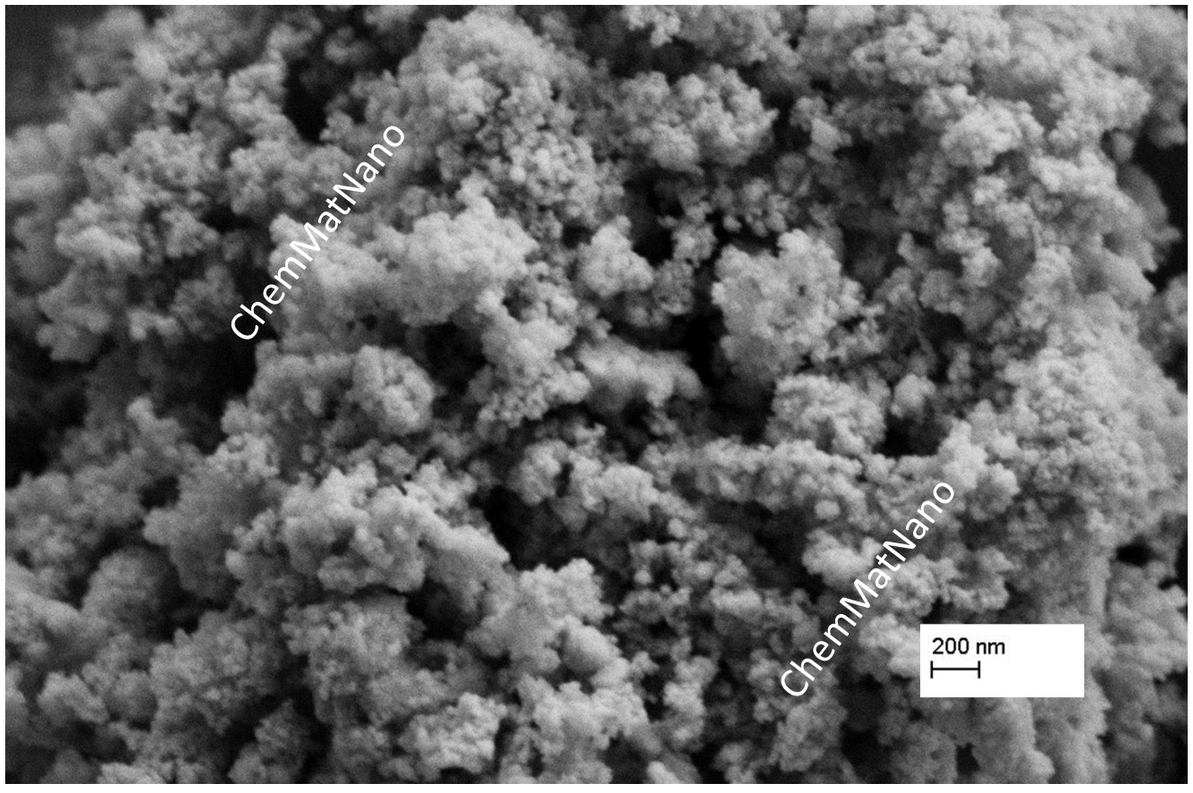
Application: Nickel (Ni) nanoparticles can be used for the following applications such as Catalysis, Magnetic Materials, Electronics, Battery Technology, Cancer Therapy, Catalytic Gas Sensing, Hydrogen Storage, Surface Coatings, Biomedical Imaging, Catalytic Converters.

Silver- Copper Nanoparticles (Ag-Cu)

Product Specification

Product Name	**Silver- Copper Alloy Nanoparticles (Ag-Cu)**
Particle Size	**Silver- Copper Alloy (Ag-Cu) Nanoparticles, <50 nm particle size (TEM), Purity >99%**
CAS Number	**11144-43-7**
Product Number	**CMN-04**
Molecular formula	**Ag-Cu**
Molecular weight	**171.42**
Form	**Powder**
Solubility	**Insoluble in water**

SEM Image



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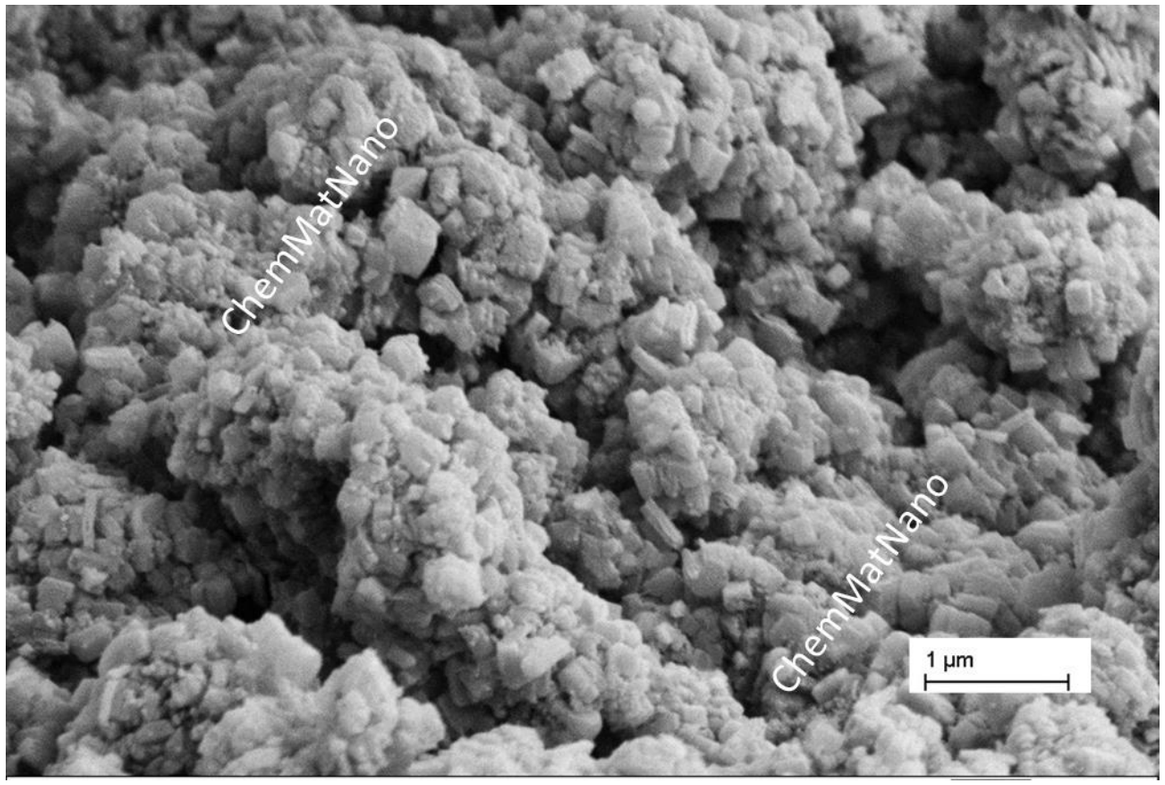
Application: Silver-copper nanoparticles forge conductive pathways in adhesives and polymer slurries, create antimicrobial coatings for medical devices and water purification, catalyze chemical reactions for fuel cells and pollution control, sense environmental changes for diagnostics and food safety, and even boost solar cell efficiency, demonstrating their diverse impact across electronics, healthcare, energy, and sensing.

Silver- Nickel Alloy Nanoparticles (Ag-Ni)

Product Specification

Product Name	**Silver- Nickel (Ag-Ni) Alloy Nanoparticles**
Particle Size	**Silver- Nickel (Ag-Ni) Alloy Nanoparticles, <50 nm particle size (TEM), Purity >99%**
CAS Number	**7440-22-4/7440-02-0**
Product Number	**CMN-05**
Molecular formula	**Ag-Ni**
Molecular weight	**166.56**
Form	**Powder**
Solubility	**Insoluble in water**

SEM Image



Application: Silver-nickel alloy nanoparticles can be used catalyzing chemical reactions, battling microbes in healthcare and water purification, boosting conductivity in electronics, and forging novel magnetic materials, showcasing their diverse potential across catalysis, antimicrobials, electronics, and magnetics.

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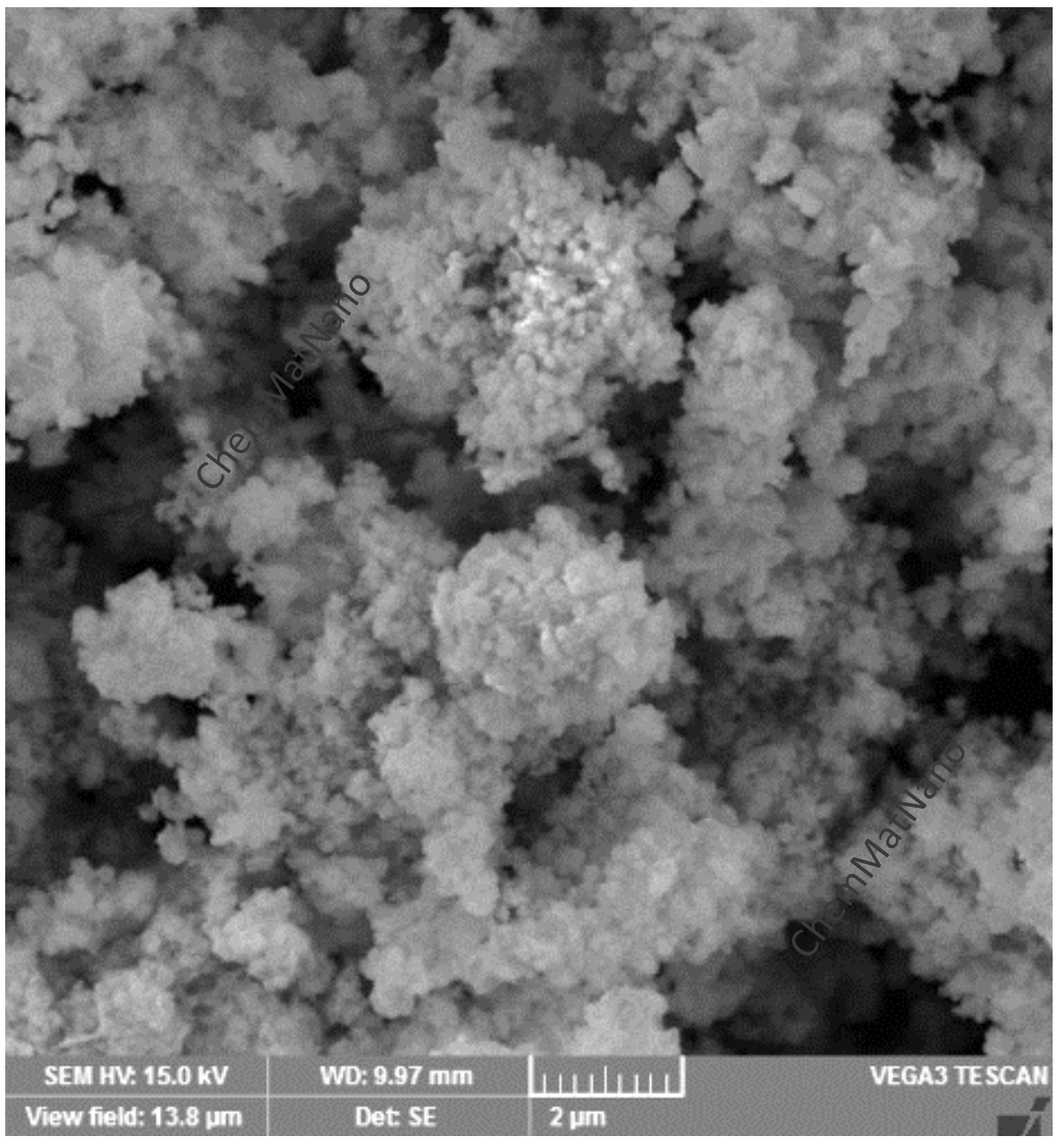
Copper-Nickel Nanoparticles (Cu-Ni)

Product Specification

Product Name	**Copper- Nickel (Ni-Cu) Nanoparticles**
Particle Size	**Copper- Nickel (Ni-Cu) Nanoparticles<50 nm particle size (TEM), Purity >99%**
CAS Number	**-**
Product Number	**CMN-06**
Molecular formula	**Cu-Ni**
Molecular weight	**122.24**
Form	**Powder**
Solubility	**Insoluble in water**

SEM Image



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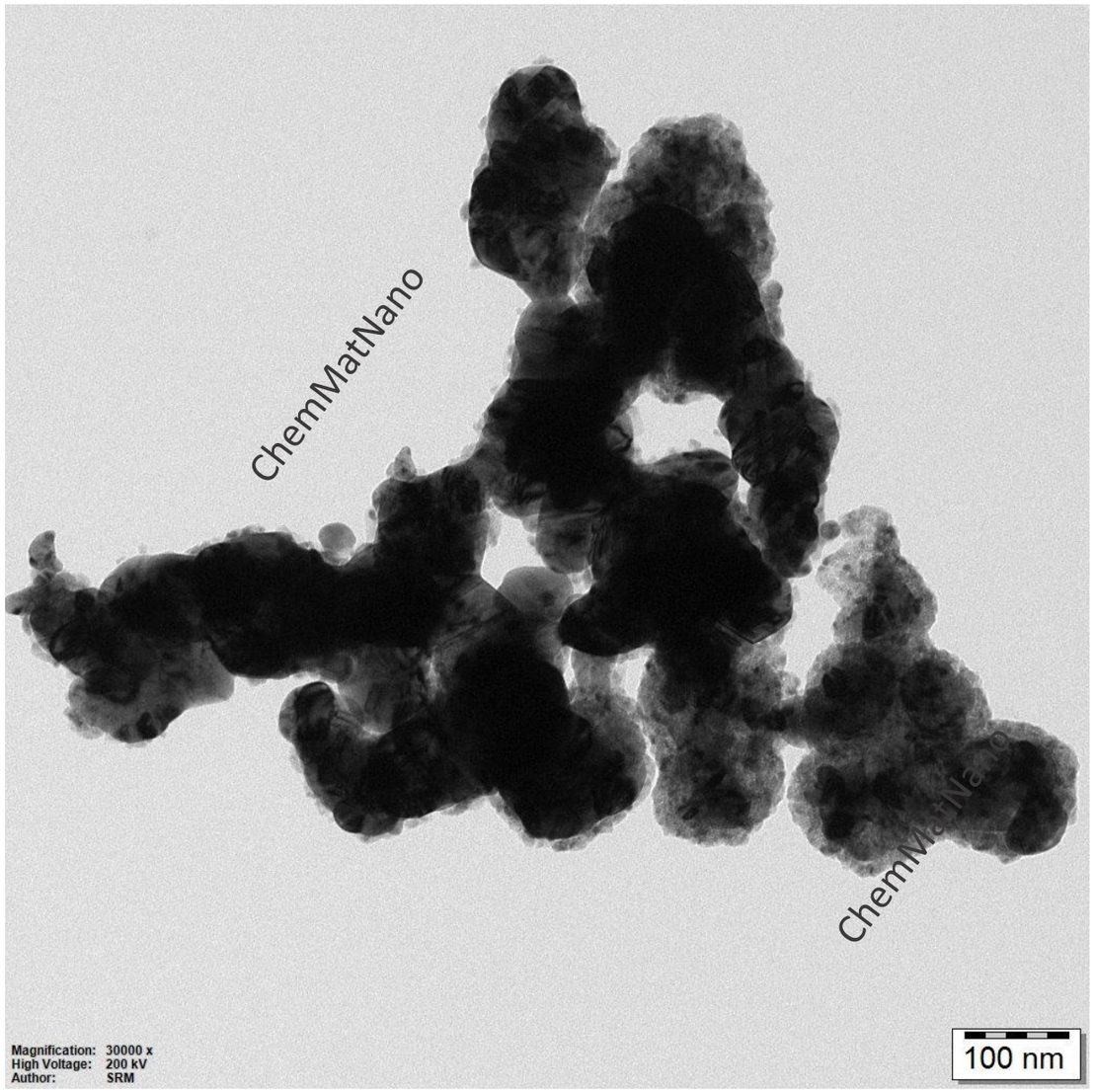
Application: Copper-nickel nanoparticles prevent corrosion in marine and desalination systems, enhance conductivity in electrodes, capacitors, and heat sinks, and even explore potential antimicrobial roles in wound healing and coatings, showcasing their versatility across marine, electrical, and biomedical fields..

Silver- Copper- Nickel Nanoparticles (Ag-Cu-Ni)

Product Specification

Product Name	**Silver- Copper- Nickel (Ag-Cu-Ni) Nanoparticles**
Particle Size	**Silver- Copper- Nickel (Ag-Cu-Ni) Nanoparticles, <50 nm particle size (TEM), Purity >99%**
CAS Number	**7440-22-4**
Product Number	**CMN-07**
Molecular formula	**Ag-Cu-Ni**
Molecular weight	**230.11**
Form	**Powder**
Solubility	**Insoluble in water**

TEM Image



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Application: Silver-copper-nickel nanoparticles can be used for next-generation superconductors, combat microbes in wound healing and water purification, accelerate chemical reactions as catalysts, boost solar cell efficiency, and create ultra-sensitive biosensors, showcasing their remarkable versatility across materials science, energy, healthcare, and sensing..

Reduced graphene oxide (Graphene)

Product Specification

Product Name	**Reduced graphene oxide (Graphene)**
Thickness	**Reduced graphene oxide (Graphene), thickness (1-2nm) width few microns ,Purity >99%**
CAS Number	**7440-22-4**
Product Number	**CMN-08**
Molecular formula	**C**
Molecular weight	**12.01**
Form	**Powder**
Solubility	**Insoluble in water**

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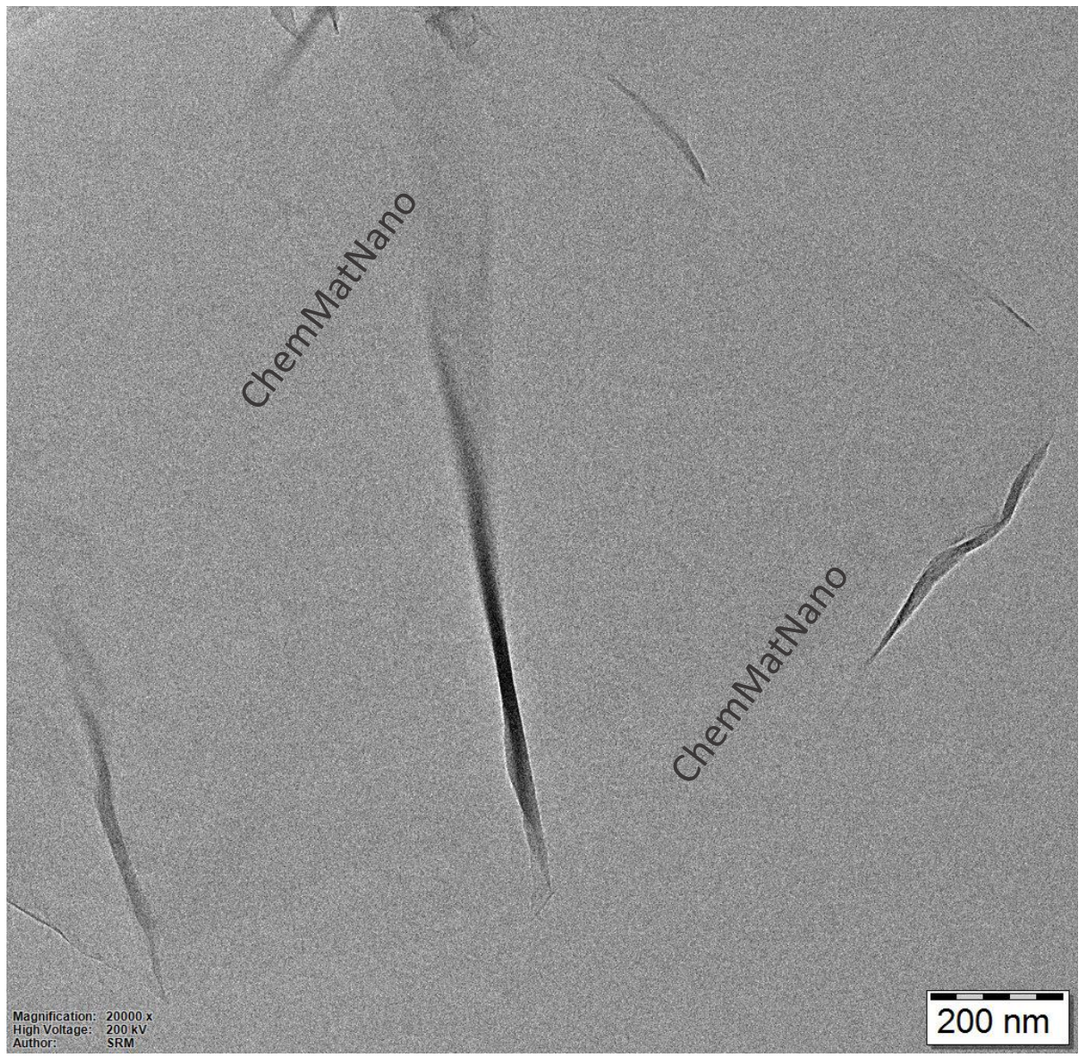
TEM Image



Applications: Reduced Graphene Oxide (rGO) has various applications across different industries due to its exceptional properties. Here's a brief overview of some key applications: Energy Storage, Electronics, Sensors, Biomedical Devices, Biosensors, Water Purification, Membranes, Flexible Electronics, Thermal Management, Photodetectors and Photovoltaics, Photodetectors, Solar Cells, Catalysis, Catalyst Support, Corrosion Protection.

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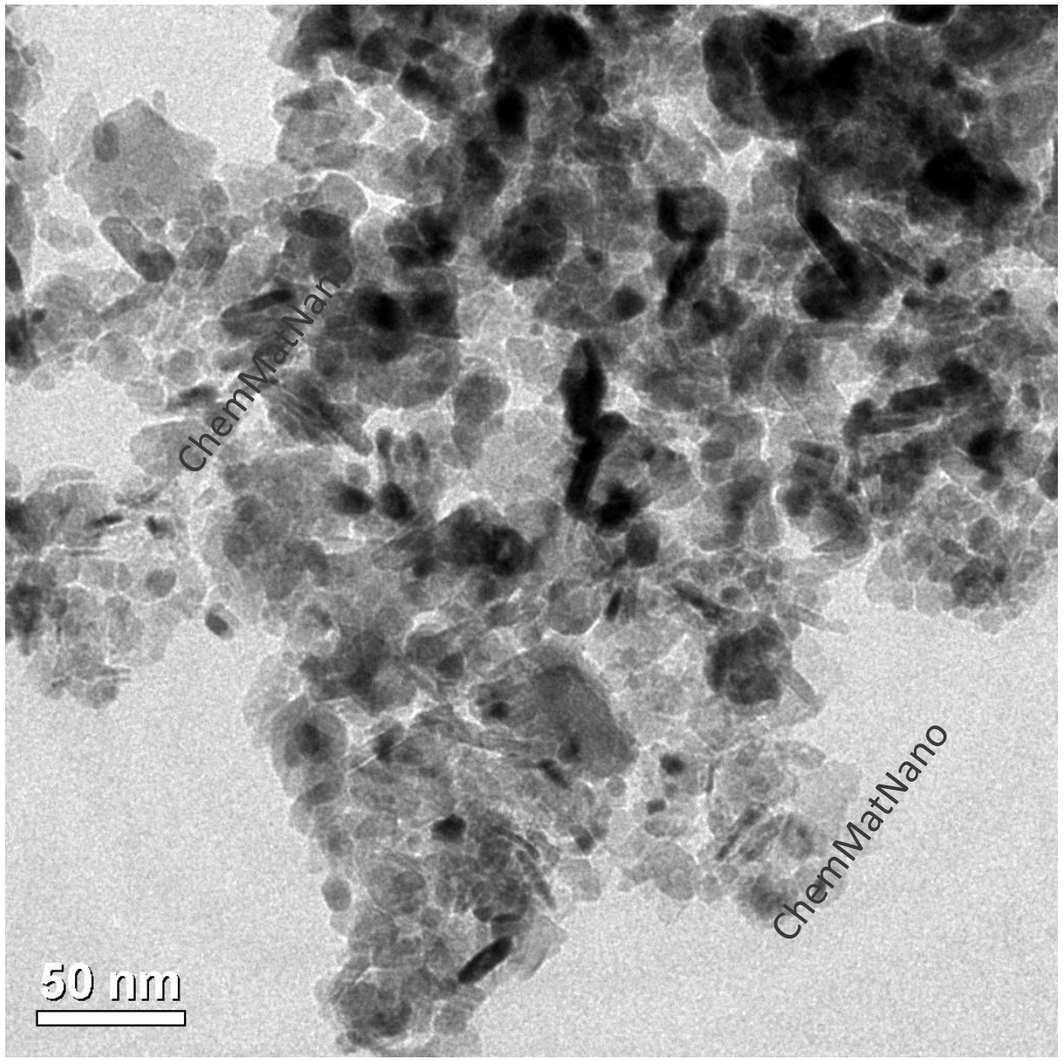
Nickel oxide (NiO) Nanoparticles

Product Specification

Product Name	**Nickel oxide (NiO) Nanoparticles**
Particle Size	**Nickel oxide (NiO) Nanoparticles , <50 nm particle size (TEM), Purity >99%**
CAS Number	**1313-99-1**
Product Number	**CMN-09**
Molecular formula	**NiO**
Molecular weight	**74.69**
Form	**Powder**
Solubility	**Insoluble in water**

TEM Image



Application: Nickel (NiO) nanoparticles have many applications, including, medical applications (Imaging, drug delivery, biomedical detection, and antibiotics), Engineering applications (Sensing electrochemical capacitance, photocatalysis, and other chemical catalysis), Energy storage (Production of fuel cells and batteries, including cathodes and other material components) and other applications Catalysts, anti-ferromagnetic layers, adhesive and coloring agents for enamel.

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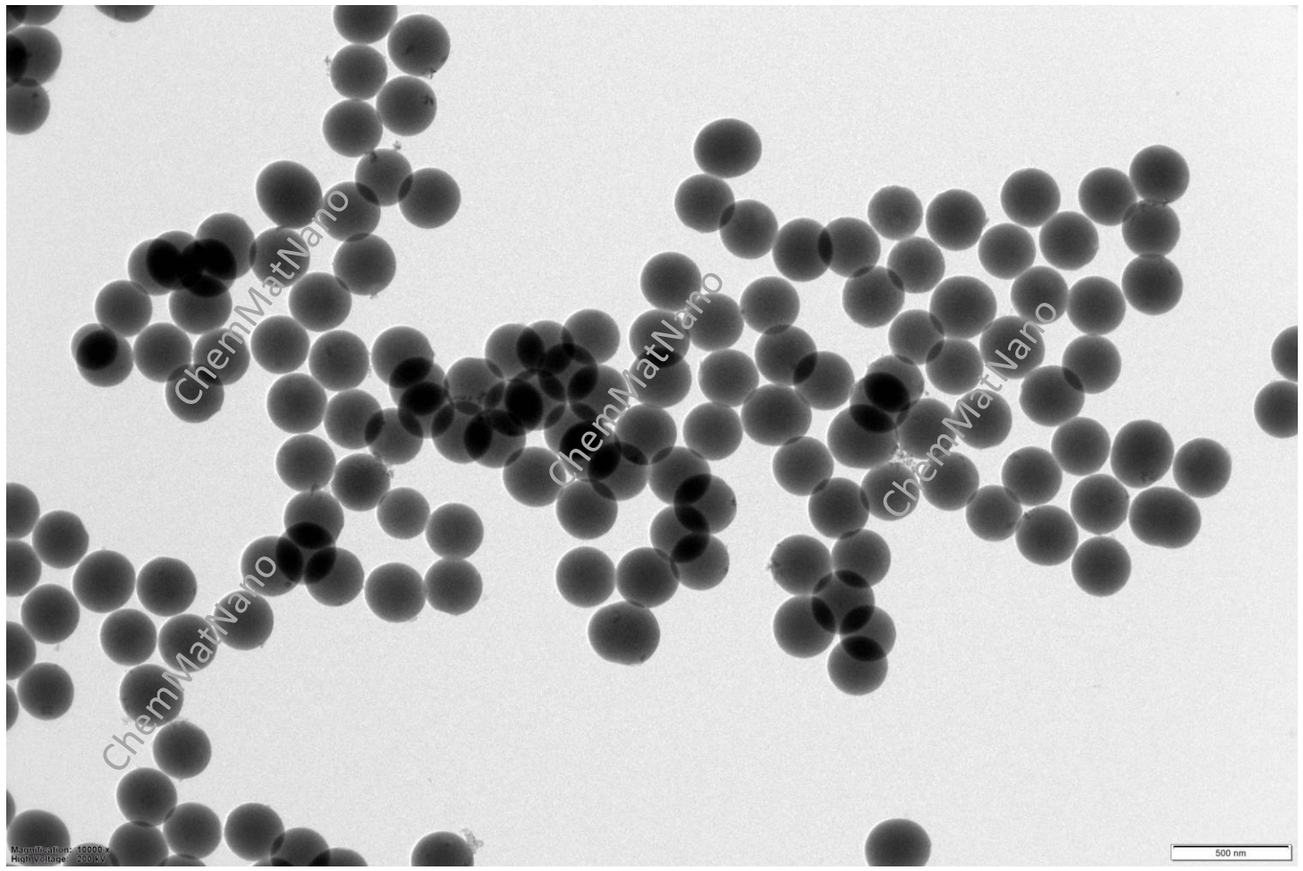
Mesoporous silica oxide Nanoparticles (SiO_2)

Product Specification

Product Name	**Mesoporous silica oxide (SiO_2) Nanoparticles**
Particle Size	**Mesoporous silica oxide (SiO2) Nanoparticles, <50 nm particle size (TEM), Purity >99%**
CAS Number	**7631-86-9**
Product Number	**CMN-10**
Molecular formula	**SiO_2**
Molecular weight	**60.08**
Form	**Powder**
Solubility	**Insoluble in water**

TEM Image



Mesoporous SiO_2 nanoparticles (MSNs) can be used to Targeted drug delivery and Controlled release. The MSNs have a high surface area, large pore volume, tunable pore size, and good chemical and thermal stability. These properties make them suitable for various controlled release applications. The MSNs can also be used for Wastewater remediation, Indoor air cleaning, Catalysis, Bio-catalysis, CO_2 capture, Bioanalytical sample preparation, Pervaporation membrane improvement.

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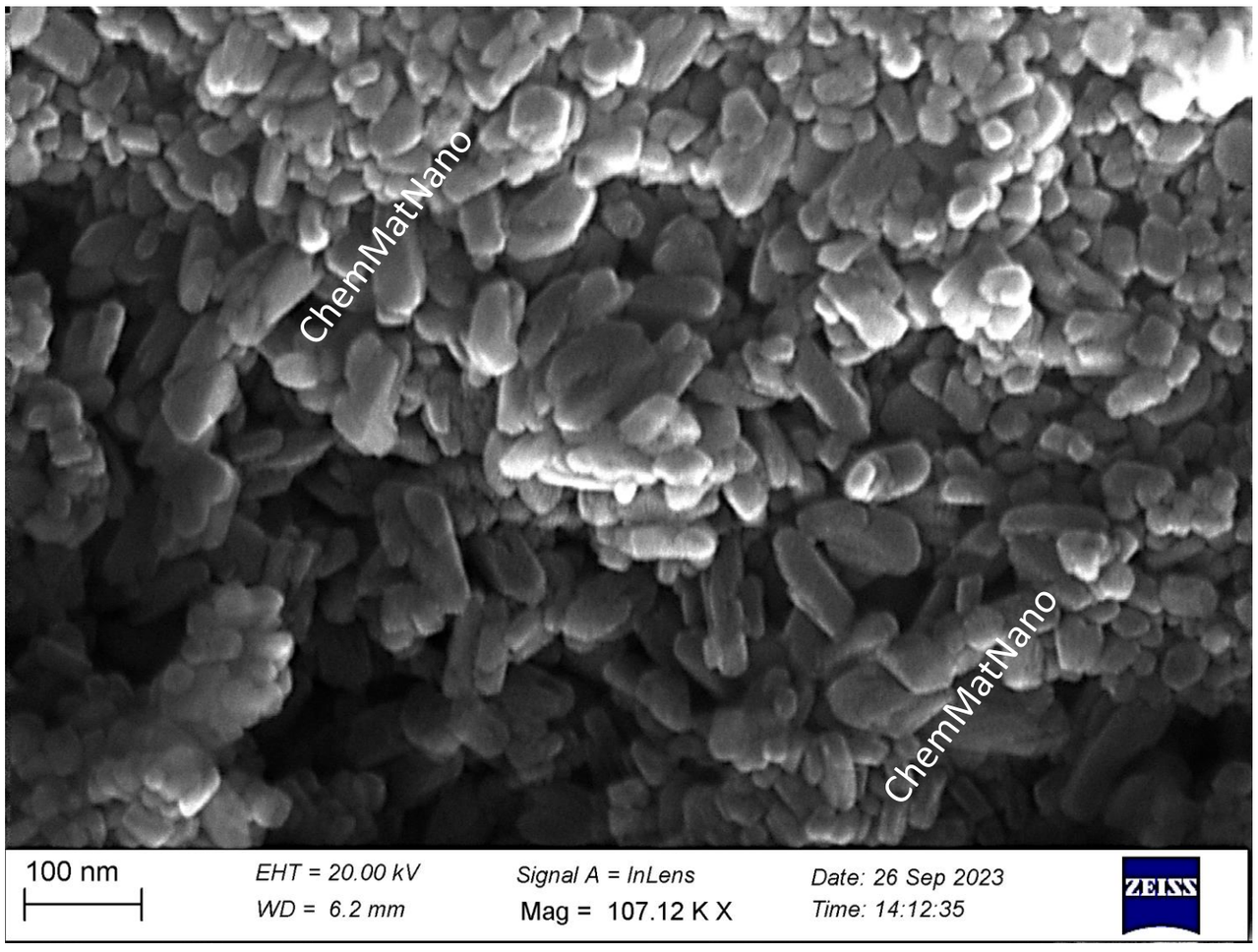
Copper oxide (CuO) Nanoparticles

Product Specification

Product Name	**Copper oxide (CuO) Nanoparticles**
Particle Size	**Copper oxide (CuO) Nanoparticles , <50 nm particle size (TEM), Purity >99%**
CAS Number	**1317-38-0**
Product Number	**CMN-11**
Molecular formula	**CuO**
Molecular weight	**79.55**
Form	**Powder**
Solubility	**Insoluble in water**

SEM Image



Application: Copper oxide NPs (CuO NPs) have been used for PN junction diodes, lithium-ion batteries, organic synthesis, sensing, removing pollutants, reducing CO_2, antimicrobial activity, and in the biomedical field.

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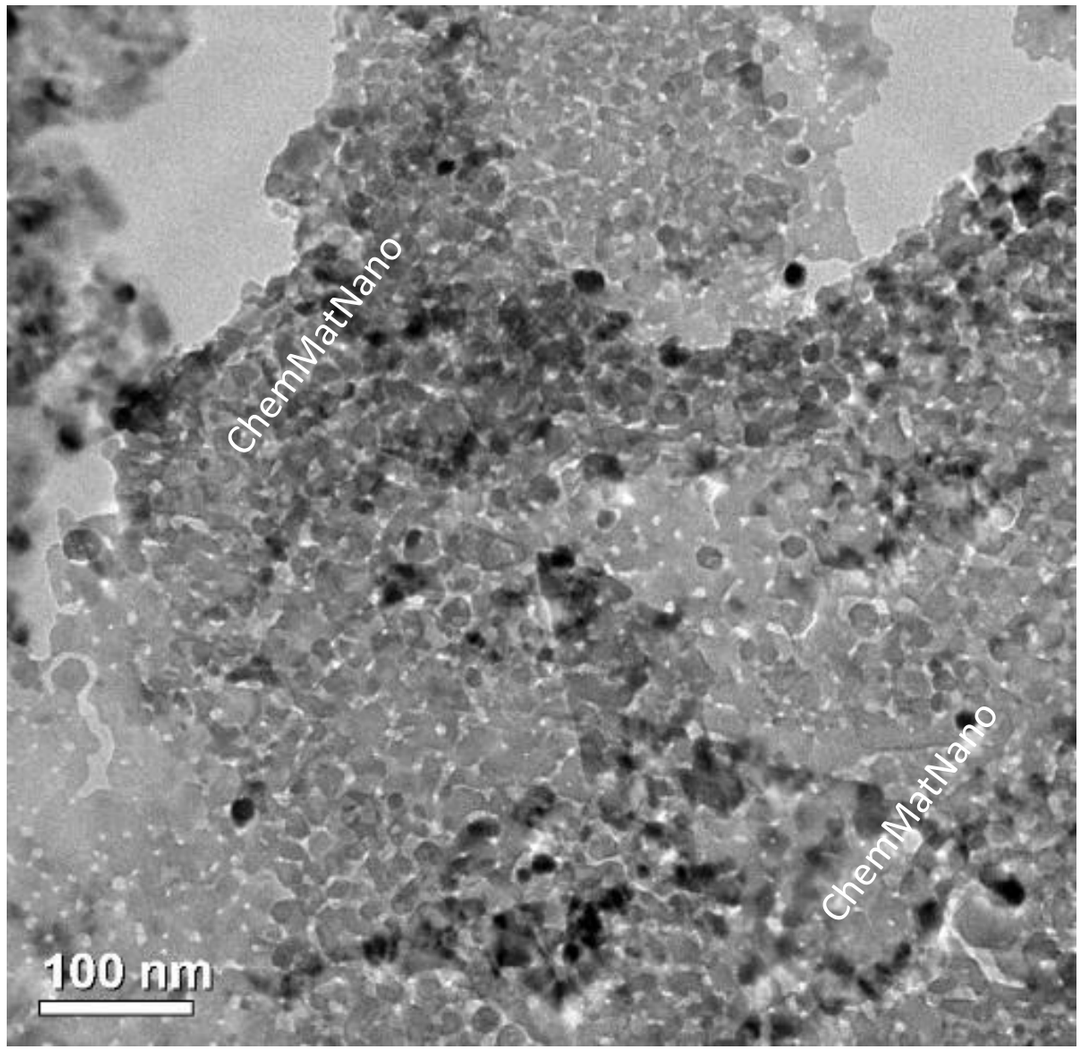
Graphene-Ag Nanoparticles

Product Specification

Product Name	**Graphene-Ag Nanoparticles**
Particle Size	**Graphene-Ag Nanoparticles, <50 nm particle size (TEM), Purity >99%**
CAS Number	**-**
Product Number	**CMN-12**
Molecular formula	**C-Ag**
Molecular weight	**119.88**
Form	**Powder**
Solubility	**Insoluble in water**

TEM Image



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Application: Reduced graphene oxide (rGO)-Silver (Ag) nanocomposite has many applications, including, Electronic devices, Energy storage devices, Biosensors, Biomedical applications, Supercapacitors, Membranes, Catalysts, Water purification, Antimicrobial and anticancer therapy and biosensors.

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Graphene-Cu Nanoparticles

Product Specification

Product Name	**Graphene-Cu Nanoparticles**
Particle Size	**Graphene-Cu Nanoparticles, <50 nm particle size (TEM), Purity >99%**
CAS Number	**-**
Product Number	**CMN-13**
Molecular formula	**C-Cu**
Molecular weight	**75.56**
Form	**Powder**
Solubility	**Insoluble in water**

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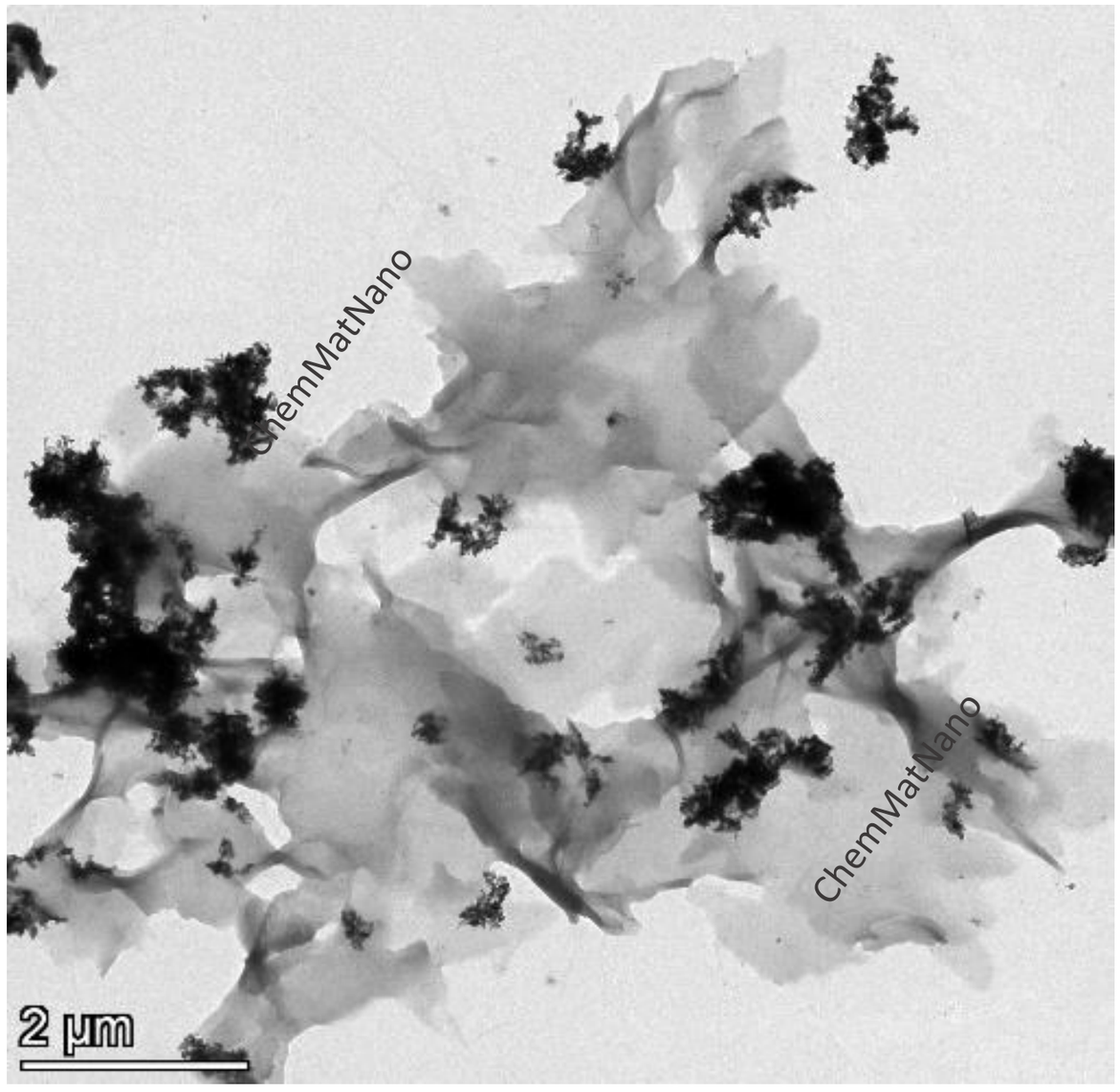
TEM Image



Application: Graphene-copper nanoparticles can be used next-generation electronics, crafting ultra-fast transistors, super-sensitive biosensors, and lightning-fast charging batteries. They unlock cleaner energy in fuel cells, drive chemical reactions, strengthen composites for aerospace, deliver targeted drugs, and even purify water.

Graphene-Ni Nanoparticles

Product Specification

Product Name	**Graphene-Ni Nanoparticles**
Particle Size	**Graphene-Ni Nanoparticles, <50 nm particle size (TEM), Purity >99%**
CAS Number	**-**
Product Number	**CMN-14**
Molecular formula	**C-Ni**
Molecular weight	**70.7**
Form	**Powder**
Solubility	**Insoluble in water**

Application: Reduced graphene oxide (rGO)-nickel (Ni) nanoparticle nanocomposites have applications in Catalysis, Data storage, Targeted drug transportation, Magnetic resonance imaging technologies, Electrodes for batteries and Materials for hydrogen storage.

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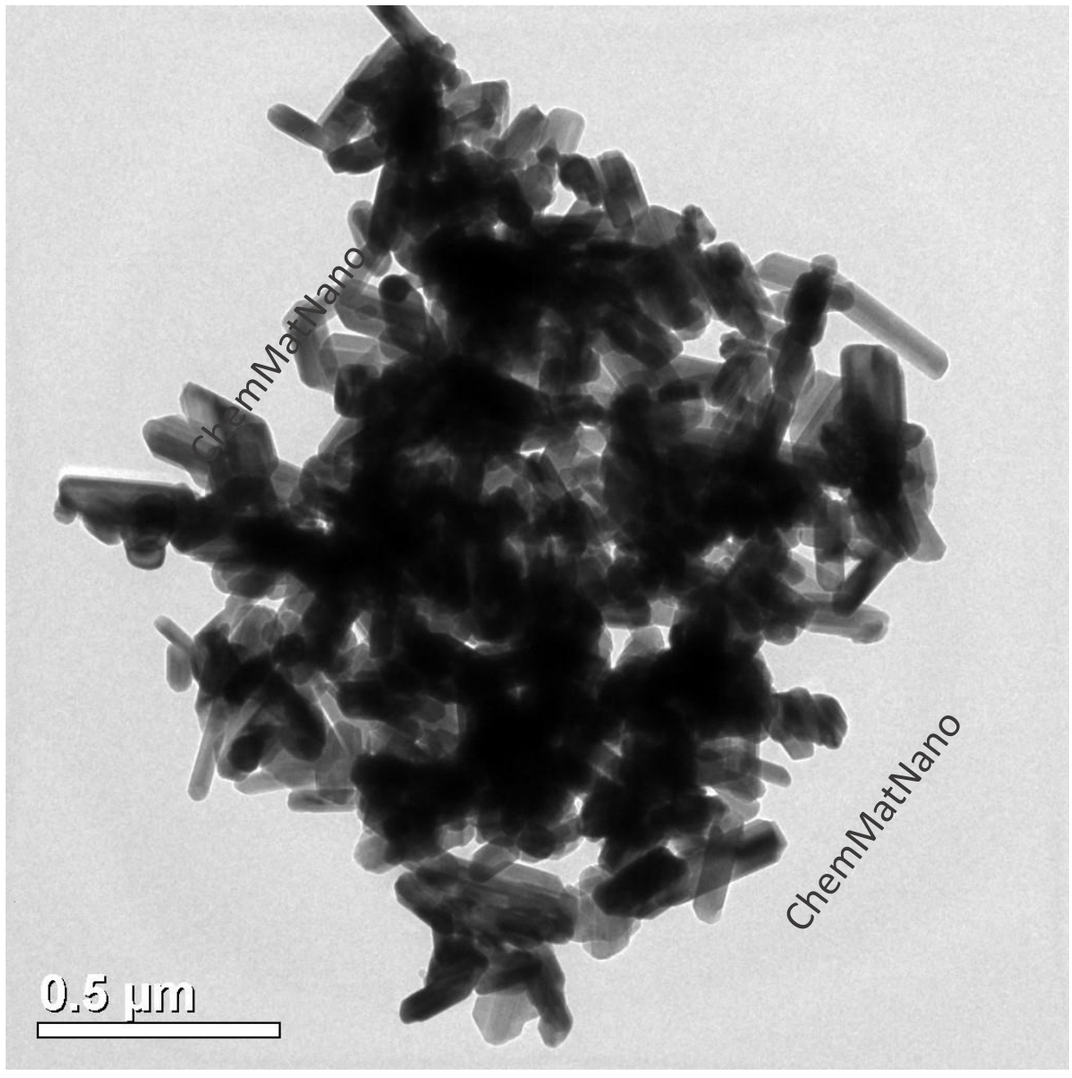
Manganese oxide (MnO_2) Nanoparticles

Product Specification

Product Name	**Manganese oxide (MnO_2) Nanoparticles**
Particle Size	**Manganese oxide (MnO_2) Nanoparticles, <50 nm particle size (TEM), Purity >99%**
CAS Number	**1313-13-9**
Product Number	**CMN-15**
Molecular formula	**MnO_2**
Molecular weight	**86.94**
Form	**Powder**
Solubility	**Insoluble in water**

TEM Image



Application: Manganese oxide (MnO_2) nanoparticles have many applications, including, Energy storage (lithium-ion batteries and capacitors), Catalysts (molecular sieves and magnetic materials, Biomedical (antibacterial and antifungal agents), Imaging (contrast agents in magnetic resonance imaging (MRI), Therapeutic activity (photodynamic therapy in cancer treatment), Photovoltaic cells (photovoltaic cells) and Water treatment.

Cerium Oxide (CeO_2) Nanoparticles

Product Specification

Product Name	**Cerium Oxide (CeO_2) Nanoparticles**
Particle Size	**Cerium Oxide (CeO_2) Nanoparticles , <50 nm particle size (TEM), Purity >99%**
CAS Number	**1306-38-3**
Product Number	**CMN-16**
Molecular formula	**CeO_2**
Molecular weight	**172.115**
Form	**Powder**
Solubility	**Insoluble in water**

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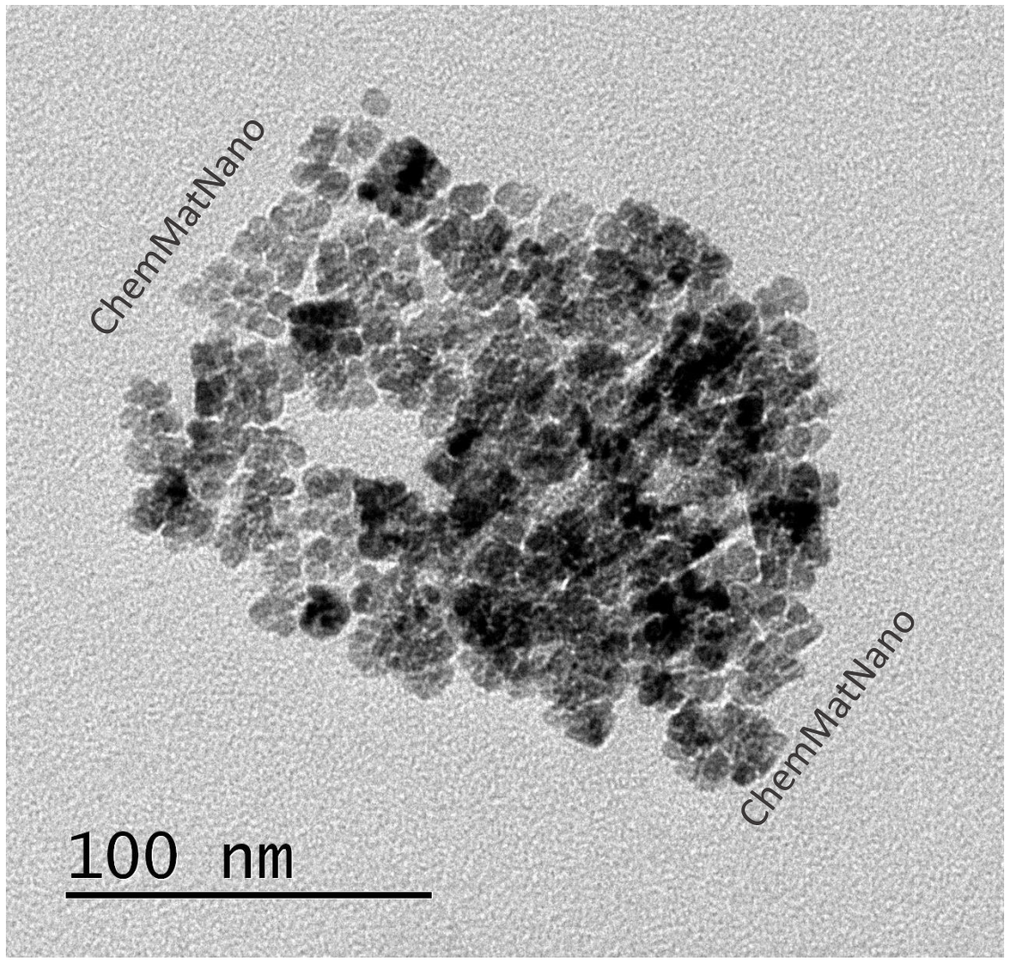
TEM Image



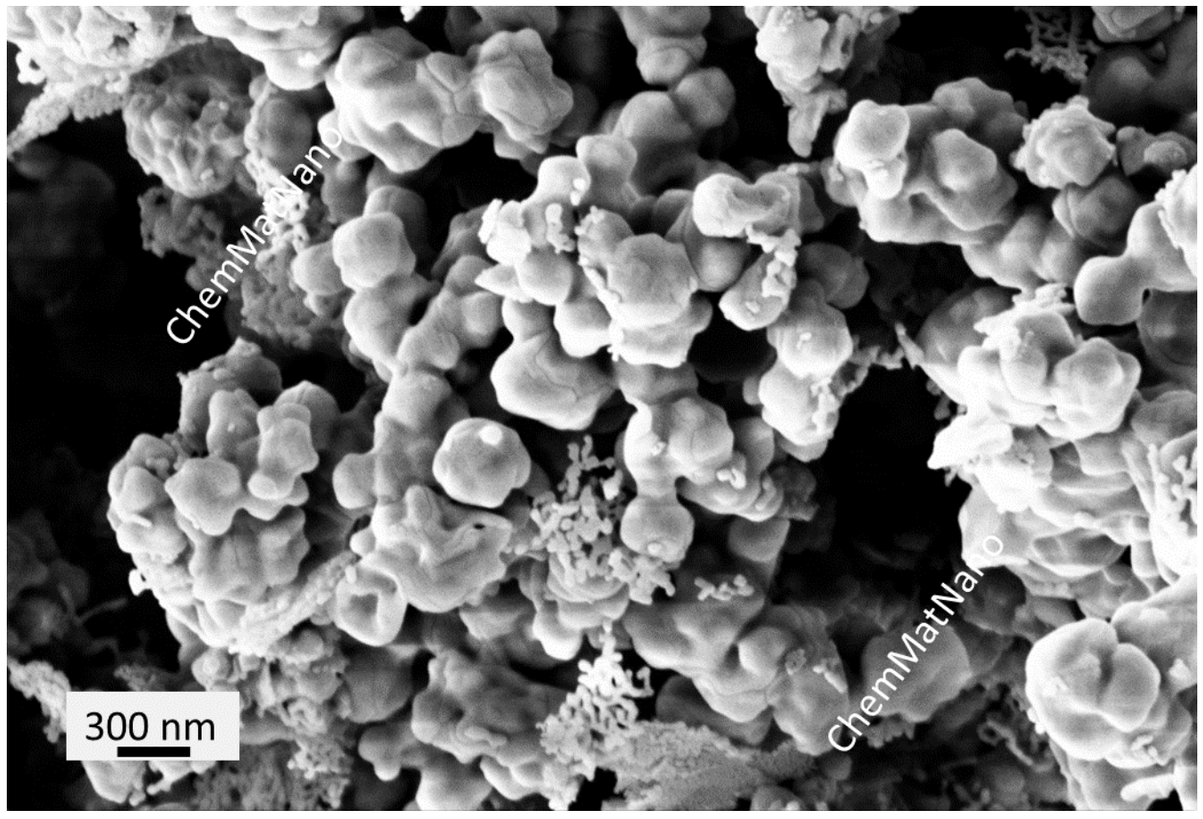
Application: Cerium oxide (CeO_2) nanoparticles, also known as nanoceria, have a wide range of applications. These include Biomedical (Biosensors, cancer therapy, antimicrobial, anti-cancer, anti-larvicidal, photo-catalysis, and antioxidant therapies), Environmental (Electrode materials for sensors, oxygen conductors in solid oxide fuel cells, and ultraviolet blocking components in cosmetics), Engineering (High-temperature oxidation protection materials, catalytic materials, and solar cells) and other applications such as Filters, ultraviolet absorbers, corrosion protection, fuel oxidation catalysis, and automotive exhaust treatment.

Cobalt oxide Nanoparticles

Product Specification

Product Name	**Cobalt(II,III) oxide Nanoparticles**
Particle Size	**Cobalt(II,III) oxide Nanoparticles , <50 nm particle size (TEM), Purity >99%**
CAS Number	**1308-06-1**
Product Number	**CMN-17**
Molecular formula	**Co_3O_4**
Molecular weight	**240.8**
Form	**Powder**
Solubility	**Insoluble in water**

SEM Image



Application: Cobalt oxide nanoparticles (CoOx NPs) are versatile powerhouses, powering lithium-ion batteries, accelerating fuel cells, capturing solar energy, splitting water for clean hydrogen, cleansing pollutants, sensing gases, storing data in magnetic devices, enhancing MRI images, delivering targeted drugs, fighting cancer with heat, and even protecting surfaces and beautifying cosmetics.

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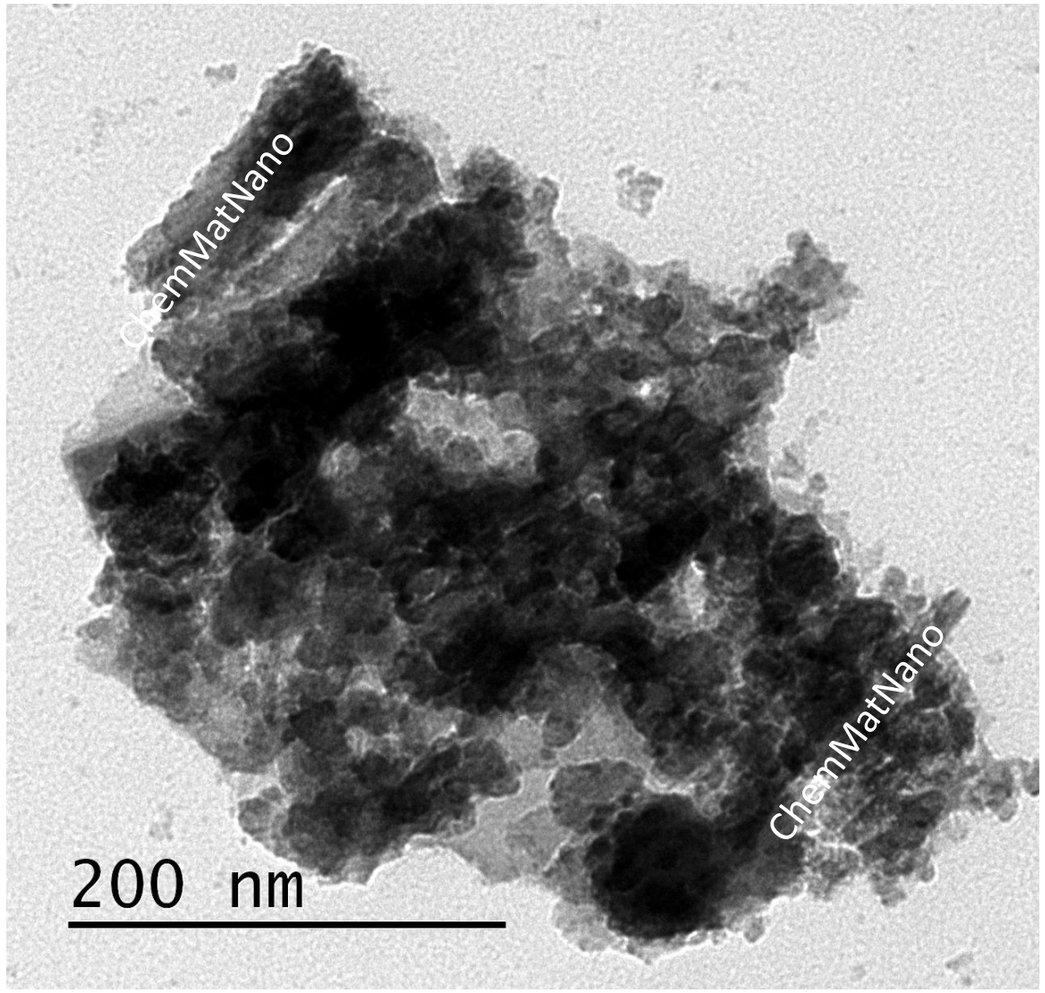
Tin oxide Nanoparticles

Product Specification

Product Name	**Tin(IV) oxide Nanoparticles**
Particle Size	**Tin(IV) oxide Nanoparticles , <50 nm particle size (TEM), Purity >99%**
CAS Number	**18282-10-5**
Product Number	**CMN-18**
Molecular formula	**SnO_2**
Molecular weight	**150.708**
Form	**Powder**
Solubility	**Insoluble in water**

TEM Image



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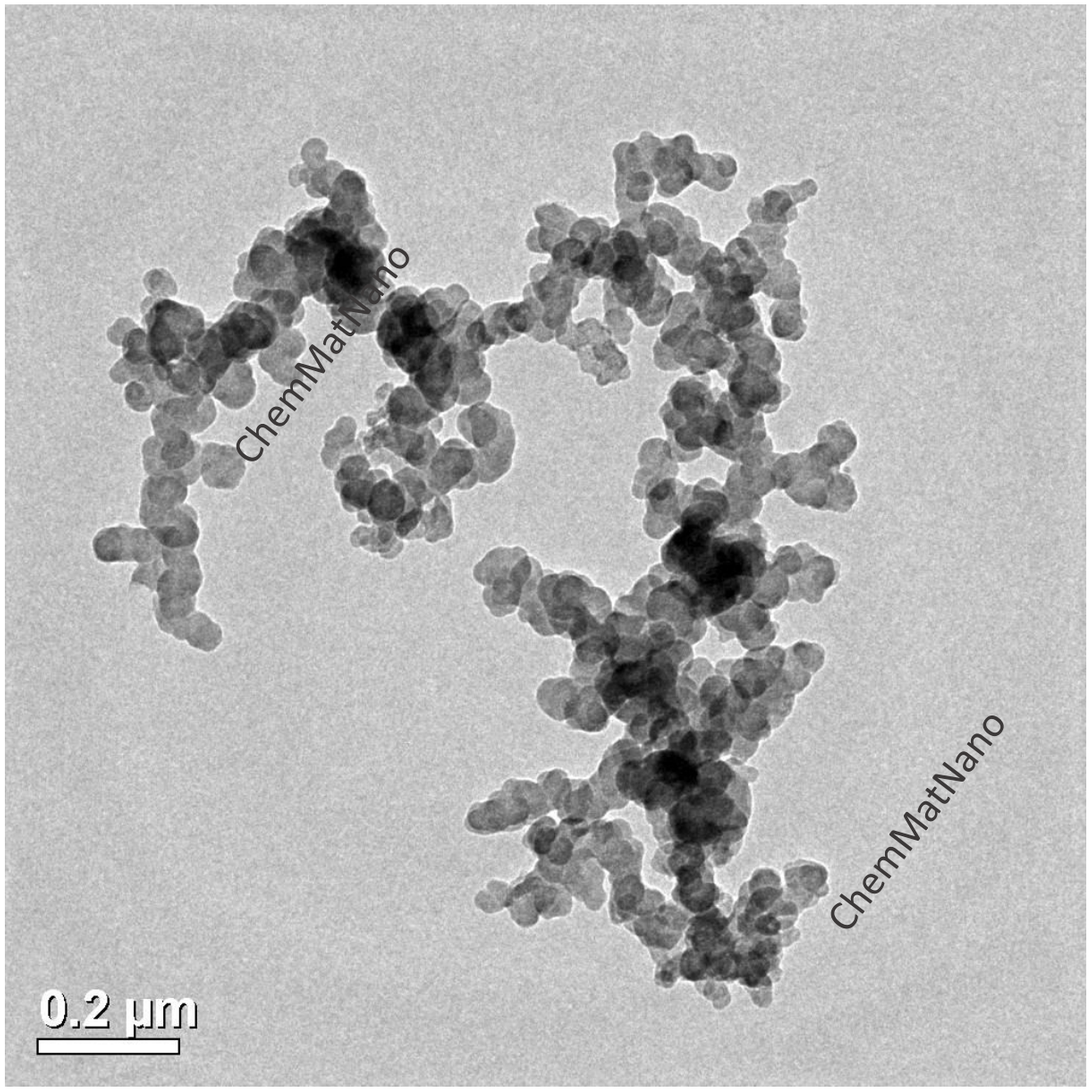
Application: Tin oxide nanoparticles find applications in transparent conductive electrodes, gas sensors, lithium-ion batteries, photocatalysis, dye-sensitized solar cells, optoelectronic devices, coatings, and biomedical applications, with potential for further expansion in disease diagnostics and hydrogen storage.

Titanium dioxide (TiO_2) nanoparticles

Product Specification

Product Name	**Titanium dioxide (TiO_2) nanoparticles**
Particle Size	**Titanium dioxide (TiO_2) nanoparticles, <50 nm particle size (TEM), Purity >99%**
CAS Number	**13463-67-7**
Product Number	**CMN-19**
Molecular formula	**TiO_2**
Molecular weight	**79.90**
Form	**Powder**
Solubility	**Insoluble in water**

TEM Image



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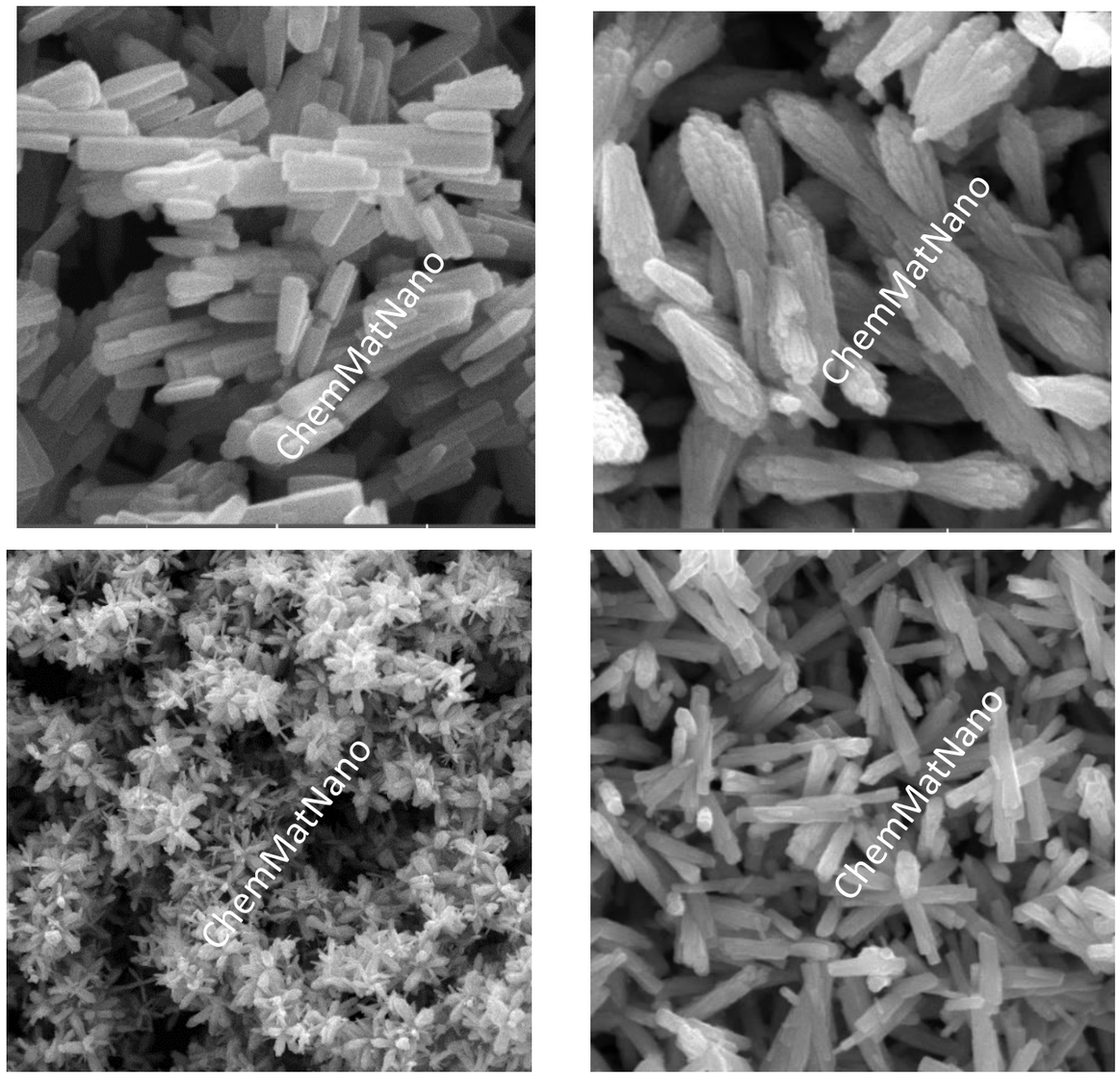
Application: Biosensors, Cosmetics, Industrial, Pharmaceutical, Plastics, and other applications include: Nanomedicine, Nanobiotechnology, Solar and electrochemical cells, Wastewater treatment, Soil remediation, Gas sensing, Paint and paper productions, Hydrogen fuel generation, Antiseptics

Zinc oxide (ZnO) nanoparticles

Product Specification

Product Name	**Zinc oxide (ZnO) nanoparticles**
Particle Size	**Zinc oxide (ZnO) nanoparticles, <50 nm particle size (TEM), Purity >99%**
CAS Number	**1314-13-2**
Product Number	**CMN-20**
Molecular formula	**ZnO**
Molecular weight	**81.39**
Form	**Powder**
Solubility	**Insoluble in water**

SEM Image



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Application: Zinc oxide (ZnO) NPs have been used for Biomedical engineering, Sunscreen, Food industry, energy conversion and storage, Wastewater treatment, Environmental applications.