ULTRANANOTECH

Materials Beyond Imagination

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ABOUT US

Ultrananotech is pioneered by a team of passionate scientists with diversified knowledge and experience in the field of nanoscience and nanotechnology. They have wide ranging research experience in both industry and academia covering a wide spectrum of applications in semiconducting, thermoelectric, polymer and renewable energy sector.

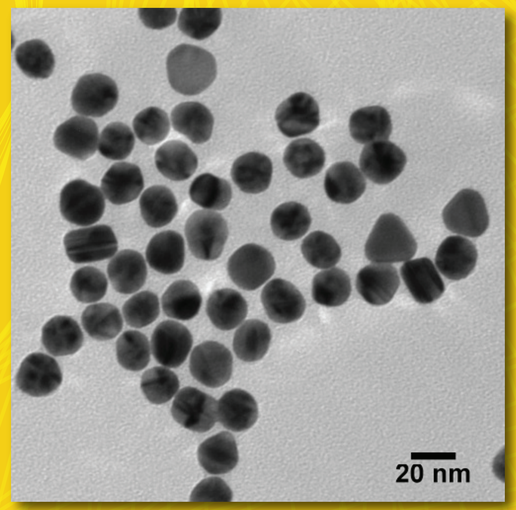
Ultrananotech is the leading supplier of nanomaterials in India. We have partnerships with renowned global giants in the field of nanotechnology. Your search for nanomaterials comes to an end when you will reach us.

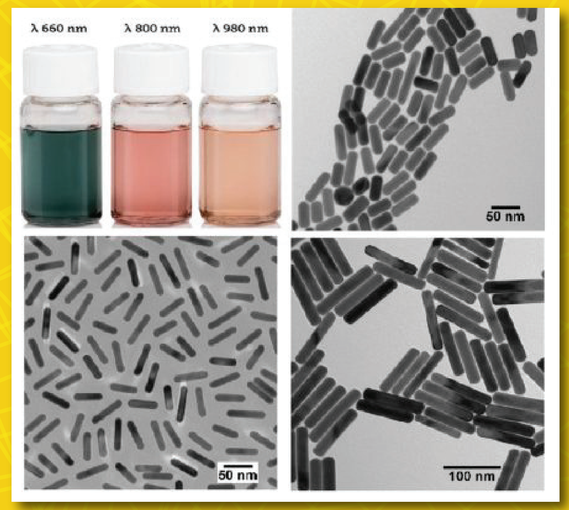
OUR PRODUCTS

- Nanomaterials
- Single crystals
- Silicon wafer
- Rare earth
- Sputtering targets
- CVD graphene
- Graphene, carbon nanotubes
- Substrate and films

Nanomaterials

Nanomaterials because of very small size it has unique properties compared to the bulk materials. Due to their unique properties,Nanomaterials have found wide potential applications in electronics, optoelectronics, medicine, coatings, composite and other fields.We have metal, metal oxide, metal alloy nano powders, nanoflake solution, nanoparticles dispersion. Apart from these, we also have gold spheres, gold and silver nano rods.



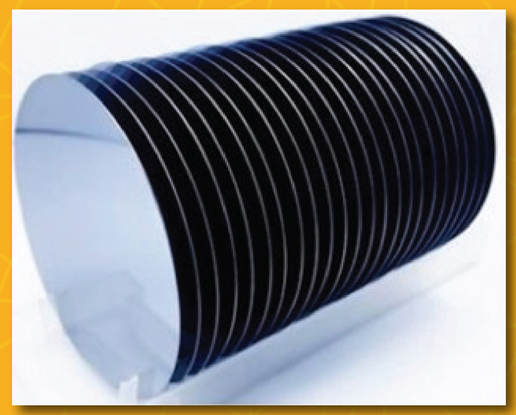


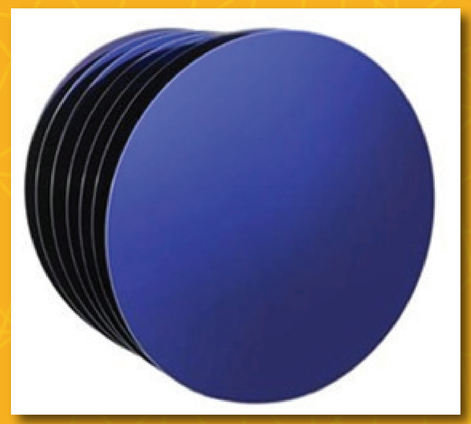




Silicon wafer

Silicon wafer is a material used for producing semiconductors, which can be found in all types of electronic devices. It is mostly used as a semiconductor in the technology and electronic sector.There are various methods used in silicon fabrication counting the horizontal Bridgeman method, horizontal gradient freeze method, vertical gradient freeze, vertical Bridgeman method and the Czochralski pulling method.
The impurities can alter silicon electronic properties which are essential depending on the purpose of its production.Some of the silicon dopants that can be added throughout the growth process include aluminium, boron, nitrogen, indium and gallium.



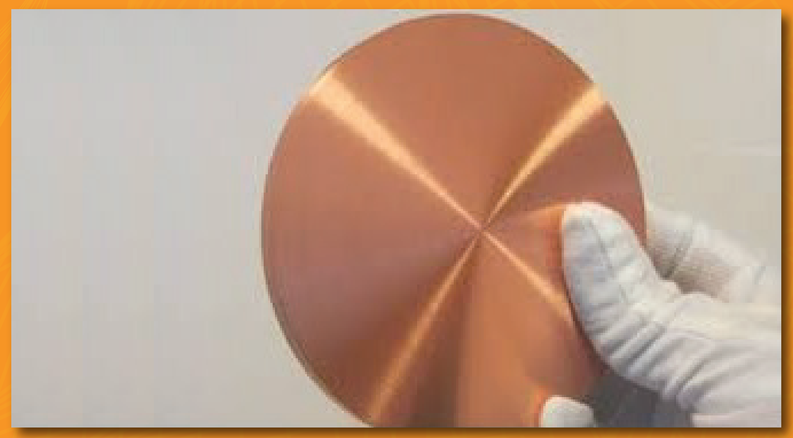




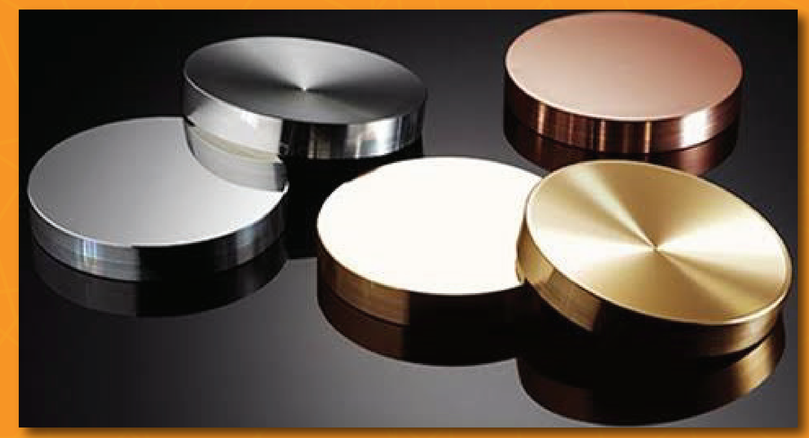


Sputtering targets

A sputtering target is a material that is used to create thin films in a technique known as sputter deposition, or thin film deposition. During this process the sputtering target material, which begins as a solid, is broken up by gaseous ions into tiny particles that form a spray and coat another material, which is known as the substrate.
We have highly pure metal, ceramic, rare-earth, Alloy Sputtering Target, Metal boride, Metal Carbide, Nitride, Selenide, and Silicide Sputtering Target with or without copper bonding.

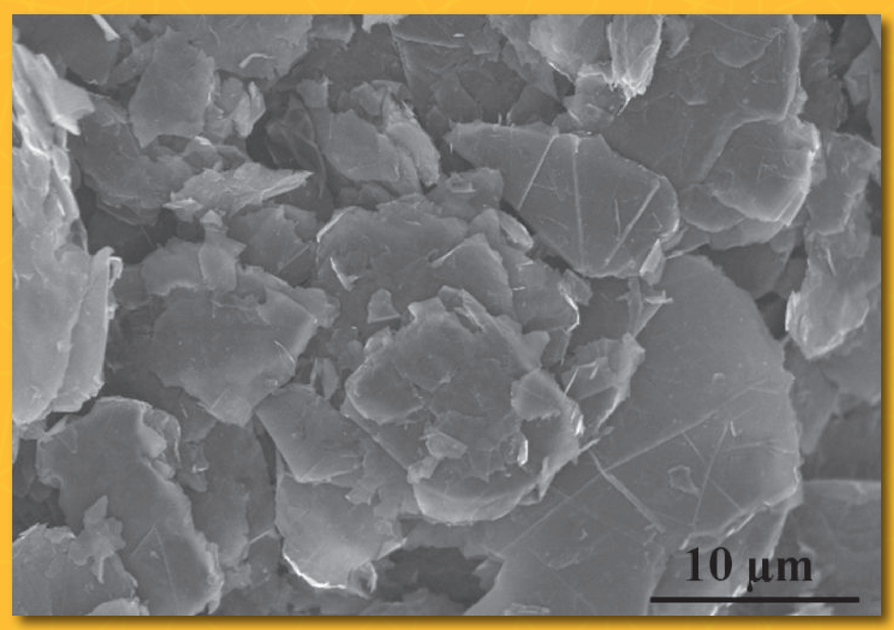


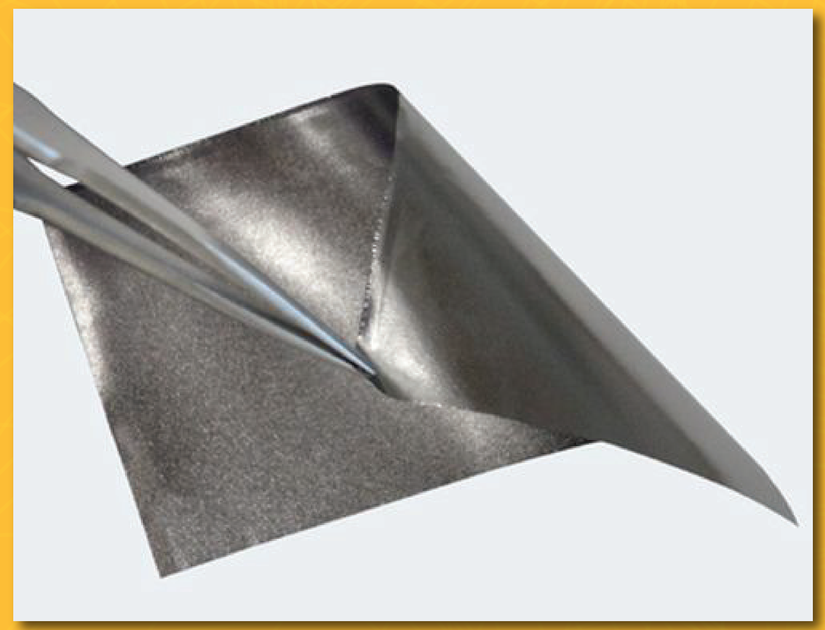




Graphene, carbon nanotubes

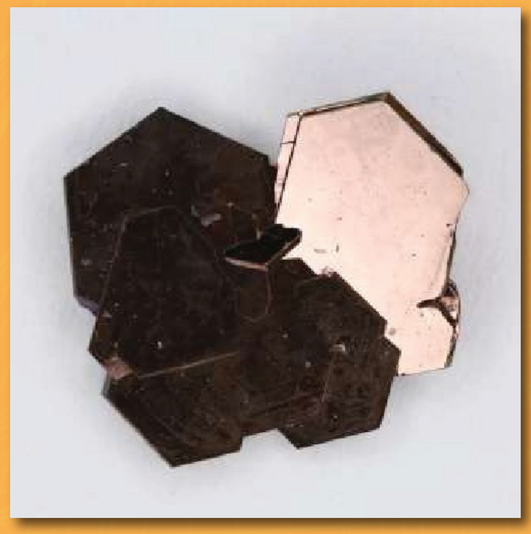
Graphene can be prepared by CVD or chemical exfoliation method. Graphenehas unique electronic properties and optical properties. Graphene find wide application in composite, electronic, coating and photodetector. Depending on the number of layers present graphene can be classified as single layer, few layers and multilayer graphene. We have wide range of graphene, graphene oxide nano powders and dispersion.Carbon nanotubes have excellent mechanical, chemical, physical and magnetic properties. Carbon nanotubes are widely used in composite material, shield material against static electricity, batteries. We have both single wall and Multi wall Carbon Nanotubes.





Single crystals

A single-crystal, or monocrystalline, solid is a material in which the crystal lattice of the entire sample is continuous and unbroken to the edges of the sample, with no grain boundaries. We have both 2D single crystals and as well simple single crystals substrate. We have ultra-high pure wide range of 2D single crystals of metal, semimetal, semiconductor, superconductors, insulators, topological insulators etc. 2D materials have wide range of applications including Flexible Electronics, Sensor, Nanogenerators etc









Rare earth

Rare-earth elements (REE) are necessary components of more than 200 products across a wide range of applications, especially high-tech consumer products, such as cellular telephones, computer hard drives, electric and hybrid vehicles, and flat-screen monitors and televisions. Significant defense applications include electronic displays, guidance systems, lasers, and radar and sonar systems. We have wide range of rare earth metal, rare earth oxide, Rare earth salts.

Example: Cerium, Sandium, Yttrium, Europium, Gadolinium, Samarium, Lanthanum

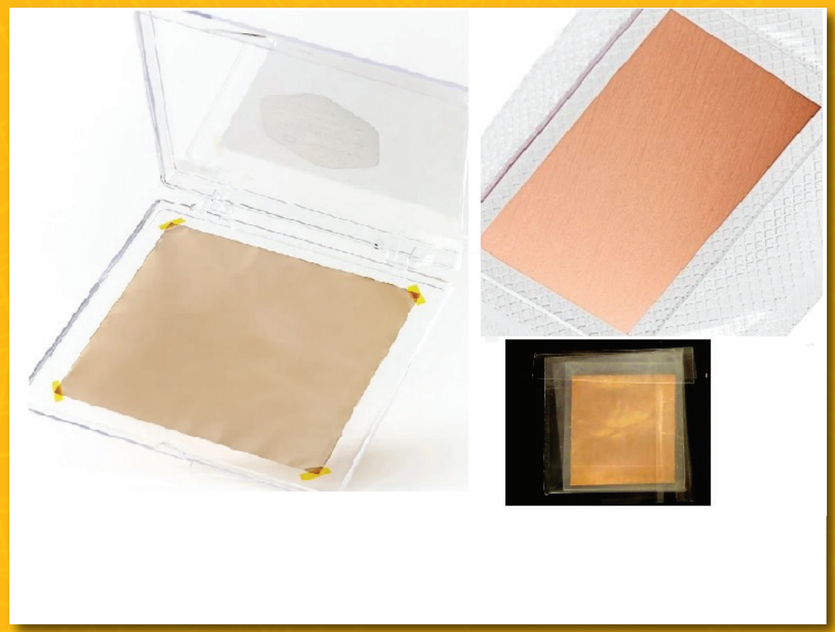






CVD graphene

Chemical vapour deposition, or CVD, is a method which can produce relatively high-quality graphene, potentially on a large scale.During the CVD process, the substrate is usually coated a very small amount, at a very slow speed, often described in microns of thickness per hour. The solid compound or compounds is/are vaporized, and then deposited onto a substrate via condensation.
The benefits of using CVD to deposit materials onto a substrate are that the quality of the resulting materials is usually very high. Other common characteristics of CVD coatings include imperviousness, high purity, fine grained and increased hardness over other coating methods. We have monolayer CVD graphene on Copper, Quartz, PET, Silicon/ Silicon dioxide, Nickel etc





Substrate and films

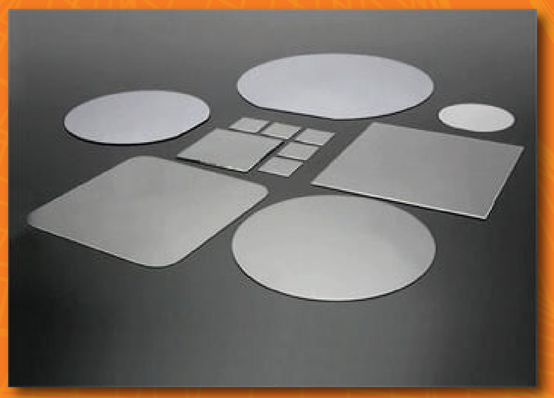
We supply variety of single crystal wafers and substrates in different specifications. Wafer products mainly include: optical grade $LiNbO_3$, $LiTaO_3$, MgO:$LiNbO_3$ wafers and SAW grade $LiNbO_3$, $LiTaO_3$, Quartz wafers are also available. Substrate products mainly include: $MgAl_2O_4$ (Spinel), MgO, $SrTiO_3$, $LaAlO_3$, Al_2O_3 (Sapphire), GGG etc.

In addition, we can Supply various of crystal boules according to different needs of customers: $LiNbO_3$ boule, $LiTaO_3$ boule, TeO_2 boule, MgO:$LiNbO_3$ boule, Fe:$LiNbO_3$ boule, Tm:$LiNbO_3$ boule, Pr:$LiNbO_3$ boule, Er:$LiNbO_3$ boule and MgO:$LiTaO_3$ boule etc. Apart fromthese, we can supply various Film on copper like h-BN film, ITO coated film on various substrates









GLOBAL PARTNERS

GRAPHENE SUPERMARKET®

Headquarter in New York, is owned and operated by Graphene Laboratories Inc. They have a wide selections of high quality graphene products and including Graphite, layered materials, CVD graphene, Graphene TEM grid, wafers,graphite etc.

https://graphene-supermarket.com/home.php

Graphenea

Headquarter in Spain, is one of Europe's main producers of graphene. They have a wide selections of high quality graphene products and including Graphene oxide, Reduced Graphene Oxide Film, CVD graphene on different substrate etc.

http://www.graphenea.com/

nanoComposix

Headquarter in California, 4878 Ronson Ct Ste J, San Diego, CA 92111
They have wide range of nano powders and dispersion. They also have bio ready gold and silver nano including Lateral Flow Immunochromatographic Assays of gold nano.

https://nanocomposix.com/

MN
Manchester Nanomaterials

Manchester Nanomaterials: Head Office at 83 Ducie Street, Manchester M1 2JQ, UK

MN is specialize in providing the highest quality single-crystal layered materials for your needs in research and development.Hexagonal boron nitride (hBN), Molybdenum disulfide (MoS2), Molybdenum diselenide (MoSe2),Tungsten disulfide (WS2), Tungsten diselenide (WSe2), Tungsten ditelluride (WTe2), Gallium Selenide (GaSe), Lead Tin Sulfide (PbSnS2).

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