

The Global Market for Nanomaterials 2023-2033

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Abstracts

Nanomaterials are increasingly becoming part of our daily lives and are already heavily used in products such as sunscreens (titanium dioxide/zinc oxide nanoparticles), sporting goods (carbon nanotubes, graphene etc.), conductive battery additives (carbon nanotubes, graphene etc.), automotive composites (nanotubes, graphene, cellulose nanofibers etc.) and high-definition TVs (quantum dots). Their use is only going to increase due to continued industry demand for nanomaterials for current and next generation batteries, biomedical imaging and flexible electronics.

Their novel properties, that are not apparent in larger forms of the same material, has led to their desirability and exploitation in a wide range of applications. Nanomaterials can be defined as substances that are intentionally produced, manufactured or engineered to have specific properties and one or more dimensions typically between 1 and 100 nanometres. Nanomaterials cover a range of materials inorganic metal and metal oxide nanomaterials, carbon-based nanomaterials and polymeric particulate materials in a variety of forms.

They are generally categorized into 4 types:

inorganic-based nanomaterials include metal (e.g. silver, gold, copper, iron etc.) and metal oxide (zinc oxide, iron oxide, silica, titanium dioxide etc.)
nanomaterials

carbon-based nanomaterials (e.g. graphene, fullerene, single-walled carbon nanotube, multiwalled carbon nanotube, carbon nanofibers)

organic-based nanomaterials (e.g. dendrimers)

composite-based nanomaterials.

Most nanomaterials are produced in multi-tonne volumes in varying sizes, shapes, and also in surface coatings.

The Global Market for Nanomaterials 2023-2033 includes:

In-depth analysis of the global market for nanomaterials, producers, and products.

Analysis of the following nanomaterials:

Aluminium oxide nanomaterials

Antimony tin oxide nanomaterials

Bismuth oxide nanomaterials

Carbon nanotubes (MWCNTs, SWCNTs)

Cerium oxide nanomaterials

Cobalt oxide nanomaterials

Copper oxide nanomaterials

Dendrimers

Fullerenes

Gold nanomaterials

Graphene (Graphene oxide; nanoplatelets from liquid phase-exfoliation and intercalation exfoliation; CVD graphene film) .

Iron oxide nanomaterials

Magnesium oxide nanomaterials

Manganese oxide nanomaterials

Nanocellulose (Cellulose nanofibers, cellulose nanocrystals and bacterial nanocellulose)

Nanoclays

Nanodiamonds

Nanosilver

Nickel nanomaterials

Quantum dots

Silicon oxide nanomaterials

Titanium dioxide nanomaterials

Zinc oxide nanomaterials

Zirconium oxide nanomaterials

Metal Organic Frameworks (MOFs)

Carbon nanohorns

Nanoprecipitated calcium carbonate

Graphene quantum dots

Perovskite

Hydroxyapatite nanoparticles/powders

Palladium nanoparticles/powders

Yttrium oxide nanoparticles/powders

Metal-Organic Frameworks (MOFs)

Boron Nitride nanotubes (BNNTs)

2D materials.

Assessment of nanomaterials market including production volumes, competitive landscape, commercial prospects, applications, demand by market and region, commercialization timelines, prices and producer profiles.

Analysis of global demand, including historical data from 2010, and projections to 2033, in metric tonnes.

Main application and product opportunities in nanomaterials.

Profiles of over 900 nanomaterials producers. Companies profiled include American Elements, Arkema, Ashai Kasei, Cabot Corporation, Carbice Corp., Carbon Upcycling Technologies, C2CNT LLC, Daicel Corporation, Fukuda, GS Alliance Co. Ltd., GS Bavaria GmbH, LG Chem, Mitsubishi Chemical Corporation, Nanoco Group, Cabot Corporation, Nemo Nanomaterials, Ossila, Promethean Particles, Strem Chemicals, Sumitomo Chemical, UP Catalyst and Zeon Corporation.

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