

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). There 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

Hydroxypatite 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.



Contents

1 RESEARCH METHODOLOGY

1.1 Technology Readiness Level (TRL)

2 INTRODUCTION

- 2.1 Aims and objectives of the study
- 2.2 Market definition
- 2.2.1 Properties of nanomaterials
- 2.3 Categorization of engineered nanomaterials

3 THE GLOBAL MARKET FOR NANOMATERIALS

- 3.1 Production, manufacturing and consumption of engineered nanomaterials
 - 3.1.1 Synthesis & production
 - 3.1.2 Production volumes
- 3.2 Environmental emissions of nanomaterials
 - 3.2.1 Emissions and exposures of nanomaterials
 - 3.2.2 Life cycle assessment
 - 3.2.3 Nanomaterials for Carbon Capture and Utilization

3.3 ALUMINIUM OXIDE NANOMATERIALS

- 3.3.1 Market overview
- 3.3.2 Properties
- 3.3.3 Markets and applications
- 3.3.4 Technology Readiness Level (TRL)
- 3.3.5 Global consumption in metric tonnes, 2010-2033
- 3.3.5.1 Consumption by market
 - 3.3.5.1.1 Market segmentation 2022 (%)
 - 3.3.5.1.2 Market segmentation 2022 (MT)
 - 3.3.5.1.3 Market segmentation 2033 (%)
 - 3.3.5.1.4 Market share 2033 (MT)
- 3.3.5.2 Consumption by region
 - 3.3.5.2.1 Consumption by region 2022 (%)
 - 3.3.5.2.2 Consumption by region 2022 (MT)
 - 3.3.5.2.3 Consumption by region 2033 (%)
- 3.3.5.2.4 Consumption by region 2033 (MT)
- 3.3.6 Prices



3.3.7 Producers

3.4 ANTIMONY TIN OXIDE NANOMATERIALS

- 3.4.1 Market overview
- 3.4.2 Properties
- 3.4.3 Markets and applications
- 3.4.4 Technology Readiness Level (TRL)
- 3.4.5 Global consumption in metric tonnes, 2010-2033
- 3.4.5.1 Consumption by market
 - 3.4.5.1.1 Market segmentation 2022 (%)
 - 3.4.5.1.2 Market segmentation 2022 (MT)
 - 3.4.5.1.3 Market share 2033 (%)
 - 3.4.5.1.4 Market share 2033 (MT)
- 3.4.5.2 Consumption by region
 - 3.4.5.2.1 Consumption by region 2022(%)
 - 3.4.5.2.2 Consumption by region 2022 (MT)
 - 3.4.5.2.3 Consumption by region 2033 (%)
 - 3.4.5.2.4 Consumption by region 2033 (MT)
- 3.4.6 Prices
- 3.4.7 Producers
- 3.5 BISMUTH OXIDE NANOMATERIALS
 - 3.5.1 Market overview
 - 3.5.2 Properties
 - 3.5.3 Markets and applications
 - 3.5.4 Technology Readiness Level (TRL)
 - 3.5.5 Global consumption in metric tonnes, 2010-2033
 - 3.5.5.1 Consumption by market
 - 3.5.5.1.1 Market segmentation 2022 (%)
 - 3.5.5.1.2 Market segmentation 2022 (MT)
 - 3.5.5.1.3 Market share 2033 (%)
 - 3.5.5.1.4 Market share 2033(MT)
 - 3.5.5.2 Consumption by region
 - 3.5.5.2.1 Consumption by region 2022(%)
 - 3.5.5.2.2 Consumption by region 2022 (MT)
 - 3.5.5.2.3 Consumption by region 2033 (%)
 - 3.5.5.2.4 Consumption by region 2033 (MT)
 - 3.5.6 Prices
 - 3.5.7 Producers
- 3.6 CELLULOSE NANOFIBERS
 - 3.6.1 Market overview



- 3.6.2 Properties
- 3.6.3 Markets and applications
- 3.6.4 Products
- 3.6.5 Technology Readiness Level (TRL)
- 3.6.6 Global consumption in metric tonnes, 2010-2033
- 3.6.6.1 Production capacities
- 3.6.6.2 Global consumption, by market
- 3.6.6.3 Consumption by market
 - 3.6.6.3.1 Market segmentation 2022 (%)
 - 3.6.6.3.2 Market segmentation 2022 (MT)
 - 3.6.6.3.3 Market share 2033 (%)
 - 3.6.6.3.4 Market share 2033 (MT)
- 3.6.6.4 Consumption by region
 - 3.6.6.4.1 Consumption by region 2022(%)
 - 3.6.6.4.2 Consumption by region 2022 (MT)
 - 3.6.6.4.3 Consumption by region 2033 (%)
 - 3.6.6.4.4 Consumption by region 2033 (MT)
- 3.6.7 Prices
- 3.6.8 Producers
- 3.7 CERIUM OXIDE NANOMATERIALS
 - 3.7.1 Market overview
 - 3.7.2 Properties
 - 3.7.3 Markets and applications
 - 3.7.4 Technology Readiness Level (TRL)
 - 3.7.5 Global consumption in metric tonnes, 2010-2033
 - 3.7.5.1 Consumption by market
 - 3.7.5.1.1 Market segmentation 2022 (%)
 - 3.7.5.1.2 Market segmentation 2022 (MT)
 - 3.7.5.1.3 Market share 2033 (%)
 - 3.7.5.1.4 Market share 2033(MT)
 - 3.7.5.2 Consumption by region
 - 3.7.5.2.1 Consumption by region 2022(%)
 - 3.7.5.2.2 Consumption by region 2022 (MT)
 - 3.7.5.2.3 Consumption by region 2033 (%)
 - 3.7.5.2.4 Consumption by region 2033 (MT)
 - 3.7.6 Prices
 - 3.7.7 Producers
- 3.8 COBALT OXIDE NANOMATERIALS
 - 3.8.1 Market overview



- 3.8.2 Properties
- 3.8.3 Markets and applications
- 3.8.4 Technology Readiness Level (TRL)
- 3.8.5 Global consumption in metric tonnes, 2010-2033
- 3.8.5.1 Consumption by market
- 3.8.5.1.1 Market segmentation 2022 (%)
- 3.8.5.1.2 Market segmentation 2022 (MT)
- 3.8.5.1.3 Market share 2033(%)
- 3.8.5.1.4 Market share 2033 (MT)
- 3.8.5.2 Consumption by region
- 3.8.5.2.1 Consumption by region 2022(%)
- 3.8.5.2.2 Consumption by region 2022 (MT)
- 3.8.5.2.3 Consumption by region 2033 (%)
- 3.8.5.2.4 Consumption by region 2033 (MT)
- 3.8.6 Prices
- 3.8.7 Producers
- 3.9 COPPER OXIDE NANOMATERIALS
 - 3.9.1 Market overview
 - 3.9.2 Properties
 - 3.9.3 Markets and applications
 - 3.9.4 Technology Readiness Level (TRL)
 - 3.9.5 Global consumption in metric tonnes, 2010-2033
 - 3.9.5.1 Consumption by market
 - 3.9.5.1.1 Market segmentation 2022 (%)
 - 3.9.5.1.2 Market segmentation 2022 (MT)
 - 3.9.5.1.3 Market share 2033(%)
 - 3.9.5.1.4 Market share 2033 (MT)
 - 3.9.5.2 Consumption by region
 - 3.9.5.2.1 Consumption by region 2022(%)
 - 3.9.5.2.2 Consumption by region 2022 (MT)
 - 3.9.5.2.3 Consumption by region 2033 (%)
 - 3.9.5.2.4 Consumption by region 2033 (MT)
 - 3.9.6 Prices
 - 3.9.7 Producers
- 3.10 DENDRIMERS
 - 3.10.1 Market overview
 - 3.10.2 Properties
 - 3.10.2.1 Types
 - 3.10.3 Markets and applications



- 3.10.4 Technology Readiness Level (TRL)
- 3.10.5 Global consumption in metric tonnes, 2010-2033
 - 3.10.5.1 Consumption by market
 - 3.10.5.1.1 Market segmentation 2022 (%)
 - 3.10.5.1.2 Market segmentation 2022 (MT)
 - 3.10.5.1.3 Market share 2033 (%)
 - 3.10.5.1.4 Market share 2033 (MT)
- 3.10.5.2 Consumption by region
 - 3.10.5.2.1 Consumption by region 2022(%)
 - 3.10.5.2.2 Consumption by region 2022 (MT)
 - 3.10.5.2.3 Consumption by region 2033 (%)
 - 3.10.5.2.4 Consumption by region 2033(MT)
- 3.10.6 Prices
- 3.10.7 Producers
- 3.11 FULLERENES
 - 3.11.1 Market overview
 - 3.11.2 Properties
 - 3.11.3 Products
 - 3.11.4 Markets and applications
 - 3.11.5 Technology Readiness Level (TRL)
 - 3.11.6 Global consumption in metric tonnes, 2010-2033
 - 3.11.6.1 Consumption by market
 - 3.11.6.1.1 Market segmentation 2022 (%)
 - 3.11.6.1.2 Market segmentation 2022 (MT)
 - 3.11.6.1.3 Market share 2033 (%)
 - 3.11.6.1.4 Market share 2033 (MT)
 - 3.11.6.2 Demand by region
 - 3.11.6.2.1 Consumption by region 2022(%)
 - 3.11.6.2.2 Consumption by region 2022 (MT)
 - 3.11.6.2.3 Consumption by region 2033 (%)
 - 3.11.6.2.4 Consumption by region 2033(MT)
 - 3.11.7 Prices
 - 3.11.8 Producers
- 3.12 GOLD NANOMATERIALS
 - 3.12.1 Market overview
 - 3.12.2 Properties
 - 3.12.3 Markets and applications
 - 3.12.4 Technology Readiness Level (TRL)
 - 3.12.5 Global consumption in metric tonnes, 2010-2033



- 3.12.5.1 Consumption by market
 - 3.12.5.1.1 Market segmentation 2022 (%)
 - 3.12.5.1.2 Market segmentation 2022 (MT)
- 3.12.5.1.3 Market share 2033 (%)
- 3.12.5.1.4 Market share 2033 (MT)
- 3.12.5.2 Consumption by region
- 3.12.5.2.1 Consumption by region 2022(%)
- 3.12.5.2.2 Consumption by region 2022 (MT)
- 3.12.5.2.3 Consumption by region 2033 (%)
- 3.12.5.2.4 Consumption by region 2033 (MT)
- 3.12.6 Prices
- 3.12.7 Producers
- 3.13 GRAPHENE
 - 3.13.1 Market overview
 - 3.13.2 Properties
 - 3.13.3 Markets and applications
 - 3.13.4 Technology Readiness Level (TRL)
 - 3.13.5 Products
 - 3.13.6 Global consumption in metric tonnes, 2010-2033
 - 3.13.6.1 Consumption by market
 - 3.13.6.1.1 Market segmentation 2022 (%)
 - 3.13.6.1.2 Market share 2033 (%)
 - 3.13.6.2 Consumption by region
 - 3.13.6.2.1 Consumption by region 2022(%)
 - 3.13.6.2.2 Consumption by region 2022 (MT)
 - 3.13.6.2.3 Consumption by region 2033 (%)
 - 3.13.6.2.4 Consumption by region 2033 (MT)
 - 3.13.7 Prices
 - 3.13.8 Producers
- 3.14 IRON OXIDE NANOMATERIALS
 - 3.14.1 Market overview
 - 3.14.2 Properties
 - 3.14.3 Markets and applications
 - 3.14.4 Technology Readiness Level (TRL)
 - 3.14.5 Global consumption in metric tonnes, 2010-2033
 - 3.14.5.1 Consumption by market
 - 3.14.5.1.1 Market segmentation 2022 (%)
 - 3.14.5.1.2 Market segmentation 2022 (MT)
 - 3.14.5.1.3 Market share 2033 (%)



- 3.14.5.1.4 Market share 2033 (MT)
- 3.14.5.2 Consumption by region
- 3.14.5.2.1 Consumption by region 2022(%)
- 3.14.5.2.2 Consumption by region 2022 (MT)
- 3.14.5.2.3 Consumption by region 2033 (%)
- 3.14.5.2.4 Consumption by region 2033 (MT)
- 3.14.6 Prices
- 3.14.7 Producers
- 3.15 MAGNESIUM OXIDE NANOMATERIALS
 - 3.15.1 Market overview
 - 3.15.2 Properties
 - 3.15.3 Markets and applications
 - 3.15.4 Technology Readiness Level (TRL)
 - 3.15.5 Global consumption in metric tonnes, 2010-2033
 - 3.15.5.1 Consumption by market
 - 3.15.5.1.1 Market segmentation 2022 (%)
 - 3.15.5.1.2 Market segmentation 2022 (MT)
 - 3.15.5.1.3 Market share 2033 (%)
 - 3.15.5.1.4 Market share 2033 (MT)
 - 3.15.5.2 Consumption by region
 - 3.15.5.2.1 Consumption by region 2022 (%)
 - 3.15.5.2.2 Consumption by region 2022 (MT)
 - 3.15.5.2.3 Consumption by region 2033 (%)
 - 3.15.5.2.4 Consumption by region 2033 (MT)
 - 3.15.6 Prices
 - 3.15.7 Producers
- 3.16 MANGANESE OXIDE NANOMATERIALS
 - 3.16.1 Market overview
 - 3.16.2 Properties
 - 3.16.3 Markets and applications
 - 3.16.4 Technology Readiness Level (TRL)
 - 3.16.5 Global consumption in metric tonnes, 2010-2033
 - 3.16.5.1 Consumption by market
 - 3.16.5.1.1 Market segmentation 2022 (%)
 - 3.16.5.1.2 Market segmentation 2022 (MT)
 - 3.16.5.1.3 Market share 2033 (%)
 - 3.16.5.1.4 Market share 2033 (MT)
 - 3.16.5.2 Consumption by region
 - 3.16.5.2.1 Consumption by region 2022 (%)



- 3.16.5.2.2 Consumption by region 2022 (MT)
- 3.16.5.2.3 Consumption by region 2033 (%)
- 3.16.5.2.4 Consumption by region 2033 (MT)
- 3.16.6 Prices
- 3.16.7 Producers
- 3.17 MULTI-WALLED CARBON NANOTUBES (MWCNT)
 - 3.17.1 Market overview
 - 3.17.2 Properties
 - 3.17.3 Markets and applications
 - 3.17.4 Technology Readiness Level (TRL)
 - 3.17.5 Global consumption in metric tonnes, 2010-2033
 - 3.17.5.1 Consumption by market
 - 3.17.5.1.1 Market segmentation 2022 (%)
 - 3.17.5.1.2 Market segmentation 2022 (MT)
 - 3.17.5.1.3 Market share 2033 (%)
 - 3.17.5.1.4 Market share 2033 (MT)
 - 3.17.5.2 Consumption by region
 - 3.17.5.2.1 Consumption by region 2022(%)
 - 3.17.5.2.2 Consumption by region 2033 (MT)
 - 3.17.5.2.3 Consumption by region 2033 (%)
 - 3.17.5.2.4 Consumption by region 2033 (MT)
 - 3.17.6 Prices
 - 3.17.7 Producers
- 3.18 NANOCLAYS
 - 3.18.1 Market overview
 - 3.18.2 Properties
 - 3.18.3 Markets and applications
 - 3.18.4 Technology Readiness Level (TRL)
 - 3.18.5 Global consumption in metric tonnes, 2010-2033
 - 3.18.5.1 Consumption by market
 - 3.18.5.1.1 Market segmentation 2022 (%)
 - 3.18.5.1.2 Market segmentation 2022 (MT)
 - 3.18.5.1.3 Market share 2033 (%)
 - 3.18.5.1.4 Market share 2033 (MT)
 - 3.18.5.2 Consumption by region
 - 3.18.5.2.1 Consumption by region 2022(%)
 - 3.18.5.2.2 Consumption by region 2022 (MT)
 - 3.18.5.2.3 Consumption by region 2033 (%)
 - 3.18.5.2.4 Consumption by region 2033 (MT)



- 3.18.6 Prices
- 3.18.7 Producers
- 3.19 NANODIAMONDS
 - 3.19.1 Market overview
 - 3.19.2 Properties
 - 3.19.2.1 Types
 - 3.19.2.2 Fluorescent nanodiamonds (FNDs)
 - 3.19.3 Markets and applications
 - 3.19.4 Technology Readiness Level (TRL)
 - 3.19.5 Global consumption in metric tonnes, 2010-2033
 - 3.19.5.1 Consumption by market
 - 3.19.5.1.1 Market segmentation 2022 (%)
 - 3.19.5.1.2 Market segmentation 2022 (MT)
 - 3.19.5.1.3 Market share 2033 (%)
 - 3.19.5.1.4 Market share 2033 (MT)
 - 3.19.5.2 Consumption by region
 - 3.19.5.2.1 Consumption by region 2022(%)
 - 3.19.5.2.2 Consumption by region 2022 (MT)
 - 3.19.5.2.3 Consumption by region 2033 (%)
 - 3.19.5.2.4 Consumption by region 2033 (MT)
 - 3.19.6 Prices
- 3.19.7 Producers
- 3.20 NANOFIBERS
 - 3.20.1 Market overview
 - 3.20.2 Properties
 - 3.20.2.1 Types
 - 3.20.2.1.1 Synthetic polymer nanofibers
 - 3.20.2.1.2 Alumina nanofibers
 - 3.20.2.1.3 Carbon nanofibers
 - 3.20.2.1.4 Natural polymers
 - 3.20.2.1.5 Silicon nanofibers
 - 3.20.3 Markets and applications
 - 3.20.4 Technology Readiness Level (TRL)
 - 3.20.5 Global consumption in metric tonnes, 2010-2033
 - 3.20.5.1 Consumption by market
 - 3.20.5.1.1 Market segmentation 2022 (%)
 - 3.20.5.1.2 Market segmentation 2022 (MT)
 - 3.20.5.1.3 Market share 2033 (%)
 - 3.20.5.1.4 Market share 2033 (MT)



- 3.20.5.2 Consumption by region
 - 3.20.5.2.1 Consumption by region 2022(%)
 - 3.20.5.2.2 Consumption by region 2022 (MT)
- 3.20.5.2.3 Consumption by region 2033 (%)
- 3.20.5.2.4 Consumption by region 2033 (MT)
- 3.20.6 Producers

3.21 NANOSILVER

- 3.21.1 Market overview
- 3.21.2 Properties
- 3.21.3 Markets and applications
- 3.21.4 Technology Readiness Level (TRL)
- 3.21.5 Global consumption in metric tonnes, 2010-2033
- 3.21.5.1 Consumption by market
 - 3.21.5.1.1 Market segmentation 2022 (%)
 - 3.21.5.1.2 Market segmentation 2022 (MT)
 - 3.21.5.1.3 Market share 2033 (%)
 - 3.21.5.1.4 Market share 2033 (MT)
- 3.21.5.2 Consumption by region
 - 3.21.5.2.1 Consumption by region 2022(%)
 - 3.21.5.2.2 Consumption by region 2022 (MT)
 - 3.21.5.2.3 Consumption by region 2033 (%)
 - 3.21.5.2.4 Consumption by region 2033 (MT)
- 3.21.6 Prices
- 3.21.7 Producers
- 3.22 NICKEL NANOMATERIALS
 - 3.22.1 Market overview
 - 3.22.2 Properties
 - 3.22.3 Markets and applications
 - 3.22.4 Technology Readiness Level (TRL)
 - 3.22.5 Global consumption in metric tonnes, 2010-2033
 - 3.22.5.1 Consumption by market
 - 3.22.5.1.1 Market segmentation 2022 (%)
 - 3.22.5.1.2 Market segmentation 2022 (MT)
 - 3.22.5.1.3 Market share 2033 (%)
 - 3.22.5.1.4 Market share 2033 (MT)
 - 3.22.5.2 Consumption by region
 - 3.22.5.2.1 Consumption by region 2022(%)
 - 3.22.5.2.2 Consumption by region 2022 (MT)
 - 3.22.5.2.3 Consumption by region 2033 (%)



- 3.22.5.2.4 Consumption by region 2033 (MT)
- 3.22.6 Prices
- 3.22.7 Producers
- 3.23 QUANTUM DOTS
 - 3.23.1 Market overview
 - 3.23.2 Properties
 - 3.23.2.1 Cadmium QDs
 - 3.23.2.2 Cadmium-free QDs
 - 3.23.3 Markets and applications
 - 3.23.4 Products
 - 3.23.5 Technology Readiness Level (TRL)
 - 3.23.6 Global consumption in metric tonnes, 2010-2033
 - 3.23.6.1 Consumption by market
 - 3.23.6.1.1 Market segmentation 2022 (%)
 - 3.23.6.1.2 Market segmentation 2022 (MT)
 - 3.23.6.1.3 Market share 2033 (%)
 - 3.23.6.1.4 Market share 2033 (MT)
 - 3.23.6.2 Consumption by region
 - 3.23.6.2.1 Consumption by region 2022(%)
 - 3.23.6.2.2 Consumption by region 2022 (MT)
 - 3.23.6.2.3 Consumption by region 2033 (%)
 - 3.23.6.2.4 Consumption by region 2033 (MT)
 - 3.23.7 Prices
 - 3.23.8 Producers
- 3.24 SILICON OXIDE NANOMATERIALS
 - 3.24.1 Market overview
 - 3.24.2 Properties
 - 3.24.3 Markets and applications
 - 3.24.4 Technology Readiness Level (TRL)
 - 3.24.5 Global consumption in metric tonnes, 2010-2033
 - 3.24.5.1 Consumption by market
 - 3.24.5.1.1 Market segmentation 2022 (%)
 - 3.24.5.1.2 Market segmentation 2022 (MT)
 - 3.24.5.1.3 Market share 2033 (%)
 - 3.24.5.1.4 Market segmentation 2022 (MT)
 - 3.24.5.2 Consumption by region
 - 3.24.5.2.1 Consumption by region 2022(%)
 - 3.24.5.2.2 Consumption by region 2022 (MT)
 - 3.24.5.2.3 Consumption by region 2033 (%)



- 3.24.5.2.4 Consumption by region 2033 (MT)
- 3.24.6 Prices
- 3.24.7 Producers
- 3.25 SINGLE-WALLED CARBON NANOTUBES (SWCNT)
 - 3.25.1 Market overview
 - 3.25.2 Properties
 - 3.25.3 Markets and applications
 - 3.25.4 Technology Readiness Level (TRL)
 - 3.25.5 Prices
 - 3.25.6 Global consumption in metric tonnes, 2010-2033
 - 3.25.7 Producers
- 3.26 TITANIUM DIOXIDE NANOMATERIALS
 - 3.26.1 Market overview
 - 3.26.2 Properties
 - 3.26.2.1 Photocatalytic
 - 3.26.2.2 UV-filter
 - 3.26.3 Markets and applications
 - 3.26.4 Technology Readiness Level (TRL)
 - 3.26.5 Global consumption in metric tonnes, 2010-2033
 - 3.26.5.1 Consumption by market
 - 3.26.5.1.1 Market segmentation 2022 (%)
 - 3.26.5.1.2 Market segmentation 2022 (MT)
 - 3.26.5.1.3 Market share 2033 (%)
 - 3.26.5.1.4 Market share 2033 (MT)
 - 3.26.5.2 Consumption by region
 - 3.26.5.2.1 Consumption by region 2022(%)
 - 3.26.5.2.2 Consumption by region 2022 (MT)
 - 3.26.5.2.3 Consumption by region 2033 (%)
 - 3.26.5.2.4 Consumption by region 2033(MT)
 - 3.26.6 Producers
- 3.27 ZINC OXIDE NANOMATERIALS
 - 3.27.1 Market overview
 - 3.27.2 Properties
 - 3.27.3 Markets and applications
 - 3.27.4 Technology Readiness Level (TRL)
 - 3.27.5 Global consumption in metric tonnes, 2010-2033
 - 3.27.5.1 Consumption by market
 - 3.27.5.1.1 Market segmentation 2022 (%)
 - 3.27.5.1.2 Market segmentation 2022 (MT)



- 3.27.5.1.3 Market share 2033 (%)
- 3.27.5.1.4 Market share 2033 (MT)
- 3.27.5.2 Consumption by region
- 3.27.5.2.1 Consumption by region 2022(%)
- 3.27.5.2.2 Consumption by region 2022 (MT)
- 3.27.5.2.3 Consumption by region 2033 (%)
- 3.27.5.2.4 Consumption by region 2033 (MT)
- 3.27.6 Producers
- 3.28 ZIRCONIUM OXIDE NANOMATERIALS
 - 3.28.1 Market overview
 - 3.28.2 Properties
 - 3.28.3 Markets and applications
 - 3.28.4 Technology Readiness Level (TRL)
 - 3.28.5 Global consumption in metric tons, 2010-2033
 - 3.28.5.1 Consumption by market
 - 3.28.5.1.1 Market segmentation 2022 (%)
 - 3.28.5.1.2 Market segmentation 2022 (MT)
 - 3.28.5.1.3 Market share 2033 (%)
 - 3.28.5.1.4 Market share 2033 (MT)
 - 3.28.5.2 Consumption by region
 - 3.28.5.2.1 Consumption by region 2022(%)
 - 3.28.5.2.2 Consumption by region 2022 (MT)
 - 3.28.5.2.3 Consumption by region 2033 (%)
 - 3.28.5.2.4 Consumption by region 2033 (MT)
 - 3.28.6 Prices
 - 3.28.7 Producers
- 3.29 OTHER NANOMATERIALS
 - 3.29.1 Metal Organic Frameworks (MOFs)
 - 3.29.1.1 Properties
 - 3.29.1.2 Materials
 - 3.29.1.3 Synthesis
 - 3.29.1.4 Markets and applications
 - 3.29.1.4.1 Coatings
 - 3.29.1.4.2 Gas Separation and Storage
 - 3.29.1.4.3 Biomedicine
 - 3.29.1.4.4 Sensors
 - 3.29.1.4.5 Air and water filtration
 - 3.29.1.4.6 Water harvesting
 - 3.29.1.4.7 Batteries and supercapacitors



- 3.29.1.4.8 Heat exchangers
- 3.29.1.4.9 HVAC
- 3.29.1.5 Producers
- 3.29.2 Carbon Nanohorns (CNHs)
 - 3.29.2.1 Properties
 - 3.29.2.2 Markets and applications
- 3.29.3 Cellullose nanocrystals
- 3.29.3.1 Synthesis
- 3.29.3.2 Properties
- 3.29.3.3 Markets and applications
- 3.29.3.4 Prices
- 3.29.3.5 Production
- 3.29.3.6 Producers
- 3.29.4 Bacterial nanocellulose (BNC)
- 3.29.4.1 Production
- 3.29.4.2 Applications
- 3.29.4.3 Producers
- 3.29.5 Boron Nitride nanotubes (BNNTs)
 - 3.29.5.1 Properties
 - 3.29.5.2 Markets and applications
 - 3.29.5.3 Prices
- 3.29.5.4 Producers
- 3.29.6 Erbium oxide nanoparticles/nanopowders
- 3.29.6.1 Properties, applications, prices and producers
- 3.29.7 Indium oxide nanomaterials
- 3.29.7.1 Properties
- 3.29.8 Molybdenum nanomaterials
- 3.29.8.1 Properties
- 3.29.9 Perovskite quantum dots
- 3.29.9.1 Properties
- 3.29.9.1.1 Comparison to conventional quantum dots
- 3.29.9.2 Synthesis methods
- 3.29.9.3 Applications
- 3.29.9.3.1 Displays
- 3.29.9.4 Producers
- 3.29.10 Graphene quantum dots
 - 3.29.10.1 Composition
- 3.29.10.2 Comparison to quantum dots
- 3.29.10.3 Properties



- 3.29.10.4 Synthesis
 - 3.29.10.4.1 Top-down method
- 3.29.10.4.2 Bottom-up method
- 3.29.10.4.3 Comparison of synthesis methods
- 3.29.10.5 Markets and applications
- 3.29.10.6 Producers
- 3.30 OTHER 2D MATERIALS
 - 3.30.1 Comparative analysis of graphene and other 2D materials
 - 3.30.2 Production methods
 - 3.30.2.1 Top-down exfoliation
 - 3.30.2.2 Mechanical exfoliation method
 - 3.30.2.3 Liquid exfoliation method
 - 3.30.3 Bottom-up synthesis
 - 3.30.3.1 Chemical synthesis in solution
 - 3.30.3.2 Chemical vapor deposition
 - 3.30.4 Types of 2D materials
 - 3.30.4.1 Hexagonal boron-nitride (h-BN)/boron nitride nanosheets (BNNSs)
 - 3.30.4.1.1 Properties
 - 3.30.4.1.2 Applications and markets
 - 3.30.4.2 MXenes
 - 3.30.4.2.1 Properties
 - 3.30.4.2.2 Applications
 - 3.30.4.3 Transition metal dichalcogenides (TMD)
 - 3.30.4.3.1 Properties
 - 3.30.4.3.2 Molybdenum disulphide (MoS2)
 - 3.30.4.3.3 Tungsten ditelluride (WTe2)
 - 3.30.4.4 Borophene
 - 3.30.4.4.1 Properties
 - 3.30.4.4.2 Applications
 - 3.30.4.5 Phosphorene/ Black phosphorus
 - 3.30.4.5.1 Properties
 - 3.30.4.5.2 Applications
 - 3.30.4.6 Graphitic carbon nitride (g-C3N4)
 - 3.30.4.6.1 Properties
 - 3.30.4.6.2 C2N
 - 3.30.4.6.3 Applications
 - 3.30.4.7 Germanene
 - 3.30.4.7.1 Properties
 - 3.30.4.7.2 Applications



- 3.30.4.8 Graphdiyne
- 3.30.4.8.1 Properties
- 3.30.4.8.2 Applications
- 3.30.4.9 Graphane
- 3.30.4.9.1 Properties
- 3.30.4.9.2 Applications
- 3.30.4.10 Rhenium disulfide (ReS2) and diselenide (ReSe2)
- 3.30.4.10.1 Properties
- 3.30.4.10.2 Applications
- 3.30.4.11 Silicene
- 3.30.4.11.1 Properties
- 3.30.4.11.2 Applications
- 3.30.4.12 Stanene/tinene
- 3.30.4.12.1 Properties
- 3.30.4.12.2 Applications
- 3.30.4.13 Antimonene
- 3.30.4.13.1 Properties
- 3.30.4.13.2 Applications
- 3.30.4.14 Indium selenide
- 3.30.4.14.1 Properties
- 3.30.4.14.2 Applications
- 3.30.4.15 Layered double hydroxides (LDH)
- 3.30.4.15.1 Properties
- 3.30.4.15.2 Applications
- 3.30.5 2D Materials producers and suppliers

4 REFERENCES



List Of Tables

LIST OF TABLES

Table 1. Technology Readiness Level (TRL) Examples.

Table 2. Categorization of engineered nanomaterials.

Table 3. The Global market for engineered nanomaterials in 2022-consumption, market characteristics and growth prospects.

Table 4. Global consumption of engineered nanomaterials in metric tonnes (MT), 2010-2033.

Table 5. Occupational exposure limits associated with nanomaterials.

Table 6. Life cycle assessment studies on nanomaterials.

Table 7. Nanomaterials utilized in carbon capture and utilization-advanatages & disadvantages.

Table 8. CO2 capture performance of nanomaterials sorbents.

Table 9. Market overview for aluminium oxide nanomaterials -Selling grade particle diameter, usage, advantages, high volume applications, low volume applications and novel applications.

Table 10. Markets, benefits and applications of aluminium oxide nanomaterials.

Table 11. Global consumption of aluminium oxide nanomaterials (MT), 2010-2033.

Table 12. Aluminium oxide nanomaterials Market segmentation 2022 (MT)

Table 13. Aluminium oxide nanomaterials market consumption 2031 (MT).

Table 14. Consumption of aluminium oxide nanomaterials by region 2022 (MT).

Table 15. Consumption of aluminium oxide nanomaterials by region 2033 (MT).

Table 16. Prices of aluminium oxide nanomaterials from producers & distributors.

Table 17. Aluminium oxide nanomaterials producer profiles.

Table 18. Market summary for antimony tin oxide nanomaterials-Selling grade particle diameter, usage, advantages, average price/ton, high volume applications, low volume applications and novel applications.

Table 19. Markets, benefits and applications of antimony tin oxide nanomaterials Table 20. Global consumption of antimony tin oxide nanoparticles/nanopowders, in metric tonnes, 2010-2033.

Table 21. Antimony tin oxide nanomaterials Market segmentation 2022 (MT).

Table 22. Antimony tin oxide nanomaterials market consumption 2031 (MT).

Table 23. Consumption of antimony tin oxide nanomaterials by region 2022 (MT).

Table 24. Consumption of antimony tin oxide nanomaterials by region 2033 (MT).

Table 25. Prices of antimony tin oxide nanomaterials.

Table 26. Antimony tin oxide nanomaterials/nanopowders producers and suppliers.

Table 27. Market overview bismuth oxide nanomaterials-Selling grade particle diameter,



usage, advantages, average price/ton, high volume applications, low volume applications and novel applications.

Table 28. Markets, benefits and applications of aluminium oxide nanomaterials Table 29. Global consumption of bismuth oxide nanomaterials in metric tonnes, 2010-2033.

Table 30. Bismuth oxide nanomaterials Market segmentation 2022 (MT).

- Table 31. Bismuth oxide nanomaterials Market share 2033 (MT).
- Table 32. Consumption of bismuth oxide nanomaterials by region 2022 (MT).
- Table 33. Consumption of bismuth oxide nanomaterials by region 2033(MT).
- Table 34. Prices of bismuth oxide nanomaterials.
- Table 35. Bismuth oxide nanomaterials/nanopowders producers and suppliers.

Table 36. Market overview for nanocellulose-Selling grade particle diameter, usage, advantages, average price/ton, high volume applications, low volume applications and novel applications.

- Table 37. Properties of nanocellulose, by type.
- Table 38. Markets and applications of nanocellulose.
- Table 39. Cellulose nanofibers-based commercial products.
- Table 40. CNF production capacities and production process, by producer.

Table 41. Global demand for cellulose nanofibers/MFC by market in metric tonnes, 2018-2033.

- Table 42. Cellulose nanofibers (CNF) Market segmentation 2022 (MT).
- Table 43. Cellulose nanofibers (CNF) Market share 2033 (MT).
- Table 44. Consumption of Cellulose nanofibers (CNF) by region 2022 (MT).
- Table 45. Consumption of Cellulose nanofibers (CNF) by region 2033 (MT).
- Table 46. Product/price/application matrix of cellulose nanofiber producers.
- Table 47. Nanocellulose producers.

Table 48. Market overview for cerium oxide nanomaterials-Selling grade particle diameter, usage, advantages, average price/ton, high volume applications, low volume applications and novel applications.

- Table 49. Markets, benefits and applications of cerium oxide nanomaterials.
- Table 50. Global consumption of cerium oxide nanomaterials (MT), 2010-2033.
- Table 51. Cerium oxide nanomaterials Market segmentation 2022 (MT).
- Table 52. Cerium oxide nanomaterials Market share 2033 (MT).
- Table 53. Consumption of Cerium Oxide Nanomaterials by region 2022 (MT).
- Table 54. Consumption of Cerium Oxide Nanomaterials by region 2033 (MT).
- Table 55. Prices of cerium oxide nanomaterials.
- Table 56. Cerium oxide nanomaterials and nanopowders producers and suppliers.

Table 57. Market overview for cobalt oxide nanomaterials-Selling grade particle

diameter, usage, advantages, average price/ton, high volume applications, low volume



applications and novel applications.

- Table 58. Markets, benefits and applications of cobalt oxide nanomaterials.
- Table 59. Global consumption of cobalt oxide nanomaterials (MT), 2010-2033.
- Table 60. Cobalt oxide nanomaterials Market segmentation 2022 (MT).
- Table 61. Cobalt oxide nanomaterials Market share 2033 (MT).
- Table 62. Consumption of Cobalt Oxide Nanomaterials by region 2022 (MT).
- Table 63. Consumption of Cobalt Oxide Nanomaterials by region 2033 (MT).
- Table 64. Prices of cobalt oxide nanomaterials.
- Table 65. Market overview for copper oxide nanomaterials -Selling grade particle diameter, usage, advantages, average price/ton, high volume applications, low volume applications and novel applications.
- Table 66. Markets, benefits and applications of copper oxide nanomaterials.
- Table 67. Global consumption of copper oxide nanomaterials (MT), 2010-2033.
- Table 68. Copper oxide nanomaterials Market segmentation 2022 (MT).
- Table 69. Copper oxide nanomaterials Market share 2033 (MT).
- Table 70. Consumption of copper oxide nanomaterials by region 2022 (MT).
- Table 71. Consumption of copper oxide nanomaterials by region 2033 (MT).
- Table 72. Example prices of copper oxide nanomaterials.
- Table 73. Copper and copper oxide nanomaterials and nanopowders producers and suppliers.
- Table 74. Market overview for dendrimers -Selling grade particle diameter, usage, advantages, average price/ton, high volume applications, low volume applications and novel applications.
- Table 75. Types of dendrimer.
- Table 76. Markets, benefits and applications of dendrimers.
- Table 77. Global consumption of dendrimers in metric tonnes, 2010-2033.
- Table 78. Dendrimers Market segmentation 2022 (MT).
- Table 79. Dendrimers Market share 2033 (MT).
- Table 80. Consumption of dendrimers by region 2022 (MT).
- Table 81. Consumption of dendrimers by region 2033 (MT).
- Table 82. Example prices of dendrimers.
- Table 83. Dendrimers producers.
- Table 84. Market overview for fullerenes-Selling grade particle diameter, usage,

advantages, average price/ton, high volume applications, low volume applications and novel applications.

- Table 85. Types of fullerenes and applications.
- Table 86. Products incorporating fullerenes.
- Table 87. Markets, benefits and applications of fullerenes.
- Table 88. Global consumption of fullerenes in metric tonnes, 2010-2033.



Table 89. Fullerenes Market segmentation 2022 (MT).

Table 90. Fullerenes Market share 2033 (MT).

Table 91. Consumption of fullerenes by region 2022 (MT).

Table 92. Consumption of fullerenes by region 2033 (MT).

Table 93. Example prices of fullerenes.

Table 94. Fullerene producers and suppliers.

Table 95. Market overview for gold nanomaterials-Selling grade particle diameter, usage, advantages, average price/ton, high volume applications, low volume applications and novel applications.

Table 96. Markets, benefits and applications of gold nanomaterials.

Table 97. Global consumption of gold nanoparticles in metric tonnes, 2010-2033.

Table 98. Gold nanomaterials Market segmentation 2022 (MT).

Table 99. Gold nanomaterials Market share 2033 (MT).

Table 100. Consumption of gold nanoparticles by region 2022 (MT).

Table 101. Consumption of gold nanoparticles by region 2033 (MT).

Table 102. Price of gold nanomaterials.

Table 103. Gold nanoparticle producers and suppliers.

Table 104. Market overview for graphene-Selling grade particle diameter, usage,

advantages, average price/ton, high volume applications, low volume applications and novel applications.

Table 105. Properties of graphene.

Table 106. Markets, benefits and applications of graphene.

Table 107. Products incorporating graphene.

Table 108. Main graphene producers by country, annual production capacities, types and main markets they sell into 2020.

Table 109. Consumption of graphene (tons), 2018-2033.

Table 110. Consumption of graphene by region 2022 (MT).

Table 111. Consumption of graphene by region 2033 (MT).

Table 112. Graphene types and cost per kg.

Table 113. Graphene producers and suppliers.

Table 114. Market overview for iron oxide nanomaterials-Selling grade particle diameter, usage, advantages, average price/ton, high volume applications, low volume applications and novel applications.

Table 115. Markets, benefits and applications of iron oxide nanomaterials.

Table 116. Global consumption of iron oxide nanomaterials in metric tonnes, 2010-2033.

Table 117. Iron oxide nanomaterials Market segmentation 2022 (MT).

Table 118. Iron oxide nanomaterials Market share 2033 (MT).

Table 119. Consumption of iron oxide nanomaterials by region 2022 (MT).



Table 120. Consumption of iron oxide nanomaterials by region 2033 (MT).

Table 121. Example prices of iron oxide nanomaterials.

Table 122. Iron oxide nanoparticle/nanopowder producers and suppliers.

Table 123. Market overview for magnesium oxide nanomaterials-Selling grade particle diameter, usage, advantages, average price/ton, market estimates, high volume applications, low volume applications and novel applications.

Table 124. Markets, benefits and applications of magnesium oxide nanomaterials.

Table 125. Global consumption of magnesium oxide nanomaterials in metric tonnes, 2010-2033.

Table 126. Magnesium oxide nanomaterials Market segmentation 2022 (MT).

Table 127. Magnesium oxide nanomaterials Market share 2033 (MT).

Table 128. Consumption of magnesium oxide nanomaterials by region 2022 (MT).

Table 129. Consumption of magnesium oxide nanomaterials by region 2033 (MT).

Table 130. Example prices of magnesium oxide nanomaterials/nanopowders.

Table 131. Magnesium oxid nanoparticle/nanopowder producers and suppliers.

Table 132. Market overview for manganese oxide nanomaterials-Selling grade particle diameter, usage, advantages, average price/ton, high volume applications, low volume applications and novel applications.

Table 133. Markets, benefits and applications of manganese oxide nanomaterials.

Table 134. Global consumption of manganese oxide nanomaterials in metric tonnes, 2010-2033, 2010-2033.

Table 135. Manganese oxide nanomaterials Market segmentation 2022 (MT).

Table 136. Manganese oxide nanomaterials Market share 2033 (MT).

Table 137. Consumption of manganese oxide nanomaterials by region 2022 (MT).

Table 138. Consumption of manganese oxide nanomaterials by region 2033 (MT).

Table 139. Example prices of manganese oxide nanomaterials.

Table 140. Manganese oxide nanoparticle/nanopowder producers and suppliers.

Table 141. Market overview for multi-walled carbon nanotubes-Selling grade particle diameter, usage, advantages, average price/ton, high volume applications, low volume applications and novel applications.

Table 142. Properties of multi-walled carbon nanotubes and comparable materials.

Table 143. Markets, benefits and applications of multi-walled Carbon Nanotubes (MWCNT).

Table 144. Key MWCNT producers production capacities 2021.

Table 145. MWCNT Market segmentation 2022 (MT).

Table 146. MWCNT Market share 2033 (MT).

Table 147. Consumption of MWCNT by region 2033 (MT).

Table 148. Consumption of MWCNT by region 2033 (MT).

Table 149. Carbon nanotubes pricing (MWCNTS, SWCNT etc.) by producer.



Table 150. Multi-walled carbon nanotube (MWCNT) producers and suppliers.

Table 151. Market overview for nanoclays -Selling grade particle diameter, usage, advantages, average price/ton, high volume applications, low volume applications and novel applications.

Table 152. Markets, benefits and applications of nanoclays.

Table 153. Global consumption of nanoclays in metric tonnes, 2010-2033.

- Table 154. Nanoclays Market segmentation 2022 (MT).
- Table 155. Nanoclays Market share 2033 (MT).
- Table 156. Consumption of nanoclays by region 2022 (MT).
- Table 157. Consumption of nanoclays by region 2033 (MT).
- Table 158. Example prices of nanoclays.
- Table 159. Main nanoclays producers and products.

Table 160. Market summary for nanodiamonds-Selling grade particle diameter, usage, advantages, average price/ton, high volume applications, low volume applications and novel applications.

- Table 161. Properties of nanodiamonds.
- Table 162. Markets, benefits and applications of nanodiamonds.
- Table 163. Nanodiamonds Market segmentation 2022 (MT).
- Table 164. Nanodiamonds Market share 2033 (MT).
- Table 165. Consumption of nanodiamonds by region 2022 (MT).
- Table 166. Consumption of nanodiamonds by region 2033 (MT).
- Table 167. Pricing of nanodiamonds, by producer/distributor.
- Table 168. Production methods, by main ND producers.
- Table 169. Nanodiamond producers and suppliers.

Table 170. Market summary for nanofibers- Selling grade particle diameter, advantages, average price/ton, high volume applications, low volume applications and novel applications.

- Table 171. Nanofibers types, properties and applications.
- Table 172. Electrospinning instrument manufacturers.
- Table 173. Applications of polymer, alumina, carbon and other nanofibers.
- Table 174. Global revenues for nanofibers, by market 2018-2033, millions USD.
- Table 175. Nanofibers Market segmentation 2022 (MT).
- Table 176. Nanofibers Market share 2033 (MT).
- Table 177. Consumption of Nanofibers by region 2022 (MT).
- Table 178. Consumption of Nanofibers by region 2033 (MT).
- Table 179. Nanofibers producers.

Table 180. Market overview for nanosilver-Selling grade particle diameter, usage, advantages, average price/ton, high volume applications, low volume applications and novel applications.



Table 181. Markets, benefits and applications of nanosilver.

Table 182. Global consumption of nanosilver in metric tonnes, 2010-2033.

Table 183. Nanosilver Market segmentation 2022 (MT).

Table 184. Nanosilver Market share 2033 (MT).

Table 185. Consumption of nanosilver by region 2022 (MT).

Table 186. Consumption of nanosilver by region 2033 (MT).

Table 187. Prices of nanosilver.

Table 188. Nanosilver producers.

Table 189. Market overview for nickel nanomaterials -Selling grade particle diameter, usage, advantages, average price/ton, high volume applications, low volume applications and novel applications.

Table 190. Markets, benefits and applications of nickel nanomaterials.

Table 191. Global consumption of nickel nanomaterials in metric tonnes, 2010-2033.

Table 192. Nickel nanomaterials Market segmentation 2022 (MT).

Table 193. Nickel nanomaterials Market share 2033 (MT).

Table 194. Consumption of nickel nanomaterials by region 2022 (MT).

Table 195. Consumption of nickel nanomaterials by region 2033 (MT).

Table 196. Example prices of nickel nanomaterials.

Table 197. Nickel nanoparticle/nanopowders producers and suppliers.

Table 198. Market overview for quantum dots -Selling grade particle diameter, usage, advantages, average price/ton, high volume applications, low volume applications and novel applications.

Table 199. Markets, benefits and applications of quantum dots.

Table 200. Quantum dot display products.

Table 201. Global consumption of quantum dots in metric tonnes, 2018-2033.

Table 202. Quantum dots Market segmentation 2022 (MT).

Table 203. Quantum dots Market share 2033 (MT).

Table 204. Consumption of quantum dots by region 2022 (MT).

Table 205. Consumption of quantum dots by region 2033 (MT).

Table 206. Example prices of quantum dots.

Table 207. Quantum dot producers and suppliers.

Table 208. Market overview for silicon oxide nanomaterials-Selling grade particle diameter, usage, advantages, average price/ton, high volume applications, low volume applications and novel applications.

Table 209. Markets, benefits and applications of silicon oxide nanomaterials.

Table 210. Global consumption of silicon oxide nanomaterials in metric tonnes, 2010-2033

Table 211. Silicon oxide nanomaterials Market segmentation 2022 (MT).

Table 212. Silicon oxide nanomaterials Market share 2033 (MT).



Table 213. Consumption of silicon oxide nanomaterials by region 2022 (MT).

Table 214. Consumption of silicon oxide nanomaterials by region 2033 (MT).

Table 215. Example prices of silicon oxide nanomaterials.

Table 216. Silicon oxide nanomaterials/nanopowders producers and suppliers.

Table 217. Market overview for single-walled carbon nanotubes-Selling grade particle diameter, usage, advantages, average price/ton, high volume applications, low volume applications and novel applications.

Table 218. Properties of single-walled carbon nanotubes.

Table 219. Typical properties of SWCNT and MWCNT.

Table 220. Markets, benefits and applications of single-walled Carbon Nanotubes.

Table 221. SWCNT prices.

Table 222. Annual production capacity of the key SWCNT producers,

Table 223. Global consumption of SWCNTs in metric tonnes, 2018-2033.

Table 224. SWCNT producers.

Table 225. Market overview for titanium dioxide nanomaterials -Selling grade particle diameter, usage, advantages, average price/ton, high volume applications, low volume applications and novel applications.

Table 226. Markets, benefits and applications of titanium dioxide nanomaterials.

Table 227. Global consumption of titanium dioxide nanomaterials in metric tonnes, 2010-2033.

Table 228. Titanium dioxide nanomaterials Market segmentation 2022 (MT).

Table 229. Titanium dioxide nanomaterials Market share 2033 (MT).

Table 230. Consumption of titanium dioxide nanomaterials by region 2022 (MT).

Table 231. Consumption of titanium dioxide nanomaterials by region 2033 (MT).

Table 232. Titanium dioxide nanomaterials/nanopowders producers and suppliers.

Table 233. Market overview for zinc oxide nanomaterials-Selling grade particle diameter, usage, advantages, average price/ton, high volume applications, low volume applications and novel applications.

Table 234. Markets and applications for zinc oxide nanomaterials.

Table 235. Main Zinc oxide nanomaterials-Suppliers, products, primary particle size.

Table 236. Global consumption of zinc oxide nanomaterials in metric tonnes,

2010-2033.

Table 237. ZInc oxide nanomaterials Market segmentation 2022 (MT).

Table 238. ZInc oxide nanomaterials Market share 2033 (MT).

Table 239. Consumption of zinc oxide nanomaterials by region 2022 (MT).

Table 240. Consumption of zinc oxide nanomaterials by region 2033 (MT).

Table 241. Zinc oxide nanoparticle/nanopowder producers and suppliers,

Table 242. Market overview for zirconium oxide nanomaterials-Selling grade particle diameter, usage, advantages, average price/ton, high volume applications, low volume



applications and novel applications.

Table 243. Markets, benefits and applications of zirconium oxide nanomaterials.

Table 244. Global consumption of zirconium oxide nanomaterials in metric tons, 2010-2033.

- Table 245. Zirconium oxide nanomaterials Market segmentation 2022 (MT).
- Table 246. Zirconium oxide nanomaterials Market share 2033 (MT).
- Table 247. Consumption of zirconium oxide nanomaterials by region 2022 (MT).
- Table 248. Consumption of zirconium oxide nanomaterials by region 2033 (MT).
- Table 249. Prices of zirconium oxide nanomaterials.
- Table 250. Zirconium oxide nanomaterials/nanopowders producers and suppliers.
- Table 251. Summary of MOFs.
- Table 252. Applications of MOFs in gas storage and separation.
- Table 253. Biomedical applications of MOFs.
- Table 254. MOF sensor applications.
- Table 255. Metal-Organic Frameworks (MOFs) producers.
- Table 256. Synthesis methods for cellulose nanocrystals (CNC).
- Table 257. CNC sources, size and yield.
- Table 258. CNC properties.
- Table 259. Mechanical properties of CNC and other reinforcement materials.
- Table 260. Applications of cellulose nanocrystals (CNC).
- Table 261. Product/price/application matrix of cellulose nanocrystal producers.
- Table 262: Cellulose nanocrystal production capacities and production process, by producer.
- Table 263. Cellulose nanocrystal producers.
- Table 264. Applications of bacterial nanocellulose (BNC).
- Table 265. Bacterial nanocellulose producers.
- Table 266. Comparative properties of BNNTs and CNTs.
- Table 267. Applications of BNNTs.
- Table 268. BNNT pricing by producer.
- Table 269. Boron nitride nanotubes producers.

Table 270. Erbium oxide nanoparticles/nanopowders-Properties, applications, prices and producers.

- Table 271. Indium oxide nanomaterials-Properties, applications, prices and producers.
- Table 272. Molybdenum nanomaterials-Properties, applications, prices and producers.
- Table 273. Comparative properties of conventional QDs and Perovskite QDs.
- Table 274. Applications of perovskite QDs.
- Table 275. Development roadmap for perovskite QDs.
- Table 276. Properties of perovskite QLEDs comparative to OLED and QLED.
- Table 277, Perovskite-based QD producers.



- Table 278. Comparison of graphene QDs and semiconductor QDs.
- Table 279. Advantages and disadvantages of methods for preparing GQDs.
- Table 280. Applications of graphene quantum dots.
- Table 281. Graphene quantum dots companies.
- Table 282. 2D materials types.
- Table 283. Comparative analysis of graphene and other 2-D nanomaterials.
- Table 284. Comparison of top-down exfoliation methods to produce 2D materials.
- Table 285. Comparison of the bottom-up synthesis methods to produce 2D materials.
- Table 286. Properties of hexagonal boron nitride (h-BN).
- Table 287. Electronic and mechanical properties of monolayer phosphorene, graphene and MoS2.
- Table 288. Properties and applications of functionalized germanene.
- Table 289. GDY-based anode materials in LIBs and SIBs
- Table 290. Physical and electronic properties of Stanene.
- Table 291. 2D materials producers and suppliers.



List Of Figures

LIST OF FIGURES

Figure 1. Synthesis of nanomaterials via top-down and bottom-up approaches.

Figure 2. Global production volume of engineered nanomaterials in metric tonnes (MT), 2010-2033.

Figure 3. Transportation pathways of natural and artificial (incidental and engineered).

Figure 4. Engineered nanomaterials life cycle.

Figure 5. Technology Readiness Level for aluminium oxide nanoparticles/nanopowders.

Figure 6. Global consumption of aluminium oxide nanopowders/particles (MT), 2010-2033.

Figure 7. Aluminium oxide nanomaterials Market segmentation 2022 (%).

Figure 8. Aluminium oxide nanomaterials Market segmentation 2033 (%).

Figure 9. Consumption of aluminium oxide nanomaterials by region 2022 (%).

Figure 10. Consumption of aluminium oxide nanomaterials by region 2033 (%).

Figure 11. Stage of commercial development for Antimony Tin Oxide Nanomaterials.

Figure 12. Global consumption of antimony tin oxide nanoparticles/nanopowders, in metric tonnes, 2010-2033.

Figure 13. Antimony tin oxide nanomaterials Market segmentation 2022 (%).

Figure 14. Antimony tin oxide nanomaterials Market share 2033 (%).

Figure 15. Consumption of antimony tin oxide nanomaterials by region 2022 (%).

Figure 16. Consumption of antimony tin oxide nanomaterials by region 2033 (%).

Figure 17. Technology Readiness Level (TRL) for Bismuth Oxide Nanomaterials.

Figure 18. Global consumption of bismuth oxide nanomaterials in metric tonnes, 2010-2033.

Figure 19. Bismuth oxide nanomaterials Market segmentation 2022 (%).

Figure 20. Bismuth oxide nanomaterials Market share 2033 (%).

Figure 21. Consumption of bismuth oxide nanomaterials by region 2022 (%).

Figure 22. Consumption of bismuth oxide nanomaterials by region 2033 (%).

Figure 23. Dorayaki.

Figure 24. ENASAVE NEXT.

Figure 25. GEL-KAYANO™.

Figure 26. Kirekira! toilet wipes.

Figure 27. 'Poise' series Super strong deodorant sheet.

Figure 28. SC-3 (B) speakers.

Figure 29. SE-MONITOR5 headphones.

Figure 30. 'Skin Care Acty' series Adult diapers.

Figure 31. 'SURISURI' Lotion.



Figure 32. Technology Readiness Level (TRL) for nanocellulose.

Figure 33. Global demand for cellulose nanofibers/MFC in metric tonnes by market, 2018-2033.

Figure 34. Cellulose nanofibers (CNF) Market segmentation 2022 (%).

Figure 35. Cellulose nanofibers (CNF) Market share 2033 (%).

Figure 36. Consumption of Cellulose nanofibers (CNF) by region 2022 (%)

Figure 37. Consumption of Cellulose nanofibers (CNF) by region 2033 (%)

Figure 38. Technology Readiness Level (TRL)) for cerium oxide nanomaterials.

Figure 39. Global consumption of cerium oxide nanomaterials (MT), 2010-2033.

Figure 40. Cerium oxide nanomaterials Market segmentation 2022 (%)

Figure 41. Cerium oxide nanomaterials Market share 2033 (%)

Figure 42. Consumption of Cerium Oxide Nanomaterials by region 2022 (%).

Figure 43. Consumption of Cerium Oxide Nanomaterials by region 2033 (%).

Figure 44. Technology Readiness Level (TRL) for Cobalt Oxide Nanomaterials.

Figure 45. Global consumption of cobalt oxide nanomaterials (MT), 2010-2033.

Figure 46. Cobalt oxide nanomaterials Market segmentation 2022 (%).

Figure 47. Cobalt oxide nanomaterials Market share 2033 (%).

Figure 48. Consumption of Cobalt Oxide Nanomaterials by region 2022 (%).

Figure 49. Consumption of Cobalt Oxide Nanomaterials by region 2033 (%).

Figure 50. Cobalt oxide nanomaterials and nanopowders producers and suppliers.

Figure 51. Technology Readiness Level (TRL) for copper oxide nanomaterials.

Figure 52. Global consumption of copper oxide nanomaterials (MT), 2010-2033.

Figure 53. Copper oxide nanomaterials Market segmentation 2022 (%).

Figure 54. Copper oxide nanomaterials Market share 2033 (%).

Figure 55. Consumption of copper oxide nanomaterials by region 2022 (%).

Figure 56. Consumption of copper oxide nanomaterials by region 2022 (%).

Figure 57. Dendrimer structure.

Figure 58. Dendrimer schematic for application in biomedicine.

Figure 59. Technology Readiness Level (TRL) for dendrimers.

Figure 60. Global consumption of dendrimers in metric tonnes, 2010-2033.

Figure 61. Dendrimers Market segmentation 2022 (%).

Figure 62. Dendrimers Market share 2033 (%).

Figure 63. Consumption of dendrimers by region 2022 (%)

Figure 64. Consumption of dendrimers by region 2033 (%)

Figure 65. Technology Readiness Level (TRL) for fullerenes.

Figure 66. Global consumption of fullerenes in metric tonnes, 2010-2033.

Figure 67. Fullerenes Market segmentation 2022 (%).

Figure 68. Fullerenes Market share 2033 (%).

Figure 69. Consumption of fullerenes by region 2022 (%).



Figure 70. Consumption of fullerenes by region 2033 (%).

- Figure 71. Technology Readiness Level (TRL) for gold nanomaterials.
- Figure 72. Global consumption of gold nanoparticles in metric tonnes, 2010-2033.
- Figure 73. Gold nanomaterials Market segmentation 2022 (%).
- Figure 74. Gold nanomaterials Market share 2033 (%).
- Figure 75. Consumption of gold nanoparticles by region 2022 (%).
- Figure 76. Consumption of gold nanoparticles by region 2033 (%).
- Figure 77. Technology Readiness Level (TRL) for graphene.
- Figure 78. Consumption of graphene, 2018-2033, tons.
- Figure 79. Graphene Market segmentation 2022 (%)
- Figure 80. Graphene Market share 2033 (%)
- Figure 81. Consumption of graphene by region 2022 (%).
- Figure 82. Consumption of graphene by region 2033 (%)
- Figure 83. Technology Readiness Level (TRL) for iron oxide nanomaterials.
- Figure 84. Global consumption of iron oxide nanomaterials in metric tonnes, 2010-2033.
- Figure 85. Iron oxide nanomaterials Market segmentation 2022 (%)
- Figure 86. Iron oxide nanomaterials Market share 2033 (%).
- Figure 87. Consumption of iron oxide nanomaterials by region 2022 (%)
- Figure 88. Consumption of iron oxide nanomaterials by region 2033 (%).
- Figure 89. Technology Readiness Level (TRL) for magnesium oxide nanomaterials.

Figure 90. Global consumption of magnesium oxide nanomaterials in metric tonnes, 2010-2033.

- Figure 91. Magnesium oxide nanomaterials Market segmentation 2022 (%).
- Figure 92. Magnesium oxide nanomaterials Market share 2033 (%).
- Figure 93. Consumption of magnesium oxide nanomaterials by region 2022 (%).
- Figure 94. Consumption of magnesium oxide nanomaterials by region 2033 (%).
- Figure 95. Technology Readiness Level (TRL) for manganese oxide nanomaterials.

Figure 96. Global consumption of manganese oxide nanomaterials in metric tonnes, 2010-2033.

- Figure 97. Manganese oxide nanomaterials Market segmentation 2022 (%).
- Figure 98. Manganese oxide nanomaterials Market share 2033(%)
- Figure 99. Consumption of manganese oxide nanomaterials by region 2022 (%).
- Figure 100. Consumption of manganese oxide nanomaterials by region 2033 (%).

Figure 101. Technology Readiness Level (TRL) for multi-walled Carbon Nanotubes by application.

Figure 102. Global consumption of multi-walled carbon nanotubes in metric tonnes, 2010-2033.

Figure 103. MWCNT Market segmentation 2022 (%)

Figure 104. MWCNT Market share 2033 (%)



- Figure 105. Consumption of MWCNT by region 2022 (%).
- Figure 106. Consumption of MWCNT by region 2033 (%).
- Figure 107. Technology Readiness Level (TRL) for nanoclays.
- Figure 108. Global consumption of nanoclays in metric tonnes, 2010-2033.
- Figure 109. Nanoclays Market segmentation 2022 (%).
- Figure 110. Nanoclays Market share 2033(%).
- Figure 111. Consumption of nanoclays by region 2022 (%).
- Figure 112. Consumption of nanoclays by region 2033 (%).
- Figure 113. Detonation Nanodiamond.
- Figure 114. DND primary particles and properties.
- Figure 115. Functional groups of Nanodiamonds.
- Figure 116. Technology Readiness Level (TRL) for nanodiamonds.
- Figure 117. Global consumption of nanodiamonds in metric tonnes, 2010-2033
- Figure 118. Nanodiamonds Market segmentation 2022 (%)
- Figure 119. Nanodiamonds Market share 2033 (%)
- Figure 120. Consumption of nanodiamonds by region 2022 (%).
- Figure 121. Consumption of nanodiamonds by region 2033 (%).
- Figure 122. Technology Readiness Level (TRL) for nanofibers.
- Figure 123. Global revenues for nanofibers, by market 2018-2033, millions USD.
- Figure 124. Nanofibers Market segmentation 2022 (%)
- Figure 125. Nanofibers Market share 2033 (%)
- Figure 126. Consumption of Nanofibers by region 2022 (%).
- Figure 127. Consumption of Nanofibers by region 2033 (%).
- Figure 128. Supply chain for nanosilver products.
- Figure 129. Technology Readiness Level (TRL) for nanosilver.
- Figure 130. Global consumption of nanosilver in metric tonnes, 2010-2033.
- Figure 131. Nanosilver Market segmentation 2022 (%).
- Figure 132. Nanosilver Market share 2033(%)
- Figure 133. Consumption of nanosilver by region 2022 (%).
- Figure 134. Consumption of nanosilver by region 2033 (%).
- Figure 135. Technology Readiness Level (TRL) for nickel nanomaterials.
- Figure 136. Global consumption of nickel nanomaterials in metric tonnes, 2010-2033.
- Figure 137. Nickel nanomaterials Market segmentation 2022 (%).
- Figure 138. Nickel nanomaterials Market share 2033 (%).
- Figure 139. Consumption of nickel nanomaterials by region 2022 (%).
- Figure 140. Consumption of nickel nanomaterials by region 2033 (%)
- Figure 141. Technology Readiness Level (TRL) for quantum dots.
- Figure 142. Global consumption of quantum dots in metric tonnes, 2018-2033.
- Figure 143. Quantum dots Market segmentation 2022 (%).



Figure 144. Quantum dots Market share 2033 (%)

Figure 145. Consumption of quantum dots by region 2022 (%)

Figure 146. Consumption of quantum dots by region 2033 (%)

Figure 147. Technology Readiness Level (TRL) for silicon oxide nanomaterials.

Figure 148. Global consumption of silicon oxide nanomaterials in metric tonnes, 2010-2033

Figure 149. Silicon oxide nanomaterials Market segmentation 2022 (%).

Figure 150. Silicon oxide nanomaterials Market share 2033 (%).

Figure 151. Consumption of silicon oxide nanomaterials by region 2022 (%).

Figure 152. Consumption of silicon oxide nanomaterials by region 2033 (%).

Figure 153. Technology Readiness Level (TRL) for Single-walled Carbon Nanotubes.

Figure 154. SWCNT market demand forecast (metric tons), 2018-2033.

Figure 155. Technology Readiness Level (TRL) for Titanium Oxide Nanomaterials.

Figure 156. Global consumption of titanium dioxide nanomaterials in metric tonnes, 2010-2033.

Figure 157. Titanium dioxide nanomaterials Market segmentation 2022 (%).

Figure 158. Titanium dioxide nanomaterials Market share 2033 (%).

Figure 159. Consumption of titanium dioxide nanomaterials by region 2022 (%).

- Figure 160. Consumption of titanium dioxide nanomaterials by region 2033 (%).
- Figure 161. Technology Readiness Level (TRL) for zinc oxide nanomaterials.

Figure 162. Global consumption of zinc oxide nanomaterials in metric tonnes, 2010-2033.

Figure 163. Zinc oxide nanomaterials Market segmentation 2022 (%).

- Figure 164. Zinc oxide nanomaterials Market share 2033 (%).
- Figure 165. Consumption of zinc oxide nanomaterials by region 2022 (%).
- Figure 166. Consumption of zinc oxide nanomaterials by region 2033 (%).

Figure 167. Technology Readiness Level (TRL) for zirconium oxide nanomaterials.

Figure 168. Global consumption of zirconium oxide nanomaterials in metric tons, 2010-2033.

Figure 169. Zirconium oxide nanomaterials Market segmentation 2022 (%).

Figure 170. Zirconium oxide nanomaterials Market share 2033 (%).

Figure 171. Consumption of zirconium oxide nanomaterials by region 2022 (%)

- Figure 172. Consumption of zirconium oxide nanomaterials by region 2033 (%).
- Figure 173. Examples of typical metal?organic frameworks.

Figure 174. Schematic drawing of a metal–organic framework (MOF) structure.

- Figure 175. Number of synthesized MOFs reported per year .
- Figure 176. MOF synthesis methods.
- Figure 177. MOF synthesis methods historically.
- Figure 178. Schematic representation of carbon nanohorns.



Figure 179. Schematic illustration of three-chamber system for SWCNH production.

Figure 180. TEM image of cellulose nanocrystals.

Figure 181. CNC preparation.

Figure 182. Extracting CNC from trees.

Figure 183. CNC slurry.

Figure 184: Schematic of Boron Nitride nanotubes (BNNTs). Alternating B and N atoms are shown in blue and red.

Figure 185. A pQLED device structure.

Figure 186. Perovskite quantum dots under UV light.

Figure 187: Green-fluorescing graphene quantum dots.

Figure 188. Schematic of (a) CQDs and (c) GQDs. HRTEM images of (b) C-dots and (d)

GQDs showing combination of zigzag and armchair edges (positions marked as 1–4).

Figure 189. Graphene quantum dots.

Figure 190. Top-down and bottom-up methods.

Figure 191. Structures of nanomaterials based on dimensions.

Figure 192. Schematic of 2-D materials.



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