

Cerium Oxide Nanoparticles Market by Application (Energy Storage, Polishing, Catalyst, Personal Care & Cosmetic Products, Biomedical and Others) - Global Opportunity Analysis and Industry Forecast, 2014 - 2022

https://marketpublishers.com/r/C49F8212568EN.html

Date: September 2016

Pages: 95

Price: US\$ 3,999.00 (Single User License)

ID: C49F8212568EN

Abstracts

Cerium is the most abundant of rare earth metals found in the earth's crust. Several cerium-carbonate, -phosphate, -silicate, and -(hydr)oxide minerals have been historically mined and processed for industrial as well as pharmaceutical applications. Cerium is found in a variety of mineral classes such as phosphates, carbonates, silicates, oxides and hydroxides. Main sources of industrial cerium include the phosphate mineral monazite and the carbonate mineral bastnasite. Cerium oxide nanoparticle can be synthesized by a number of techniques such as solvothermal, hydrothermal, aqueous precipitation, thermal decomposition, reversed micelles and flame spray methods, while maintaining control of its size and properties. Cerium oxide nanoparticle are used in environmental monitoring and remediation due to their novel chemical and physical attributes, to counteract environmental pollution. Heavy investment in R&D activities by government organizations is expected to propel the market growth. However, extended research timelines incur high cost to companies, which restricts the growth of the market. The report segments the world cerium oxide nanoparticles market based on application and region. On the basis of application, the market is segmented into energy storage, polishing, catalyst, personal care & cosmetic products, biomedical and others. Furthermore, the report is segmented based on four regions, namely, North America, Europe, Asia-Pacific, and LAMEA. Geographic breakdown and analysis of each of the aforementioned applications is included for North America, Europe, Asia-Pacific, and LAMEA.

Business agreements, collaboration and product launch are the leading strategies adopted by key players to strengthen their geographical outreach. PlasmaChem GmbH,



Melorium Technologies, Inc., and Nanophase Technologies Corporation are the major companies who have adopted collaborations, supply and manufacturing agreements, and product launch as their key business strategy. The market players profiled in this report are cerium oxide nanoparticles manufacturers who either use it internally in some applications, or supply it to other end-users in the industry. Comprehensive competitive analysis and profiles of major market players in the report are:

Strem Chemicals, Inc.

PlasmaChem GmbH

Advanced Nano Products Co. Ltd.

Meliorum Technologies, Inc.

Skyspring Nanomaterials, Inc.

Nanophase Technologies Corporation

American Elements

Inframat Advanced Materials

NYACOL Nano Technologies, Inc.

Nanostructured & Amorphous Materials, Inc.

Other players in the value chain include Reinste Nano Ventures Pvt. Ltd., and EPRUI Nanoparticles & Microspheres Co. Ltd., Ionic Liquids Technologies Inc., Chengdu Alpha Nano Technology Co., Ltd. and Nanocerox, Inc.

KEY MARKET BENEFITS:

The study provides an in-depth quantitative analysis of the world cerium oxide nanoparticles market with current trends and future estimations to elucidate the imminent investment pockets.



The report provides the quantitative analysis of the current market and estimations through 2014–2022 to identify the prevailing market opportunities to capitalize on.

Extensive analysis of application forecasts the various types of cerium oxide nanoparticles that can be used in different end-user applications.

Competitive analysis highlights the business practices followed by leading players across various regions.

An in-depth analysis of current research and clinical developments that affect the market behavior.

Comprehensive analysis of all geographic regions are provided that determines the prevailing opportunities there.

Analysis of key market players and their strategies are discussed to identify the competitive outlook.

KEY MARKET SEGMENT:

The world Cerium oxide nanoparticles market is segmented based on Application, method of synthesis, and geography.

By Application

Energy Storage
Polishing

Catalyst

Personal Care & Cosmetic Products

Biomedical

Others

By Geography



North AmericaU.S. Canada Mexic Europe Germany UK France Italy Spain Rest of EuropeAsia-Pacific Japan China Taiwan South Korea Rest of Asia-Pacific LAMEA Brazil Argentina

Rest of LAMEA

South Africa







Contents

CHAPTER 1 INTRODUCTION

- 1.1 Report description
- 1.2 KEY MARKET BENEFITS
- 1.3 KEY MARKET SEGMENTS
- 1.4 Research methodology

CHAPTER 2 EXECUTIVE SUMMARY

2.1 CXO perspective

CHAPTER 3 MARKET OVERVIEW

- 3.1 Market definition and scope
- 3.2 Key findings
 - 3.2.1 Top Investment Pockets
 - 3.2.2 Top winning strategy
- 3.3 Value chain analysis
- 3.4 Porters five forces analysis
 - 3.4.1 Bargaining power of the supplier
 - 3.4.2 Bargaining power of the buyer
 - 3.4.3 Threat of substitute
 - 3.4.4 Competitive rivalry
 - 3.4.5 Threat of new entrants
- 3.5 Market dynamics
 - 3.5.1 Drivers
 - 3.5.1.1 Government funding & support for nanomaterials to serve the potential growth
 - 3.5.1.2 Collaborations & strategic alliances
 - 3.5.1.3 Decrease in price of Cerium Oxide Nanoparticle
 - 3.5.2 Restraints
- 3.5.2.1 Growing concerns over environmental impact and toxicity of Cerium Oxide Nanoparticle
 - 3.5.2.2 High processing cost coupled with stringent environmental regulations
 - 3.5.3 Opportunities
 - 3.5.3.1 Significant opportunities in end-user industries
 - 3.5.3.2 advancement of technologies coupled with growing R&D activities
- 3.6 Regulatory Framework: Cerium Oxide Nanoparticles Market



- 3.6.1 NORTH AMERICA
- **3.6.2 EUROPE**
- 3.6.3 AUSTRALIA
- 3.7 Emerging Trends in Cerium Oxide Nanoparticles Market

CHAPTER 4 WORLD CERIUM OXIDE NANOPARTICLES MARKET, BY APPLICATION

- 4.1 Introduction
 - 4.1.1 Market size and forecast
- 4.2 Energy Storage
 - 4.2.1 Market size and forecast
- 4.3 Polishing
 - 4.3.1 Market size and forecast
- 4.4 Catalyst
 - 4.4.1 Market size and forecast
- 4.5 Personal Care & Cosmetic Products
 - 4.5.1 Market size and forecast
- 4.6 Biomedical
 - 4.6.1 Market size and forecast
- 4.7 Others
 - 4.7.1 Market size and forecast

CHAPTER 5 WORLD CERIUM OXIDE NANOPARTICLES MARKET, BY REGION

- 5.1 Introduction
 - 5.1.1 Market size and forecast
- 5.2 North America
 - 5.2.1 Key market trends
 - 5.2.2 Key growth factors and opportunities
 - 5.2.3 Market Size and Forecast
 - 5.2.4 U.S.
 - 5.2.5 Canada
 - 5.2.6 Mexico
- 5.3 Europe
 - 5.3.1 Key market trends
 - 5.3.2 Key growth factors and opportunities
 - 5.3.3 Market Size and Forecast
 - 5.3.4 U.K.



- 5.3.5 Germany
- 5.3.6 France
- 5.3.7 Spain
- 5.3.8 Italy
- 5.3.9 Rest of Europe
- 5.4 Asia-Pacific
 - 5.4.1 Key market trends
 - 5.4.2 Key growth factors and opportunities
 - 5.4.3 Market Size and Forecast
 - 5.4.4 China
 - 5.4.5 Japan
 - 5.4.6 Korea
 - 5.4.7 Taiwan
 - 5.4.8 Rest of Asia-Pacific
- 5.5 LAMEA
 - 5.5.1 Key market trends
 - 5.5.2 Key growth factors and opportunities
 - 5.5.3 Market Size and Forecast
 - 5.5.4 Brazil
 - 5.5.5 Argentina
 - 5.5.6 South Africa
 - 5.5.7 Rest of LAMEA

CHAPTER 6 COMPANY PROFILE

- 6.1 Strem Chemicals, Inc.
 - 6.1.1 Company Overview
 - 6.1.2 Company Snapshot
 - 6.1.3 Operating Business Segments
- 6.2 Advanced Nano Products Co., Ltd.
 - 6.2.1 Company Overview
 - 6.2.2 Company Snapshot
 - 6.2.3 Operating Business Segments
- 6.3 Inframat Corporation
 - 6.3.1 Company Overview
 - 6.3.2 Company Snapshot
 - 6.3.3 Operating Business Segments
- 6.4 Nanophase Technologies Corporation
 - 6.4.1 Company Overview



- 6.4.2 Company Snapshot
- 6.4.3 Operating Business Segments
- 6.4.4 Business Performance
- 6.4.5 Key Strategic Moves And Developments
- 6.5 American Elements
 - 6.5.1 Company overview
 - 6.5.2 Application served
 - 6.5.3 Company Snapshot
 - 6.5.4 Operating Business Segments
 - 6.5.5 Operating Business Segments
- 6.6 Meliorum Technologies, Inc.
 - 6.6.1 Company Overview
 - 6.6.2 Company Snapshot
 - 6.6.3 Operating Business Segments
 - 6.6.4 Key Strategic Moves and Developments
- 6.7 SkySpring Nanomaterials, Inc.
 - 6.7.1 Company Overview
 - 6.7.2 Company Snapshot
 - 6.7.3 Operating Business Segments
- 6.8 Nanostructured & Amorphous Materials, Inc.
 - 6.8.1 Company Overview
 - 6.8.2 Company Snapshot
 - 6.8.3 Operating Business Segments
- 6.9 PlasmaChem GmbH
 - 6.9.1 Company Overview
 - 6.9.2 Company Snapshot
 - 6.9.3 Operating Business Segments
 - 6.9.4 Key Strategic Moves and Developments
- 6.10 NYACOL Nano Technologies, Inc.
 - 6.10.1 Company Overview
 - 6.10.2 Company Snapshot
 - 6.10.3 Operating Business Segments

OTHER MARKET PLAYERS ACTIVE IN THE VALUE CHAIN

Reinste Nano Ventures Pvt. Ltd.

EPRUI Nanoparticles & Microspheres Co. Ltd.

Ionic Liquids Technologies Inc.

Chengdu Alpha Nano Technology Co., Ltd.

Nanocerox, Inc.

Profiles of these players are not included. The same will be included on request







List Of Tables

LIST OF TABLES

TABLE 1. ONGOING PROJECTS IN NANOELECTRONICS INDUSTRY

TABLE 2. WORLD CERIUM OXIDE NANOPARTICLES MARKET, BY APPLICATION, 2014-2022 (\$MILLION)

TABLE 3. WORLD CERIUM OXIDE NANOPARTICLES MARKET, BY APPLICATION, 2014-2022 (TONS)

TABLE 4. WORLD CERIUM OXIDE NANOPARTICLES, BY ENERGY STORAGE SEGMENT, BY REGION, 2014-2022 (\$MILLION)

TABLE 5. WORLD CERIUM OXIDE NANOPARTICLES, BY ENERGY STORAGE SEGMENT, BY REGION, 2014-2022 (TONS)

TABLE 6. WORLD NANO CERIUM OXIDE NANOPARTICLES MARKET, BY POLISHING SEGMENT, BY REGION, 2014-2022 (\$MILLION)

TABLE 7. WORLD NANO CERIUM OXIDE NANOPARTICLES MARKET, BY POLISHING SEGMENT, BY REGION, 2014-2022 (TONS)

TABLE 8. WORLD CERIUM OXIDE NANOPARTICLES MARKET, BY CATALYST SEGEMNT, BY REGION, 2014-2022 (\$MILLION)

TABLE 9. WORLD CERIUM OXIDE NANOPARTICLES MARKET, BY CATALYST SEGEMNT, BY REGION, 2014-2022 (TONS)

TABLE 10. WORLD CERIUM OXIDE NANOPARTICLES MARKET, BY PERSONAL CARE & COSMETIC PRODUCTS SEGMENT, BY REGION, 2014-2022 (\$MILLION)

TABLE 11. WORLD CERIUM OXIDE NANOPARTICLES MARKET, BY BIOMEDICAL SEGMENT, BY REGION, 2014-2022 (TONS)

TABLE 12. WORLD CERIUM OXIDE NANOPARTICLES MARKET, BY BIOMEDICAL SEGMENT, BY REGION, 2014-2022 (\$MILLION)

TABLE 13. WORLD CERIUM OXIDE NANOPARTICLES MARKET, BY BIOMEDICAL SEGMENT, BY REGION, 2014-2022 (TONS)

TABLE 14. WORLD CERIUM OXIDE NANOPARTICLES MARKET, BY OTHERS SEGMENT, BY REGION, 2014-2022 (\$MILLION)

TABLE 15. WORLD CERIUM OXIDE NANOPARTICLES MARKET, BY OTHERS SEGMENT, BY REGION, 2014-2022 (TONS)

TABLE 16. WORLD CERIUM OXIDE NANOPARTICLES MARKET, BY REGION, 2014-2022 (\$MILLION)

TABLE 17. WORLD CERIUM OXIDE NANOPARTICLES MARKET, BY REGION, 2014-2022 (TONS)

TABLE 18. NORTH AMERICA CERIUM OXIDE NANOPARTICLES MARKET, BY APPLICATION, 2014-2022 (\$MILLION)



TABLE 19. NORTH AMERICA CERIUM OXIDE NANOPARTICLES MARKET, BY APPLICATION, 2014-2022 (TONS)

TABLE 20. EUROPE CERIUM OXIDE NANOPARTICLES MARKET, BY APPLICATION, 2014-2022 (\$MILLION)

TABLE 21. EUROPE CERIUM OXIDE NANOPARTICLES MARKET, BY APPLICATION, 2014-2022 (TONS)

TABLE 22. ASIA-PACIFIC CERIUM OXIDE NANOPARTICLES MARKET, BY APPLICATION, 2014-2022 (\$MILLION)

TABLE 23. ASIA-PACIFIC CERIUM OXIDE NANOPARTICLES MARKET, BY APPLICATION, 2014-2022 (TONS)

TABLE 24. LAMEA CERIUM OXIDE NANOPARTICLES MARKET, BY APPLICATION, 2014-2022 (\$MILLION)

TABLE 25. LAMEA CERIUM OXIDE NANOPARTICLES MARKET, BY APPLICATION, 2014-2022 (TONS)

TABLE 26. STREM CHEMICAL, INC.: COMPANY SNAPSHOT

TABLE 27. STREM CHEMICAL, INC.: OPERATING SEGMENTS

TABLE 28. ADVANCED NANO PRODUCTS CO., LTD. PRODUCTS: COMPANY SNAPSHOT

TABLE 29. ADVANCED NANO PRODUCTS CO., LTD.: OPERATING SEGMENTS

TABLE 30. MELORIUM TECHNOLOGIES, INC.: COMPANY SNAPSHOT

TABLE 31. MELORIUM TECHNOLOGIES, INC.: OPERATING SEGMENTS

TABLE 32. CNANO TECHNOLOGY - COMPANY SNAPSHOT

TABLE 33. SKYSPRING NANOMATERIALS, INC.- OPERATING SEGMENTS

TABLE 34. NANOSTRUCTURED & AMORPHOUS MATERIALS, INC.: COMPANY SNAPSHOT

TABLE 35. NANOSTRUCTURED & AMORPHOUS MATERIALS, INC. - OPERATING SEGMENTS

TABLE 36. PLASMACHEM GMBH: COMPANY SNAPSHOT

TABLE 37. PLASMACHEM GMBH - OPERATING SEGMENTS

TABLE 38. NYACOL NANO TECHNOLOGIES, INC.: COMPANY SNAPSHOT

TABLE 39. NYACOL NANO TECHNOLOGIES, INC.; OPERATING SEGMENTS



List Of Figures

LIST OF FIGURES

FIGURE 1. WORLD CERIUM OXIDE NANOPARTICLES MARKET SIZE, 20142022 (\$MILLION)

FIGURE 2. WORLD CERIUM OXIDE NANOPARTICLES MARKET, REVENUE SHARE, BY APPLICATION, 2015 (%)

FIGURE 3. WORLD CERIUM OXIDE NANOPARTICLES MARKET, REVENUE SHARE, BY REGION, 2015 (%)

FIGURE 4. TOP INVESTMENT POCKETS, BY APPLICATION

FIGURE 5. TOP WINNING STRATEGIES, 20102016 (%)

FIGURE 6. WORLD CERIUM OXIDE NANOPARTICLES MARKET, VALUE CHAIN ANALYSIS

FIGURE 7. PORTERS FIVE FORCES ANALYSIS

FIGURE 8. TOP IMPACTING FACTORS: WORLD CERIUM OXIDE NANOPARTICLES MARKET, 2015 VS. 2022

FIGURE 9. WORLD CERIUM OXIDE NANOPARTICLES MARKET, MAJOR DRIVING FACTORS

FIGURE 10. WORLD CERIUM OXIDE NANOPARTICLES MARKET, RESTRAINTS

FIGURE 11. WORLD ELECTRONICS MARKET, BY REGION, 2012 & 2015 (\$BILLION)

FIGURE 12. WORLD AUTOMOTIVE SALES, 2005-2015 (MILLION UNITS)

FIGURE 13. U.S.: ESTIMATED CURRENT INSTALLED CAPACITY, BY TECHNOLOGY (MEGA WATT)

FIGURE 14. PHARMACEUTICAL SPENDING PER CAPITA, BY COUNTRY, 2013 VS 2018 (US \$)

FIGURE 15. EMERGING TRENDS IN CERIUM OXIDE NANOPARTICLES MARKET FIGURE 16. U.S. CERIUM OXIDE NANOPARTICLES MARKET, 20142022 (\$MILLION/TONS)

FIGURE 17. CANADA CERIUM OXIDE NANOPARTICLES MARKET, 20142022 (\$MILLION/TONS)

FIGURE 18. MEXICO CERIUM OXIDE NANOPARTICLES MARKET, 20142022 (\$MILLION/TONS)

FIGURE 19. U.K. CERIUM OXIDE NANOPARTICLES MARKET, 20142022 (\$MILLION/TONS)

FIGURE 20. GERMANY CERIUM OXIDE NANOPARTICLES MARKET, 20142022 (\$MILLION/TONS)

FIGURE 21. FRANCE CERIUM OXIDE NANOPARTICLES MARKET, 20142022 (\$MILLION/TONS)



FIGURE 22. SPAIN CERIUM OXIDE NANOPARTICLES MARKET, 20142022 (\$MILLION/TONS)

FIGURE 23. ITALY CERIUM OXIDE NANOPARTICLES MARKET, 20142022 (\$MILLION/TONS)

FIGURE 24. REST OF EUROPE CERIUM OXIDE NANOPARTICLES MARKET, 20142022 (\$MILLION/TONS)

FIGURE 25. CHINA CERIUM OXIDE NANOPARTICLES MARKET, 20142022 (\$MILLION/TONS)

FIGURE 26. JAPAN CERIUM OXIDE NANOPARTICLES MARKET, 20142022 (\$MILLION/TONS)

FIGURE 27. KOREA CERIUM OXIDE NANOPARTICLES MARKET, 20142022 (\$MILLION/TONS)

FIGURE 28. TAIWAN CERIUM OXIDE NANOPARTICLES MARKET, 20142022 (\$MILLION/TONS)

FIGURE 29. REST OF ASIA-PACIFIC CERIUM OXIDE NANOPARTICLES MARKET, 20142022 (\$MILLION/TONS)

FIGURE 30. BRAZIL CERIUM OXIDE NANOPARTICLES MARKET, 20142022 (\$MILLION/TONS)

FIGURE 31. ARGENTINA CERIUM NANOPARTICLES MARKET, 20142022 (\$MILLION/TONS)

FIGURE 32. SOUTH AFRICA CERIUM OXIDE NANOPARTICLES MARKET, 20142022 (\$MILLION/TONS)

FIGURE 33. REST OF LAMEA CERIUM OXIDE NANOPARTICLES MARKET, 20142022 (\$MILLION/TONS)

FIGURE 34. NANOPHASE TECHNOLOGIES CORPORATION: REVENUE BY MARKET, 2014 (%)



I would like to order

Product name: Cerium Oxide Nanoparticles Market by Application (Energy Storage, Polishing, Catalyst,

Personal Care & Cosmetic Products, Biomedical and Others) - Global Opportunity

Analysis and Industry Forecast, 2014 - 2022

Product link: https://marketpublishers.com/r/C49F8212568EN.html

Price: US\$ 3,999.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer

Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/C49F8212568EN.html

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:	
Last name:	
Email:	
Company:	
Address:	
City:	
Zip code:	
Country:	
Tel:	
Fax:	
Your message:	
	**All fields are required
	Custumer signature

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at https://marketpublishers.com/docs/terms.html

To place an order via fax simply print this form, fill in the information below



and fax the completed form to +44 20 7900 3970