

Nanophotonics - Advanced Technologies and Global Market (2009 - 2014)

<https://marketpublishers.com/r/NFE539CB129EN.html>

Date: July 2009

Pages: 208

Price: US\$ 5,650.00 (Single User License)

ID: NFE539CB129EN

Abstracts

Nanophotonics is born out of the combination of three major sciences: photonics, nanotechnology, and optoelectronics. While photonics and optoelectronics have revolutionized the electronics and semiconductors market, nanotechnology has the greatest potential for further improvement, and hence has emerged as the most sought-after technology by big companies and research laboratories. In spite of it being in the nascent stage, nanophotonics is expected to make it to the mainstream market owing to its higher power efficiency, thermal resistivity, and operational life.

The nanophotonic component market is growing at a robust rate for the last few years and is expected to maintain a very high CAGR for the next few years. The market is expected to reach US\$3.6 billion in 2014 at a CAGR of 100.7% from 2009 to 2014.

Untapped market potential and benefits are the primary factors for the early adoption. Though most of the nanophotonic products are still under research, the available products such as nanophotonic LEDs, nanophotonic PV cells, nanophotonic OLEDs have been very successful in the market. Nanophotonic LEDs has the largest market share of US\$106 million in 2009. However, considering the pace of progress in various other segments like near-field-optics, optical amplifiers, optical switches and holographic memory, it can be safely ascertained that holographic memory and optical switches are expected to have the highest growth rate in the next five years. Nanophotonic LEDs will still continue to be largest segment albeit with a slow growth rate.

Asia accounts for the largest share of the global nanophotonics market followed by Europe and the U.S. Since the nanophotonic components were introduced early in the Asian market, it is expected to see the lowest growth rate from 2009 to 2014 while the

U.S. is expected to grow at a relatively high CAGR of 161.1% in 2014.

Market estimates and forecast

The report provides in-depth market estimates and forecasts for the global weight management market. The segmentation is as follows:

Nanophotonics components – products:

Nanophotonic LED, nanophotonic OLED, nanophotonic near field optics, nanophotonic photovoltaic cells, nanophotonic optical amplifiers, nanophotonic optical switches and nanophotonic holographic data storage system

Nanophotonics – applications:

Indicators and signs, lighting, non-visual applications, telecommunications, entertainment and consumer electronics

Nanophotonics – ingredients:

Photonic crystals, plasmonics, nanotubes, nanoribbons and quantum dots

Each section will provide market data, market drivers, trends and opportunities, top-selling products, key players, and competitive outlook. This report will also provide more than 100 market tables for various geographic regions covering the sub-segments and micro-markets. In addition, the report also provides 50 company profiles for each of its sub-segments.

What makes our reports unique?

- We provide the longest market segmentation chain in this industry- not many reports provide market breakdown upto level 5.
- Each report is about 250 pages with 100+ market data tables, 40 competitive company profiles, analysis of 300 patents and a minimum of 50 micro markets, which are collectively exhaustive and mutually exclusive.
- No single report by any other publisher provides market data for all the segments viz products, services, applications, ingredients, technology, and stakeholders in a single report for all the four geographies - US, Europe, APAC, ROW.
- We provide 10% customization. Normally it is seen that clients do not find specific market intelligence that they are looking for. Our customization will ensure that you

necessarily get the market intelligence you are looking for and we get a loyal customer.

- 15 pages of high level analysis including benchmarking strategies, best practices and the market's cash cows (BCG matrix). We conduct detailed market positioning, product positioning and competitive positioning. Entry strategies, gaps and opportunities are identified for all the stakeholders.

- Comprehensive market analysis for the following sectors:

Pharmaceuticals, Medical Devices, Biotechnology, Semiconductor and Electronics, Energy and Power Supplies, Food and Beverages, Chemicals, Advanced Materials, Industrial Automation, and Telecom and IT. We also analyze retailers and super-retailers, technology providers, and research and development (R&D) companies.

Key questions answered

- Which are the high-growth segments/cash cows and how is the market segmented in terms of applications, products, services, ingredients, technologies, and stakeholders?
- What are market estimates and forecasts; which markets are doing well and which are not?
- Where are the gaps and opportunities; what is driving the market?
- Which are the key playing fields? Which are the winning edge imperatives?
- How is the competitive outlook; who are the main players in each of the segments; what are the key selling products; what are their strategic directives, operational strengths and product pipelines? Who is doing what?

Powerful Research and analysis

The analysts working with MarketsandMarkets come from renowned publishers and market research firms, globally, adding their expertise and domain understanding. We get the facts from over 22,000 news and information sources, a huge database of key industry participants and draw on our relationships with more than 900 market research companies across the world. We, at MarketsandMarkets, are inspired to help our clients grow by providing qualitative business insights with our huge market intelligence repository.

Contents

1. INTRODUCTION

- 1.1. KEY TAKE AWAYS
- 1.2. REPORT DESCRIPTION
- 1.3. MARKETS COVERED
- 1.4. STAKEHOLDERS

2. SUMMARY

3. MARKET OVERVIEW

- 3.1. EVOLUTION OF NANOPHOTONICS
- 3.2. DRIVING FACTOR ANALYSIS FOR NANOPHOTONICS MARKET
- 3.3. DEFINING THE NANOPHOTONICS DEVICE MARKET
- 3.4. DEFINING THE NANOPHOTONICS MARKET BY PRODUCTS
- 3.5. DEFINING THE NANOPHOTONICS MARKET BY APPLICATION
- 3.6. MARKET DRIVERS
 - 3.6.1. LARGE OPTICAL BANDWIDTH AND ENERGY-EFFICIENT DESIGNS
 - 3.6.2. MAJOR APPLICATIONS IN LED, OLED, AND OPTICAL COMMUNICATION
 - 3.6.3. NANOPHOTONIC INGREDIENTS FACILITATE DISEASE IMAGING
 - 3.6.4. NANOPHOTONIC RESEARCH DEVICE MARKET GROWING AT 60% P.A.
 - 3.6.5. NANOPHOTONIC SWITCHES ARE HEAT-RESISTANT
- 3.7. CHALLENGES
 - 3.7.1. LIMITED COMMERCIALIZATION
 - 3.7.2. DIFFICULTY WITH LARGE-SCALE PRODUCTION
 - 3.7.3. HIGH MANUFACTURING COST
- 3.8. OPPORTUNITIES
 - 3.8.1. THE NANOPHOTONIC MARKET IS STILL AT A NASCENT STAGE
 - 3.8.2. LARGE NUMBER OF APPLICATIONS
 - 3.8.3. REDUCTION IN MANUFACTURING COST

4. NANOPHOTONICS COMPONENTS

- 4.1. NANOPHOTONIC LED MARKET
 - 4.1.1. MARKET DRIVERS
 - 4.1.1.1. Absence of Hazardous Chemicals

- 4.1.1.2. Increased Demand for LED in Consumer Goods
- 4.1.1.3. Smaller Size and Faster Switching
- 4.1.1.4. High Power -to-Performance Ratio
- 4.1.1.5. Increase in Demand for Solid-State Lighting
- 4.1.1.6. Governmental Support for Energy-Efficient Lighting
- 4.1.1.6. High Thermal Conductivity and Modulation Rate
- 4.1.2. MARKET RESTRAINTS
 - 4.1.2.1. More Expensive Than Incandescent Lamps
 - 4.1.2.2. low demand for Cell Phones in Developed Countries
 - 4.1.2.3. Need Precise Current and Heat Management
- 4.1.3. MARKET OPPORTUNITIES
 - 4.1.3.1. Narrowing Cost Differential
 - 4.1.3.2. Improvement in Efficiency
- 4.1.4. KEY PLAYERS AND RECENT DEVELOPMENTS
- 4.1.5. NANOPHOTONICS HIGH BEAM (HB) LED
 - 4.1.5.1. Market Drivers
 - 4.1.5.2. Market Restraints
 - 4.1.5.3. Market Opportunities
 - 4.1.5.4. Key Players and Recent Developments
 - 4.1.5.5. Nanophotonic White HB LED
 - 4.1.5.5.1. Global Factors Affecting Nanophotonic White HB LED Market
 - 4.1.5.5.1.1. Key Players and Recent Developments
 - 4.1.5.5.1.2. Nanophotonic Color HB LED
 - 4.1.5.5.2. Market Drivers
 - 4.1.5.5.3. Market Restraints
 - 4.1.5.5.4. Key Players and Recent Developments
- 4.1.6. NANOPHOTONIC FLASHING LED
 - 4.1.6.1. Global Factors Affecting Nanophotonic Flashing LED Market
 - 4.1.6.2. Key Players and Recent Developments
- 4.1.7. NANOPHOTONIC UV LED
 - 4.1.7.1. Market Drivers
 - 4.1.7.2. Market Restraints
 - 4.1.7.3. Key Players and Recent Developments
- 4.1.8. NANOPHOTONIC ALPHANUMERIC LED
 - 4.1.8.1. Market Drivers
- 4.1.9. KEY PLAYERS AND RECENT DEVELOPMENTS

4.2. NANOPHOTONIC ORGANIC LIGHT EMITTING DIODES (OLED)

4.2.1. MARKET DRIVERS

- 4.2.1.1. OLEDs Consume Less Power
- 4.2.1.2. OLEDs are Brighter , Crisper , and More Powerful Than LEDs
- 4.2.1.3. OLEDs are Flexible and Have a Large Field View

4.2.2. MARKET RESTRAINTS

- 4.2.2.1. Complex Value Chain
- 4.2.2.2. OLED Facing Production Problems
- 4.2.2.3. Color Reliability Needs Improvement
- 4.2.2.4. OLED Facing Problems in Overtaking LCD

4.2.3. MARKET OPPORTUNITIES

- 4.2.3.1. High Growth of Mobile Industry
- 4.2.3.2. Opportunity for Penetration

4.2.4. KEY PLAYERS AND RECENT DEVELOPMENTS

4.2.5. NANOPHOTONIC ACTIVE MATRIX OLED (AMOLED)

- 4.2.5.1. Market Drivers
- 4.2.5.2. Market Opportunities
- 4.2.5.3. Key Players and Recent Developments

4.2.6. NANOPHOTONIC PASSIVE MATRIX OLED (PMOLED)

- 4.2.6.1. Market Drivers
- 4.2.6.2. Market Restraints
- 4.2.6.3. Market Opportunities
- 4.2.6.4. Key Players and Recent Developments

4.3. NANOPHOTONICS NEAR FIELD OPTICS (NFO)

4.3.1. MARKET DRIVERS

- 4.3.1.1. NFO has Wide Ranging Applications
- 4.3.1.2. NFO has a High Data Storage Capacity

4.3.2. MARKET OPPORTUNITIES

- 4.3.2.1. Near- Field Lithography Has Good Market Potential
- 4.3.2.2. NFO Prevents Data Loss
- 4.3.2.3. NFO Addresses the Increasing Demand for High Storage Capacity

4.3.3. KEY PLAYERS AND RECENT DEVELOPMENTS

4.4. NANOPHOTONICS PHOTOVOLTAIC CELLS

4.4.1. MARKET DRIVERS

- 4.4.1.1. Worldwide Concern over Global Warming
- 4.4.1.2. Increasing Prices of Non-Renewable Energy
- 4.4.1.3. Emergence of Sophisticated Solar PV Technologies
- 4.4.1.4. EU's 'Climate Action and Renewable Energy Package'

4.4.2. MARKET RESTRAINTS

- 4.4.2.1. Dependence on Solar -Grade Polysilicon
- 4.4.2.2. High Product ion and Development Costs
- 4.4.2.3. No Grid Parity
- 4.4.2.4. Nanotechnology Needs to Improve Efficiency

4.4.3. MARKET OPPORTUNITIES

- 4.4.3.1. Benefits of Subsidies and Grid Parity
- 4.4.3.2. Capacity Increase in Polysilicon Production
- 4.4.3.3. Compatibility with Plastics and Other Polymers
- 4.4.3.4. Small Size

4.4.4. KEY PLAYERS AND RECENT DEVELOPMENTS

4.4.5. NANOPHOTONIC SILICON PV CELLS

- 4.4.5.1. Market Drivers
- 4.4.5.2. Market Restraints
- 4.4.5.3. Market Opportunities
- 4.4.5.4. Key Players and Recent Developments
- 4.4.5.5. Nanophotonic Mono-Crystalline silicon PV Cells .
 - 4.4.5.5.1. Market Drivers
 - 4.4.5.5.2. Market Restraints
 - 4.4.5.5.3. Market Opportunities
 - 4.4.5.5.4. Key Players and Recent Developments .
- 4.4.5.6. Nanophotonic Poly-Crystal line Silicon PV Cells
 - 4.4.5.6.1. Market Drivers
 - 4.4.5.6.2. Market Restraints
 - 4.4.5.6.3. Market Opportunities
 - 4.4.5.6.4. key Players and Recent Developments
- 4.4.5.7. Nanophotonic Ribbon Silicon PV Cells
 - 4.4.5.7.1. Key Players and Recent Developments
- 4.4.5.8. Nanophotonic Amorphous Thin- Film Silicon PV Cells
 - 4.4.5.8.1. Market Drivers
 - 4.4.5.8.2. Market Restraints
 - 4.4.5.8.3. Market Opportunities
 - 4.4.5.8.4. Key Players and Recent Developments

4.4.6. NANOPHOTONIC GALLIUM ARSENIDE PV CELLS

- 4.4.6.1. Market Drivers
- 4.4.6.2. Market Restraints
- 4.4.6.3. Market Opportunities
- 4.4.6.4. Key Players and Recent Developments.

4.5. NANOPHOTONICS OPTICAL AMPLIFIERS

4.5.1. MARKET DRIVERS

- 4.5.1.1. Technological Backbone for Telecommunications
- 4.5.1.2. High Transmission Speed and Low Loss Quality
- 4.5.1.3. Ensures Channel Management and Boosts Laser Output Power

4.5.2. MARKET RESTRAINTS

- 4.5.2.1. Increases Capital Expenditure
- 4.5.2.2. Preference for Wireless and Slow Development

4.5.3. KEY PLAYERS AND RECENT DEVELOPMENTS

4.5.4. NANOPHOTONICS OPTICAL FIBER AMPLIFIERS

4.5.4.1. Market Drivers

4.5.4.2. Key Players and Recent Developments

4.5.4.3. Nanophotonic Erbium Doped Fiber Amplifier (EDFA)

4.5.4.3.1. Market Drivers .

4.5.4.3.2. Market Restraints

4.5.4.3.3. Key Players and Recent Developments

4.5.4.4. Nanophotonics Multi -Wavelength Optical Repeaters

4.5.4.5. Nanophotonic Gain Blocks

4.5.4.6. Nanophotonics Fluoride Fiber Amplifiers .

4.5.4.7. Nanophotonics Praseodymium Amplifiers

4.5.4.7.1. Market Drivers

4.5.4.7.2. Market Restraints

4.5.4.8. Nanophotonics Tellurite Amplifiers .

4.5.4.8.1. Market Drivers and Opportunities

4.5.5. NANOPHOTONIC SEMICONDUCTOR OPTICAL AMPLIFIERS

4.5.5.1. Market Drivers

4.5.5.2. Market Restraints

4.5.5.3. Key Players and Recent Developments

4.5.6. NANOPHOTONICS RAMAN AMPLIFIERS

4.5.6.1. Market Drivers

4.5.6.2. Market Opportunities .

4.5.6.3. Key Players and Recent Developments .

4.6. NANOPHOTONIC OPTICAL SWITCHES

4.6.1. MARKET DRIVERS

- 4.6.1.1. Key Component in Several Applications .
- 4.6.1.2. Growth of Internet Transactions
- 4.6.1.3. Compactness Enhances Telecommunication Applications
- 4.6.1.4. Applications in Digital Data Links

4.6.1.5. Advanced Medical and Defense Applications

4.6.2. MARKET RESTRAINTS

4.6.2.1. Coupling Loss.

4.6.2.2. Limited Expandability and Reliability .

4.6.3. MARKET OPPORTUNITIES

4.6.3.1. High Speed Data Transfer

4.6.3.2. Possible Reduction in Price .

4.7. NANOPHOTONICS HOLOGRAPHIC DATA STORAGE SYSTEM

4.7.1. MARKET DRIVERS

4.7.1.1. High Data Storage Capacity

4.7.1.2. High Speed and Low Power Consumption

4.7.2. MARKET RESTRAINTS

4.7.2.1. High Development Cost .

4.7.2.2. Product Immaturity

4.7.3. MARKET OPPORTUNITIES

4.7.3.1. Applications in Portable Consumer Electronics .

4.7.3.2. HDSS Market Yet to be Fully Tapped

4.7.4. KEY PLAYERS AND RECENT DEVELOPMENTS

4.8. BLOCKBUSTER NANOPHOTONIC PRODUCTS

5. NANOPHOTONICS APPLICATIONS

5.1. APPLICATION OF NANOPHOTONICS LEDS

5.1.1. INDICATORS AND SIGNS

5.1.1.1. Market Drivers

5.1.2. VEHICLES

5.1.2.1. Market Drivers

5.1.2.2. Market Restraints

5.1.2.3. Market Opportunities .

5.1.3. DECORATION

5.1.4. TRAFFIC SIGNALING

5.1.4.1. Market Drivers .

5.1.4.2. Market Restraints .

5.1.5. LIGHTING

5.1.5.1. Market Drivers

5.1.5.2. Application in LCD Display Backlighting

5.1.5.2.1. Market Drivers

5.1.5.2.2. Market Restraints

5.1.5.3. Application in Laptops

5.1.5.3.1. Market Drivers

5.1.5.4. Application in Projectors

5.1.5.4.1. Market Drivers

5.1.5.5. Application in Mobile Phones .

5.1.5.5.1. Market Drivers .

5.1.6. NON-VISUAL APPLICATIONS

5.1.6.1. Market Drivers .

5.1.6.2. Application in Artificial Photosynthesis

5.1.6.3. Key Players and Recent Developments

5.1.6.4. Application in the Medical and Instrumentation Market s

5.1.6.5. Application in Ultra Violet (UV) Curing

5.1.6.5.1. Market Drivers

5.1.6.5.2. Market Restraints

5.1.6.6. Application in Water and Air Purification

5.1.6.7. Applications in Counterfeit Detection

5.1.6.7.1. Market Drivers .

5.1.6.7.2. Market Opportunities .

5.1.6.7.3. Key Players and Recent Development s

5.2. APPLICATIONS OF OLED

5.2.1. TELECOMMUNICATIONS

5.2.1.1. Market Drivers and Restraints

5.2.2. AUTOMOTIVE

5.2.3. ENTERTAINMENT

5.2.4. CONSUMER ELECTRONICS

5.2.5. DIGITAL VIDEO TECHNOLOGY

5.2.6. INDUSTRIAL, SCIENTIFIC AND MEDICAL

5.3. APPLICATIONS OF NFO

5.3.1. SURFACE CHEMISTRY

5.3.1.1. Market Drivers

5.3.2. BIOLOGY

5.3.3. MATERIAL SCIENCE

5.3.4. CHEMICAL STORAGE

5.3.5. INFORMATION STORAGE

5.3.6. NON-VISIBLE WAVELENGTH INSTRUMENTS

5.4. APPLICATION OF NANOPHOTONICS PV CELLS

5.4.1. NANOPHOTONICS APPLICATION IN GRID-CONNECTED PV SYSTEMS

5.4.1.1. Market Drivers

5.4.1.2. Market Restraints

5.4.1.3. Market Opportunities

5.4.2. NANOPHOTONICS APPLICATION IN OFF-GRID-CONNECTED PV SYSTEM

5.4.2.1. Market Drivers

5.4.2.2. Market Restraints

5.4.2.3. Market Opportunities

5.4.3. NANOPHOTONICS APPLICATION IN CONSUMER ELECTRONICS

5.4.3.1. Market Drivers

5.4.3.2. Market Restraints

5.4.3.3. Market Opportunities

5.5. APPLICATIONS OF OPTICAL AMPLIFIER

5.5.1. TELECOMMUNICATION/DENSE WAVELENGTH DIVISION

5.5.2. MULTIPLEXING (DWDM) NETWORKS

5.5.3. PRIVATE DATA NETWORKS

5.5.4. DEFENSE

5.5.5. AEROSPACE

5.5.6. CABLE TELEVISION

5.6. APPLICATION OF NANOPHOTONICS IN OPTICAL SWITCHES

5.6.1. TELECOMMUNICATION APPLICATIONS

5.6.1.1. Market Drivers

5.6.2. DIGITAL DATA LINK APPLICATIONS

5.6.3. LAN APPLICATIONS

5.6.3.1. Market Drivers

5.6.4. VIDEO APPLICATIONS

5.6.5. MEDICAL APPLICATIONS

5.6.6. AEROSPACE/DEFENSE APPLICATIONS

5.6.6.1. Market Drivers

5.7. APPLICATIONS OF HDSS

5.7.1. ARCHIVE AND MEDIA MANAGEMENT

5.7.2. DATA MINING

5.7.2.1. Market Drivers

5.7.3. PETAFLOP COMPUTING

5.7.3.1. Market Drivers and Restraints

6. NANOPHOTONICS INGREDIENTS

6.1. PHOTONIC CRYSTALS

6.2. PLASMONICS

6.2.1. MARKET DRIVERS

6.3. NANOTUBES

6.3.1. MARKET DRIVERS

6.3.2. MARKET OPPORTUNITIES

6.4. NANORIBBONS

6.4.1. MARKET DRIVERS

6.4.2. MARKET CHALLENGES

6.5. QUANTUM DOTS

6.5.1. MARKET DRIVERS

6.5.2. MARKET CHALLENGES

7. GEOGRAPHIC ANALYSIS

7.1. THE U.S. NANOPHOTONICS MARKET

7.2. ASIAN NANOPHOTONICS MARKET

7.3. EUROPEAN NANOPHOTONICS MARKET

8. COMPANY PROFILES

8.1. VEECO INSTRUMENTS INC

8.2. WITEC GMBH

8.3. ADD-VISION

8.4. ANDERS ELECTRONICS

8.5. CRYSTALFONTZ AMERICA INC

8.6. NOVALED AG

8.7. OSRAM

8.8. SAMSUNG SDI

8.9. COVEGA CORPORATION

8.10. EPSON

8.11. HOLLAND ELECTRONICS LLC

8.12. JDSU

8.13. LITE ARRAY

8.14. NEWPORT CORPORATION

8.15. RITDISPLAY

8.16. Global Nanophotonics Market 2009

- 8.17. SCHOTT AG
- 8.18. TOSHIBA MATSUSHITA DISPLAY TECHNOLOGY CO. LTD.
- 8.19. TRIQUINT SEMICONDUCTOR INC.
- 8.20. XINTEK INC
- 8.21. UNIVERSAL DISPLAY CORPORATION
- 8.22. ST MICROELECTRONICS
- 8.23. NANOSYS INC
- 8.24. MPHASE TECHNOLOGIES INC.
- 8.25. HEADWALL PHOTONICS
- 8.26. GE LUMINATION LLC 0
- 8.27. CAMBRIDGE DISPLAY TECHNOLOGY (CDT)
- 8.28. AVANEX CORPORATION
- 8.29. ALCATEL-LUCENT
- 8.30. API GROUP
- 8.31. NANONICS IMAGING LTD
- 8.32. OLYMPUS IMAGING CORPORATION
- 8.33. INPHASE TECHNOLOGIES
- 8.34. BELGIAN AMERICAN RADIO CORPORATION.
- 8.35. SHARP
- 8.36. EVIDENT TECHNOLOGIES INC
- 8.37. PHILIPS LUMILEDS LIGHTING COMPANY
- 8.38. AVANCIS GMBH & CO. KG
- 8.49. HITACHI LTD
- 8.40. NEC CORP
- 8.41. NANOGRAM CORPORATION
- 8.42. IBM
- 8.43. CRYSTAL IS INC
- 8.44. NANOCO TECHNOLOGIES LTD
- 8.45. NANOCYL S.A.
- 8.46. NANOLAB INC.
- 8.47. SHENZHEN NANOTECHNOLOGIES CO. LTD.
- 8.48. ULTRADOTS INC 214
- 8.59. UNIVERSAL DISPLAY CORPORATION
- 8.50. NANOSOLAR, INC
- 8.51. CREE

9. PATENT ANALYSIS

APPENDIX

U.S. PATENTS
E.U.PATENTS
ASIA PATENTS

List Of Tables

LIST OF TABLES

SUMMARY TABLE – GLOBAL NANOPHOTONICS MARKET 2007 – 2014

1. TABLE 1 GLOBAL NANOPHOTONIC LED MARKET BY PRODUCTS 2008 – 2014

2. TABLE 2 GLOBAL NANOPHOTONICS LED MARKET BY GEOGRAPHY 2008 – 2014

3. TABLE 3 MAJOR PLAYERS AND PRODUCT DEVELOPMENTS

4. TABLE 4 GLOBAL NANOPHOTONICS HIGH BEAM (HB) LED MARKET BY PRODUCTS 2008 – 2014

5. TABLE 5 GLOBAL NANOPHOTONICS HIGH BEAM (HB) LED MARKET BY GEOGRAPHY 2008 – 2014

6. TABLE 6 MAJOR PLAYERS AND PRODUCT DEVELOPMENTS

7. TABLE 7 GLOBAL NANOPHOTONICS WHITE HB LED MARKET BY GEOGRAPHY 2008 – 2014

8. TABLE 8 MAJOR PLAYERS AND PRODUCT DEVELOPMENTS

9. TABLE 9 GLOBAL NANOPHOTONIC COLOR HB LED MARKET BY GEOGRAPHY 2008 – 2014

10. TABLE 10 MAJOR PLAYERS AND PRODUCT DEVELOPMENTS

11. TABLE 11 GLOBAL NANOPHOTONIC FLASHING LED MARKET BY GEOGRAPHY 2008 – 2014

12. TABLE 12 MAJOR PLAYERS AND PRODUCT DEVELOPMENTS

13. TABLE 13 GLOBAL NANOPHOTONIC UV LED MARKET BY GEOGRAPHY 2008 – 2014

14. TABLE 14 MAJOR PLAYERS AND PRODUCT DEVELOPMENTS

15. TABLE 15 GLOBAL NANOPHOTONIC ALPHANUMERIC LED MARKET BY GEOGRAPHY 2008 – 2014

16. TABLE 16 MAJOR PLAYERS AND PRODUCT DEVELOPMENTS

17. TABLE 17 GLOBAL NANOPHOTONIC OLED MARKET BY PRODUCTS 2008 – 2014

18. TABLE GLOBAL NANOPHOTONICS OLED MARKET BY GEOGRAPHY 2008–2014

19. TABLE REVENUE AND MARKET SHARE OF MAJOR PLAYERS IN THE GLOBAL NANOPHOTONICS OLED MARKET

20. TABLE 20 GLOBAL NANOPHOTONICS OLED APPLICATION MARKET SHARE

21. TABLE 21 MAJOR PLAYERS AND PRODUCT DEVELOPMENTS

22. TABLE 22 GLOBAL NANOPHOTONIC ACTIVE MATRIX OLED MARKET BY GEOGRAPHY 2007 – 2014

- 23. TABLE 23 MAJOR PLAYERS AND PRODUCT DEVELOPMENTS
- 24. TABLE 24 GLOBAL NANOPHOTONIC PASSIVE MATRIX OLED MARKET BY GEOGRAPHY 2008 – 2014
- 25. TABLE 25 MAJOR PLAYERS AND PRODUCT DEVELOPMENTS
- 26. TABLE 26 GLOBAL NANOPHOTONIC NFO MARKET BY GEOGRAPHY 2008 – 2014
- 27. TABLE 27 MAJOR PLAYERS AND PRODUCT DEVELOPMENTS
- 28. TABLE 28 GLOBAL NANOPHOTONIC PV CELLS MARKET BY PRODUCTS 2008 – 2014 (\$ THOUSANDS)
- 29. TABLE 29 GLOBAL NANOPHOTONIC PV CELLS MARKET BY GEOGRAPHY 2007 – 2014
- 30. TABLE 30 MAJOR PLAYERS AND PRODUCT DEVELOPMENTS
- 31. TABLE 31 GLOBAL NANOPHOTONIC SILICON PV CELLS MARKET BY PRODUCTS 2007 – 2014
- 32. TABLE 32 GLOBAL NANOPHOTONIC SILICON PV CELLS MARKET BY GEOGRAPHY 2008 – 2014
- 33. TABLE 33 MAJOR PLAYERS AND PRODUCT DEVELOPMENTS
- 34. TABLE 34 GLOBAL NANOPHOTONIC MONO-CRYSTALLINE PV CELLS MARKET BY GEOGRAPHY
- 35. TABLE 35 MAJOR PLAYERS AND PRODUCT DEVELOPMENTS
- 36. TABLE 36 GLOBAL NANOPHOTONIC POLY-CRYSTALLINE SILICON PV CELLS MARKET BY GEOGRAPHY
- 37. TABLE 37 MAJOR PLAYERS AND PRODUCT DEVELOPMENTS
- 38. TABLE 38 GLOBAL NANOPHOTONIC RIBBON SILICON MARKET BY GEOGRAPHY 2008 – 2014
- 39. TABLE 39 MAJOR PLAYERS AND PRODUCT DEVELOPMENTS
- 40. TABLE 40 GLOBAL NANOPHOTONICS AMORPHOUS THIN FILM SILICON PV CELLS MARKET BY GEOGRAPHY 2008 – 2014
- 41. TABLE 41 MAJOR PLAYERS AND PRODUCT DEVELOPMENTS
- 42. TABLE 42 GLOBAL NANOPHOTONICS GALLIUM ARSENIDE PV CELLS MARKET BY GEOGRAPHY 2008 – 2014
- 43. TABLE 43 MAJOR PLAYERS AND PRODUCT DEVELOPMENTS
- 44. TABLE 44 GLOBAL NANOPHOTONICS OPTICAL AMPLIFIERS MARKET BY PRODUCTS 2008 – 2014
- 45. TABLE 45 GLOBAL NANOPHOTONICS OPTICAL AMPLIFIERS MARKET BY GEOGRAPHY 2008 – 2014
- 46. TABLE 46 MAJOR PLAYERS AND THEIR PRODUCTS
- 47. TABLE 47 GLOBAL NANOPHOTONICS OPTICAL FIBER AMPLIFIERS MARKET BY PRODUCTS 2008 – 2014

- 48. TABLE 48 GLOBAL NANOPHOTONICS OPTICAL FIBER AMPLIFIERS MARKETBY GEOGRAPHY 2008 – 2014
- 49. TABLE 49 MAJOR PLAYERS AND THEIR PRODUCTS
- 50. TABLE 50 GLOBAL NANOPHOTONICS EDFA MARKET BY GEOGRAPHY 2008–2014
- 51. TABLE 51 MAJOR PLAYERS AND THEIR PRODUCTS
- 52. TABLE 52 GLOBAL NANOPHOTONICS MULTI-WAVELENGTH OPTICAL REPEATERS MARKET BY GEOGRAPHY 2008 – 2014
- 53. TABLE 53 GLOBAL NANOPHOTONICS GAIN BLOCKS MARKET BY GEOGRAPHY 2008 – 2014 (\$ THOUSANDS)
- 54. TABLE 54 GLOBAL NANOPHOTONICS FLUORIDE FIBER AMPLIFIERS MARKET BY GEOGRAPHY 2008 – 2014 (\$ THOUSANDS)
- 55. TABLE 55 GLOBAL NANOPHOTONICS PRASEODYMIUM AMPLIFIERS MARKET BY GEOGRAPHY 2008 – 2014 (\$ THOUSANDS)
- 56. TABLE 56 GLOBAL NANOPHOTONICS TELLURITE AMPLIFIERS MARKET BY GEOGRAPHY 2008 – 2014 (\$ THOUSANDS)
- 57. TABLE 57 GLOBAL NANOPHOTONICS SEMICONDUCTOR AMPLIFIERS MARKET BY GEOGRAPHY 2008 – 2014 (\$ THOUSANDS)
- 58. TABLE 58 MAJOR PLAYERS AND THEIR PRODUCTS
- 59. TABLE 59 GLOBAL NANOPHOTONICS RAMAN AMPLIFIERS MARKET BY GEOGRAPHY 2008 – 2014 (\$ THOUSANDS)
- 60. TABLE 60 MAJOR PLAYERS AND PRODUCT DEVELOPMENTS
- 61. TABLE 61 GLOBAL NANOPHOTONICS OPTICAL SWITCH MARKET BY GEOGRAPHY 2008 – 2014 (\$ THOUSANDS)
- 62. TABLE 62 GLOBAL NANOPHOTONICS HOLOGRAPHIC DATA STORAGE SYSTEM (HDSS) MARKET BY PRODUCTS 2008 – 2014 (\$ THOUSANDS)
- 63. TABLE 63 GLOBAL NANOPHOTONICS HOLOGRAPHIC DATA STORAGE SYSTEM (HDSS) MARKET BY GEOGRAPHY 2008 – 2014 (\$ THOUSANDS)
- 64. TABLE 64 MAJOR PLAYERS AND PRODUCT DEVELOPMENTS
- 65. TABLE 65 MAJOR PLAYERS AND PRODUCT DEVELOPMENTS
- 66. TABLE 66 GLOBAL NANOPHOTONICS LED MARKET BY APPLICATION 2008–2014
- 67. TABLE 67 GLOBAL NANOPHOTONICS INDICATORS AND SIGNS MARKET BY APPLICATION 2008 – 2014
- 68. TABLE 68 GLOBAL NANOPHOTONICS LIGHTING MARKET BY APPLICATION 2008 – 2014
- 69. TABLE 69 GLOBAL NANOPHOTONICS NON-VISUAL MARKET BY APPLICATION 2008 – 2014
- 70. TABLE 70 MAJOR PLAYERS AND PRODUCT DEVELOPMENTS

- 71. TABLE 71 MAJOR PLAYERS AND PRODUCT DEVELOPMENTS
- 72. TABLE 72 GLOBAL NANOPHOTONICS OLED MARKET BY APPLICATION 2008 – 2014
- 73. TABLE 73 GLOBAL NANOPHOTONICS NEAR FIELD OPTICS (NFO) MARKET BY APPLICATION 2008 – 2014
- 74. TABLE 74 GLOBAL NANOPHOTONICS PV CELLS MARKET BY APPLICATION 2008 – 2014
- 75. TABLE 75 GLOBAL NANOPHOTONICS OPTICAL AMPLIFIER MARKET BY APPLICATION 2008 – 2014
- 76. TABLE 76 GLOBAL NANOPHOTONICS OPTICAL SWITCHES MARKET BY APPLICATION 2008 – 2014
- 77. TABLE 77 GLOBAL NANOPHOTONIC HDSS MARKET BY APPLICATION 2008–2014
- 78. TABLE 78 GLOBAL NANOPHOTONICS MARKET BY INGREDIENTS 2008 – 2014
- 79. TABLE 79 GLOBAL NANOPHOTONICS HDSS MARKET BY GEOGRAPHY 2008–2014
- 80. TABLE 80 GLOBAL NANOPHOTONICS MARKET BY GEOGRAPHY 2008 – 2014
- 81. TABLE 81 U.S. NANOPHOTONICS MARKET BY GEOGRAPHY 2008 – 2014
- 82. TABLE 82 ASIAN NANOPHOTONICS MARKET BY GEOGRAPHY 2008 – 2014
- 83. TABLE 83 EUROPEAN NANOPHOTONICS MARKET BY GEOGRAPHY 2008 – 2014
- 84. TABLE 84 VEECO INSTRUMENTS INC PRODUCTS
- 85. TABLE 85 VEECO INSTRUMENTS INC NEW PRODUCTS
- 86. TABLE 86 WITEC GMBH PRODUCTS
- 87. TABLE 87 ADD-VISION PRODUCTS
- 88. TABLE 88 ANDERS ELECTRONICS PRODUCTS
- 89. TABLE 89 CRYSTALFONTZ AMERICA, INC PRODUCTS
- 90. TABLE 90 CRYSTALFONTZ AMERICA, INC NEW PRODUCTS
- 91. TABLE 91 NOVALED AG PRODUCTS
- 92. TABLE 92 OSRAM PRODUCTS
- 93. TABLE 93 SAMSUNG SDI PRODUCTS
- 94. TABLE 94 COVEGA CORPORATION PRODUCTS
- 95. TABLE 95 HOLLAND ELECTRONICS LLC PRODUCTS
- 96. TABLE 96 JDSU PRODUCTS
- 97. TABLE 97 LITE ARRAY PRODUCTS
- 98. TABLE 98 NEWPORT CORPORATION PRODUCTS
- 99. TABLE 99 NEWPORT CORPORATION NEW PRODUCTS
- 100. TABLE 100 RITDISPLAY CORPORATION PRODUCTS
- 101. TABLE 101 SCHOTT AG PRODUCTS

- 102. TABLE 102 TOSHIBA MATSUSHITA DISPLAY TECHNOLOGY CO PRODUCTS
- 103. TABLE 103 TRIQUINT SEMICONDUCTOR INC PRODUCTS
- 104. TABLE 104 TRIQUINT SEMICONDUCTOR INC NEW PRODUCTS
- 105. TABLE 105 XINTEK, INC PRODUCTS
- 106. TABLE 106 UNIVERSAL DISPLAY CORPORATION PRODUCTS
- 107. TABLE 107 ST MICROELECTRONICS PRODUCTS
- 108. TABLE 108 NANOSYS INC APPLICATION PRODUCTS
- 109. TABLE 109 HEADWALL PHOTONICS PRODUCTS
- 110. TABLE 110 GENERAL ELECTRIC PRODUCTS
- 111. TABLE 111 TEST EQUIPMENTS PRODUCTS
- 112. TABLE 112 AVANEX CORPORATION PRODUCTS
- 113. TABLE 113 ALCATEL-LUCENT PRODUCTS
- 114. TABLE 114 API GROUP PRODUCTS
- 115. TABLE 115 NANONICS IMAGING LTD PRODUCTS
- 116. TABLE 116 OLYMPUS PRODUCTS
- 117. TABLE 117 OLYMPUS NEW PRODUCTS
- 118. TABLE 118 INPHASE TECHNOLOGIES PRODUCTS
- 119. TABLE 119 BELGIAN AMERICAN RADIO CORPORATION PRODUCTS
- 120. TABLE 120 SHARP CORPORATION PRODUCTS
- 121. TABLE 121 EVIDENT TECHNOLOGIES INC PRODUCTS
- 122. TABLE 122 PHILIPS LUMILEDS LIGHTING COMPANY PRODUCTS
- 123. TABLE 123 AVANCIS GMBH & CO. KG PRODUCTS
- 124. TABLE 124 HITACHI LTD PRODUCTS
- 125. TABLE 125 NEC CORP PRODUCTS
- 126. TABLE 126 NANOGRAM CORPORATION PRODUCTS
- 127. TABLE 127 IBM PRODUCTS
- 128. TABLE 128 CRYSTAL IS, INC. PRODUCTS
- 129. TABLE 129 NANOCO TECHNOLOGIES LTD PRODUCTS
- 130. TABLE 130 NANOCYL S.A PRODUCTS
- 131. TABLE 131 SHENZHEN NANOTECHNOLOGIES CO. LTD. (NTP) PRODUCTS
- 132. TABLE 132 ULTRADOTS, INC PRODUCTS
- 133. TABLE 133 UNIVERSAL DISPLAY CORPORATION PRODUCTS
- 134. TABLE 134 CREE PRODUCTS

List Of Figures

LIST OF FIGURES

1. FIGURE 1 PARENTAL STRUCTURE OF NANOPHOTONICS
2. FIGURE 2 EVOLUTION OF NANOPHOTONICS
3. FIGURE 3 FACTORS AFFECTING THE NANOPHOTONICS MARKET
4. FIGURE 4 COMPETITIVE ANALYSES FOR THE NANOPHOTONIC COMPONENTS
5. FIGURE 5 RELATIVE POTENTIAL MATRIXES FOR NANOPHOTONIC PRODUCTS IN 2014
6. FIGURE 6 GLOBAL NANOPHOTONIC LED MARKET
7. FIGURE 7 GLOBAL NANOPHOTONIC OLED MARKET
8. FIGURE 8 GLOBAL NANOPHOTONIC PV CELLS MARKET
9. FIGURE 9 GLOBAL NANOPHOTONIC OPTICAL AMPLIFIERS MARKET
10. FIGURE 10 GLOBAL NANOPHOTONIC HDSS MARKET
11. FIGURE 11 GLOBAL NANOPHOTONIC LED APPLICATIONS MARKET
12. FIGURE 12 GLOBAL NANOPHOTONIC OLED APPLICATIONS MARKET
13. FIGURE 13 GLOBAL NANOPHOTONIC NFO APPLICATIONS MARKET
14. FIGURE 14 GLOBAL NANOPHOTONIC OPTICAL AMPLIFIERS APPLICATIONS MARKET
15. FIGURE 15 GLOBAL HOLOGRAPHIC MEMORY APPLICATIONS MARKET
16. FIGURE 16 GLOBAL NANOPHOTONIC PV CELLS APPLICATION MARKETS
17. FIGURE 17 GLOBAL OPTICAL SWITCHES APPLICATION MARKETS
18. FIGURE 18 PRODUCT-WISE SEGMENTATION OF NANOPHOTONIC PATENTS
19. FIGURE 19 GEOGRAPHY-WISE SEGMENTATION OF NANOPHOTONIC PATENTS

I would like to order

Product name: Nanophotonics - Advanced Technologies and Global Market (2009 - 2014)

Product link: <https://marketpublishers.com/r/NFE539CB129EN.html>

Price: US\$ 5,650.00 (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/NFE539CB129EN.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**

Customer 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