

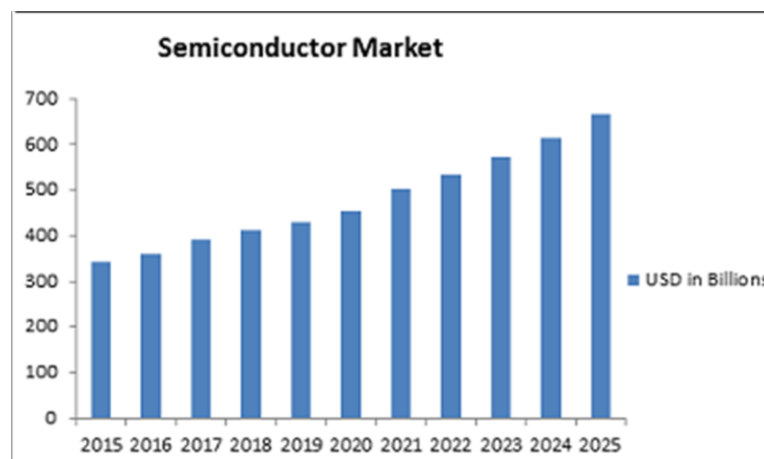
Materials physics Market analysis

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Market Analysis

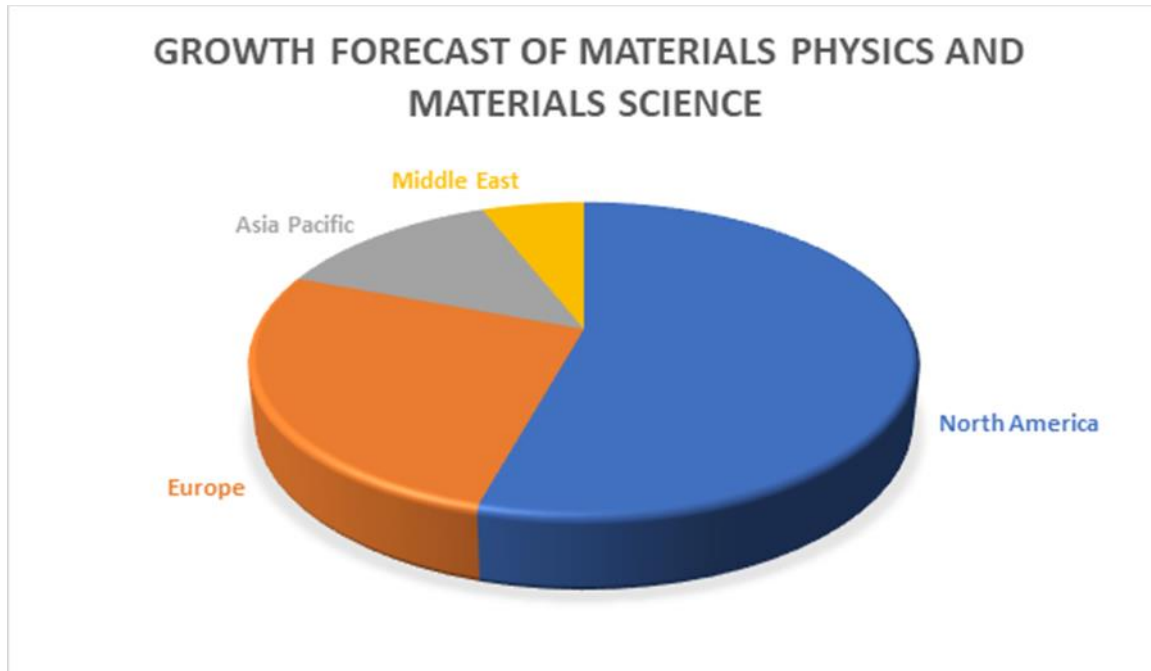
The Global Semiconductor Market is going through an interesting phase, offering immense opportunities for firms involved in the business. Although the market faced a drop in revenue due to the global economic downturn, it is expected to sustain high growth momentum in coming years with increase in demand for electronics devices and requirements in new application areas. In their latest research study, “Global Semiconductor Market Outlook to 2017”, RNCOS’ analysts identified and deciphered the market dynamics in important segments to clearly highlight the areas offering promising possibilities for companies to boost their growth. The market, estimated US\$ 289.9 Billion in 2012, is slated to grow at a CAGR of 7.6% during 2013-2017. The robust growth in revenue is being driven by the growing demand for mobile devices, specially smartphones and tablets. In the report, the Global Semiconductor market is studied thoroughly on three main grounds such as players, regions and applications. The global semiconductor market will be \$655.6 billion in 2025 compared to \$342.7 billion in 2015 with CAGR of 6.7%. This section intends to aid companies in designing their business strategies and provide them with key insights that help them boost their profits. Further, the report analyzes global semiconductor industry performance covering analysis of the industry by segments, equipment’s, materials and products. This has helped the analysts to clearly identify and highlight the market section offering maximum opportunity for growth.



According to the “Quantum Computing Market & Technologies – 2018-2024” report, the global market will grow at a CAGR of 24.6% throughout 2018-2024. During 2017 Quantum Computing technologies performance has increased at an impressive rate; we forecast that 2018-2019 will experience a surge of breakthroughs.

We are in the midst of a “Quantum Computing Supremacy Race”, one that will result in ground-breaking computing power that surpasses the performance of digital supercomputers. The quantum computing technologies have the potential to change long-held dynamics in commerce, intelligence, military affairs and strategic balance of power. If you have been paying attention to the news on quantum computing and the evolution of industrial and national efforts towards realizing a scalable, fault-tolerant quantum computer that can tackle problems, unmanageable to current supercomputing capabilities, then you know that something big is stirring throughout the quantum world. In a way that was unheard of five years ago, quantum physicists are now partnering with corporate tech giants, to develop quantum computing capabilities and technologies as the foundation of a second information age. Advances in quantum computer design, fault-tolerant algorithms and new fabrication technologies are now transforming this “holy grail” technology into a realistic program poised to surpass traditional computation in some applications. With these new developments, the key question that companies are asking is not whether there will be a quantum computer, but who will build it and benefit from it.

According to the new market research report on the by Type Application of physics like (Optical communication & laser processing), Vertical (Commercial, Telecom, Research, Defense, Medical, Automotive, Electronics, & Industrial), & Geography - Global Forecast to 2022", this market is expected to be valued at USD 15.38 Billion by 2022, at a CAGR of 5.2% between 2017 and 2022. The major factors driving the growth of physics include increasing demand from the healthcare sector, environmental sector, financial sector and shift towards production of nano and micro devices, and enhanced performance over the traditional material processing techniques.



Atomic Physics systems has been increasing due to the developing necessities of the industries as well as the substantial demand. Atomic Physics market is estimated to reach USD 5.60 Billion by 2020, rising at a CAGR of 6.0% through the calculation period of 2015 to 2020. North America probably has the largest share, in the upcoming years; the atomic physics market is expected to see the maximum growth rate in the Asia-Pacific region, with accent on India, China and Japan. Some of the key players in the global atomic physics market comprise Agilent Technologies (U.S.), PerkinElmer (U.S.), Thermo Fisher Scientific (U.S.) and Bruker Corporation (U.S.).

Nuclear Physics is used to define, describe and forecast the market on the basis of process, end users and region. Nuclear Physics market is expected to reach USD 2.85 Billion by 2021 from USD 2.25 Billion in 2016, mounting at a CAGR of 4.8% through the calculation period of 2016 to 2021. We can analyze the size of the nuclear physics market with respect to four main regions i.e., North America, Europe, Asia-Pacific and the Rest of the World. It provides the complete details of the competitive landscape for the market leaders for the opportunities of stakeholders.

Applied Physics is intended for technical and practical use. Applied Physics is established in the basic certainties and essential ideas of the Physical sciences and it utilizes the scientific principles in practical devices and in other related areas such as Lasers, Optics, Semiconductor devices and Nanophotonics. Demand for Physics is always there in the market because of its applications.

In the past market analysis it was suggested that the worldwide market for Physics was expected to reach around £3.4 billion by 2018. As indicated by later gauges by market forecasters BCC research, the global market for Physics based industries was worth significantly more, about £4.3 billion more in 2017 and is expected to increase around £6.2 billion by 2018, proportionate to the annual growth of 7.7%. Extending applications in the Cardiac, Breast MRI and Neurologic areas are expected to drive the world market which was anticipated to increase from £770 million in 2015 to reach around £1.2 billion by 2019 which is equivalent to yearly development 9.3% a year.

Major Physics Associations and Societies around the Globe**USA**

- American Physical Society
- American Association of Physicists in Medicine
- American Astronomical Society
- American Crystallographic Association
- American Meteorological Society
- American Physical Society
- American Association of Physics Teachers
- The International Association of Mathematical Physics (IAMP)
- The international society for optics and photonics (IUPAB)
- American Association of Physics Teachers
- American Institute of Physics (AIP)
- Optical Society of America (OSA)
- International Union of Pure and Applied Physics (IUPAP)
- Materials Research Society (MRS)
- Society for Applied Spectroscopy (SAS)
- Society for Nonlinear Dynamics and Econometrics (SNDE)

EUROPE

- European Acoustics Association (EAA)
- European Group for Atomic Spectroscopy (EGAS)
- European Biophysical Societies Association (EBSA)
- International Astronomical Union
- The international society for optics and photonics
- European Nuclear Society (ENS)
- International Union of Crystallography
- European Federation of Organisations for Medical Physics (EFOMP)
- Society of Non-Linear and Dynamics Econometrics
- European Geophysical Society (EGS)
- European Colloid and Interface Society (ECIS)
- European Geophysical Society (EGS)
- European High Pressure Research Group (EHPRG)
- European Optical Society (EOS)
- European Physical Society (EPS)
- Scandinavian Society for Electron Microscopy (SCANDEM)

ASIA

- Info Physical Society of Hong Kong (PSHK)
- Info Physical Society of the Republic of China (Taiwan)
- Korean Federation of Science and Technology Societies (KOFST)
- United Physical Society of Russian Federation (UPS RF)
- Physical Society of Japan (JPS)
- Indian Space Research Organisation (ISRO)
- Japan Society of Applied Physics (JSAP)
- Optical Society of Japan (OSJ)

- African Astronomical Society
- African Physical Society
- Egyptian Material Research Society (EgMRS)
- Egyptian Nuclear Physics Association (ENPA)
- Egyptian Physicists Association (EPA)
- Russian Gravitational Society (RGS)
- United Physical Society of Russian Federation (UPS RF)

Top Universities of Physics across the Globe

USA

- California Institute of Technology
- Massachusetts Institute of Technology
- Harvey Mudd College
- Harvard University
- Cornell University
- Rensselaer Polytechnic Institute
- University of California – Berkeley
- Stanford University
- United States Naval Academy
- University of North Alabama
- Jacksonville State University
- Northern Arizona University
- University of Central Arkansas
- California State University
- Sonoma State University

EUROPE

- Rheinisch-Westfälische Technische Hochschule Aachen (RWTH)
- Universität Augsburg
- Imperial College London
- University of Manchester
- UCL (University College London)
- Sapienza - Università di Roma
- Ecole Polytechnique ParisTech
- Lomonosov Moscow State University
- Universidad Autónoma de Madrid
- Universitat de Barcelona
- Delft University of Technology
- Royal Institute of Technology
- Vienna University of Technology
- University College Dublin
- Charles University
- Czech Technical University

ASIA

- Tokyo Institute of Technology
- Indian Institute of Technology Bombay
- National Taiwan University
- Hong Kong University of Science and Technology (HKUST)
- University of Hong Kong
- National University of Singapore (NUS)

- Nanyang Technological University
- Shandong University
- Nanjing University
- Zhejiang University
- Indian Institute of Science
- University of Science and Technology of China
- Quaid-i-Azam University
- Pohang University of Science and Technology
- Osaka University

Funding agencies for Physics Research

- Department of Coal (DOC)
- Department of Atomic Energy (DAE)
- Department of Biotechnology (DBT)
- University Grants Commission (UGC)
- Department of Ocean Development (DOD)
- Department of Science and Technology (DST)
- All India Council for Technical Education (AICTE)
- Council of Scientific and Industrial Research (CSIR)
- Defence Research and Development Organisation (DRDO)
- Department of Scientific and Industrial Research (DSIR)

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