



Market Analysis

Market Analysis ON 14th International Conference on Materials Science & Technology

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Theme: Improving the demand for Material Science with the assistance of ongoing Technologies

Materials technology is evolving every day. Millions of chemical and material combinations create challenges for scientists when applying them to real world applications that consumers touch every day. Keeping abreast of the latest trends in material science across a wide range of industries can be a daunting task. It generally has superior properties than conventional materials available. They can outperform conventional materials, in terms of their applications. They are materials that are novel or have undergone modifications in existing materials to gain superior performance with respect to one or more characteristics that are essential for the applications under consideration.

Materials Technology 2020 is an emerging and challenging field to study and acquire the knowledge of materials which are composite to be understood. Materials science has provoked and contributed to the emergence of various nanomaterial, biomaterials, electronic, optical, magnetic materials, piezoelectric materials, ceramics, glasses, polymers, metal alloys, smart materials, semiconductor materials and design of complicated structures through the innovation of technology by the advancements in the study of materials science.

Scope and Importance:

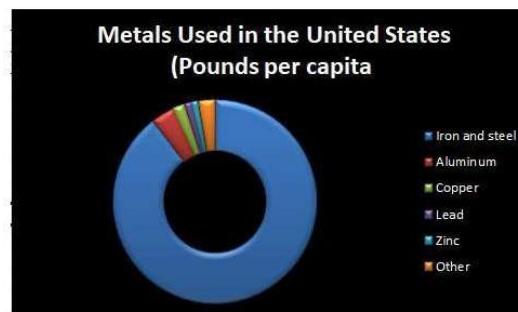
Materials Technology is a broad, diverse and multidisciplinary field. It is continuous interaction with basic disciplines and is also contributing to meet all Grand Societal Challenges. This contribution is such that numerous reports have been produced in recent years in Europe and world - wide, with the aim of drawing a comprehensive picture and proposing coordinated actions towards the establishment of coherent strategies in the field. The present report subscribes to this perspective, with a particular goal which is to contribute to the establishment of a comprehensive view of the role in efficient development of key enabling technologies.

Global Value:

The report estimates and forecasts the material science market on the global and regional levels. The study provides forecast between 2016 and 2024 based on volume (million tons / kilo tons) and revenue (US\$ Bn / US\$ Mn) with 2015

as the base year. The report comprises an exhaustive value chain analysis for each of the segments. It provides a comprehensive view of the market. Value chain analysis also offers detailed information about value addition at each stage. The products have been segmented into ceramics, glasses, polymers, composites and metals & alloys (M&A). The applications are segmented into medical devices, automotive, aerospace, and electrical & electronics (E&E), industrial, power and others. These segments have been analyzed based on historic, present, and future trends.

Materials Used in USA:



Branches of Materials Science and Technology Include:

- Thermodynamics of materials
- Fundamentals of Materials Science
- Polymer Science and Engineering
- Amorphous Materials
- Materials in Human Experience
- Mechanics of Materials
- Magnetic Materials
- Molecular Principles of Biomaterials

Societies Associated with Materials Science and Technology:

- Federation of Materials Societies
- International union of Crystallography
- International Organization of Materials
- Metals and Minerals Societies
- Japan Society for Composite Materials
- Materials Research Society
- Society for Biomaterials
- Society for Advancement of Material and process Engineering
- Society for materials Science
- American Ceramic Society
- American Composites Manufacturers Association

University Name:

- University of Wisconsin Stout, USA
- University of Alabama at Birmingham, USA
- University of California at Santa Barbara, USA
- Michigan State University, USA
- PDC Engineering LLC, USA
- New York University, USA
- University of Washington, USA

Market Growth of Materials Science in the last and upcoming five years:

The global material market was valued at US\$149 million in 2015, and is expected to reach US\$1,387 million by 2022, growing at a CAGR of 39.7% during the forecast period. Material mediums are defined as macroscopic composites possessing a man-made, three-dimensional, periodic cellular architecture designed to produce an optimized combination, not available in nature, of two or more responses to a specific excitation. They show exceptional physical properties such as negative permeability and permittivity. The significance of materials is that they allow engineers to manipulate wave propagation by arranging the unit cells in different ways. For example, though copper is a good conductor and appears bronze in color, a materials designed out of copper can be engineered to be an insulator and reflect yellow. Major factors that drive the market growth are capital investment from public and private sources and highly skilled researchers for product commercialization.

Funds allotted to Materials Science:

- Material Science and Technology faculty is leading numerous research projects, which are supported by an average of US4-5 million annually.
- A significant portion of this funding comes from federal grants: U.S. Department of Defense and all branches of the military, U.S. Department of Energy, National Science Foundation, and Center for Disease Control & Prevention. Another part comes from State or private foundations.
- Finally, industry (from small start-up companies to large international corporations) provides much of the remainder funding, which provide both for graduate research assistantships and support for undergraduates conducting research on a project.

References Link:

<https://www.transparencymarketresearch.com/searches?q=Material+Science>

<https://www.marketsandmarkets.com/search.asp?Search=Material+Science&x=0&y=0>

<https://www.marketgrowthinsight.com/search.php?key=Material+Science>

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