

Graphene Electronics Market by Materials (PV, Electronics), Devices (Super capacitors, Transistors, Spintronics, Sensors, ICs & Chips, Lenses), Products (Computing, Consumer, Memory, Display), Developments (Nanotubes & Ribbons, Fullerenes) & Geography - Analysis & Forecast 2013 to 2020

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Abstracts

Graphene is a wonder material which is useful for all major industry segments present in the market such as energy, aerospace, automotive, biomedical & life science, coating, composites, sensors and, electronics among others. Graphene electronics means the use of Graphene in the electronic application such as computing application sector, data storage application sector, consumer application sector, communications, thermal management, solar, application sector, sensing application sector and, display & touch application sector among others. It is strong and hard material present in the market but at the same time it is also stretchable like rubber and one of the thinnest materials in the world.

Graphene was introduced in 2004 and it is expected that it will be commercialize market till 2020. Currently, the Graphene market is growing due to increasing investment and R&D activities adopted by the industry players and educational institutes (Universities and research associations). Graphene market has witness huge investments and funding activities such as in late 2013, European Commission (EC) announced \$1.3 billion investment in Graphene R&D; this investment was made for the period of 10 years. Addition to this, industry players such as Samsung Electronics Co. Ltd. (South Korea), IBM (U.S.), McAlister Technologies, SanDisk (U.S.), Foxconn Electronics (Taiwan), Fujitsu (Japan), Teijin (Japan), and Xerox (U.S.) are competing in the race of patents in Graphene. Samsung Electronics. Co. Ltd is leading the race by 210 patents



followed by IBM with 64 patents worldwide. The increasing support from public and private firms is motivating Graphene electronics market to grow in coming future.

The global Graphene electronics market is expected to grow at a CAGR of 16.3% from 2014 to 2020 and the overall Graphene electronics market was \$58.53 million in 2013 and is estimated to reach to \$1.5 billion in 2020. In terms of technology, CVD (Chemical Vapor Deposition) process accounted for the largest market revenue in 2013 i.e. ~58% of the revenue. The industry is also witnessing the spree of other technology mapping such as graphite exfoliation, scotch tape method, synthesis on silicon carbide (SiC) and so on.

The major players in Graphene electronics market are AMG Advanced Metallurgical Group (Netherlands), Applied Graphene Materials PLC (U.K.), Grafoid Inc. (Canada), GrafTech International Ltd. (U.S.), Graphene Frontiers LLC (U.S.), Graphene Laboratories Inc. (New York), Graphene Square, Inc. (South Korea), Graphenea SA (Spain), Haydale Limited (U.K.) and Samsung Electronics Co., Ltd. (South Korea) among others.

The report presents a detailed insight on the current Graphene electronic industry, and identifies key trends of various segments of the market with in-depth quantitative and qualitative information. The report segments the global Graphene electronics market on the basis of types of materials, products and devices, technologies, application, and geography. Further, it contains revenue forecasts, and trend analysis with respect to the market's time-line.



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