

# Quantum Dots (QD) Market - Global Forecast & Analysis (2012 - 2022)

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## Abstracts

**“Quantum Dots (QD) Market - Global Forecast & Analysis (2012 - 2022) - By Applications (Healthcare, Optoelectronics, Optics, Security & Sustainable Energy), By Products (Quantum Dot Displays, Lasers, Medical Devices, Solar Panels, Chips, Sensors & Lighting) - Advanced Technology Focus, Current Trends & Opportunities”**

Quantum Dots (QD) are the types of semiconductor nanoparticles, which can be assembled in multiple applications like healthcare, electronics, etc. The current market of QD is at pre-commercialized stage; most of the researchers are working on the “application aspects” of QD technology and deriving the products based on QD.

Researchers have studied quantum dots in transistors, solar cells, LEDs, and diode lasers. They have also investigated quantum dots as agents for medical imaging and hope to use them as qubits in quantum computing. Healthcare industry is the only industry, which has gained significant percentage share in QD market, rest of the areas are under production or R&D phase.

This report describes the all the possible applications and products based on QD, that are supposed to hit the floor in the next 10 years and/or are already commercialized. In biomedical and biotechnology area, there are several processes or methods, which use QD as their mainstream technology. There are certain assumptions based on market trend that need to be made while formulating the total market, and they are included in the report.

This report describes the number of activities that are being conducted by various research institutes across the globe in the field of QD technology market. This report

also analyzes the patents filed by different countries in the field of QD, with their assignee details and product type. It is observed that the number of patents filed in Americas is higher than the other economies like Japan, China, and Europe. This is due to the largest base of QD companies and research institutes.

In the global QD technology market, “Americas” is a leading geographical region. Americas is the largest base for QD manufacturing companies as well as universities and research institutes. It is followed by Europe and APAC. APAC has the fastest growing rate and assumed to be the future hub for QD market, especially optoelectronics area. In addition, most of the optoelectronics industries are based out of Japan, China, and South Korea; therefore APAC will be on the forefront with supply point of view as well.

This report deals with all the driving factors, restraints, and opportunities for the QD technology market, which is helpful in identifying trends and key success factors for the industry. The report also profiles companies that are active in the field of QD technology with their competitive landscape and strategies. It also highlights the winning imperatives and burning issues pertaining to the QD technology industry.

The global QD technology, products, and applications market is expected to reach \$7480.25 million in 2022 at an estimated CAGR of 55.2% from 2011 to 2022. Americas are at the top, followed by Europe and APAC. Optoelectronics, solar energy, and healthcare will be the key application areas of QD market.

### **Scope of the report**

This research report categorizes the global QD technology based on products and applications market; it also covers the forecasted revenue and future applications of global QD technology market. This report also shows the various activities that are being conducted by different institutes and universities.

### **On the basis of products**

Global QD technology, product market is categorized into QD Display, QD LED, QD lighting products, QD solar cell, QD laser, QD medical devices, QD sensors, QD chips and QD cameras.

### **On the basis of application areas**

Application areas of QD technology have been categorized into Healthcare, Semiconductor, Optoelectronics, Quantum optics, Sustainable energy, Security and Surveillance. Healthcare industry comprises biomedical and biotechnology. Semiconductor areas cover QD chips, QD sensors, and the other memory devices. Optoelectronics comprises lighting products. Sustainable energy covers the solar and thermoelectric components.

### **On the basis of geography**

Geographical analysis covers Americas, Europe, Asia-Pacific, and ROW. Americas have further extended into two regions: North America and South America. Europe covers U.K., Germany, France, and Italy. All the geographical areas have been forecasted, based on product type and application areas.

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