

The Global Market for Quantum Dots 2024-2034

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Abstracts

The multi-billion dollar quantum dot-enabled TV market will experience further growth this year, with market innovations leading to enhanced products utilizing new configurations in displays, Micro-LEDs, security tagging, medical diagnostics, quantum computing and Agtech. QDs are a proven and scaled technology and relatively low cost for the high-end applications they add value to. Quantum dots improve displays products such as TVs and monitors through benefits including wider color gamut, better brightness, and efficiency. Major TV manufacturers like Samsung, Sony and LG utilize QD films in their products. The report profiles quantum dot suppliers making this possible.

Quantum Dots (QDs) are increasingly used in light-emitting devices (LEDs), solar cells, photodiodes, thermoelectrics, photoconductors and field-effect transistors, while QD solutions have been used in a number of in vivo and in vitro imaging, sensing and labelling techniques.

Emerging applications like quantum dot MicroLED displays, quantum dot lasers, QD-enhanced Li-ion batteries, and QD transistors represent new revenue opportunities as the technology advances. Perovskite QDs are also highlighted as a next-gen material.

Report contents include:

Quantum dot (QD) types, properties and production methods.

Global revenues for quantum dots, historical and market forecast to 2034, by region and end use markets.

Supply chain analysis for quantum dots and narrow band phosphors.

Market drivers and trends.

Challenges, by market.

Analysis of QD market segments and the main players in each segment.

Assessment of quantum dots on glass, quantum dot colour filters (QDCF) for microLEDs and displays, hybrid QD-NBP displays, hybrid QD-OLED displays, perovskite QDs and inkjet printed QDs.

Assessment of graphene quantum dots and perovskite quantum dots market.

Market assessment of quantum dots in TV displays and smartphone displays, VR headsets, solar cells, security tags, security inks, sensors, photodetectors, quantum dot lasers, quantum dot transistors, photonic crystals, bio-imaging, quantum dot solar windows, biomarkers, solid-material-based memory, thermoelectric materials, quantum dot computers, Agtech, artificial photosynthesis and light emitting diodes (LEDs).

119 company profiles of quantum dot producers and product developers. Companies profiled include Applied Quantum Materials Inc., BrightComSol GmbH, Canon, Inc., Diraq, Dotz Nano, Helio Display Materials, Nanoco Technologies, Nanosys, QDI Systems, Raysolve Ltd., Samsung, and Ubiquitous Quantum Dots.

List of Quantum Dot companies no longer trading.

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