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The Global Market for Quantum Dots (15th Edition)

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Abstracts

Quantum Dots (QDs) are used in a range of optoelectronic devices, including TVs and displays, 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.

The quantum dot market continues to grow in 2019. The market is moving towards more advanced applications of quantum dots in TVs with major producers developing technologies beyond Quantum Dot Enhancement Film (QDEF) such as:

QD Glass on LGP.

Quantum dot colour filters (QDCF) for microLEDS and displays.

Electroluminescent QDs.

Perovskite QDs.

Inkjet printed QDs.

Market segments such as micro and mini LEDs, sensors, lighting, solar windows, anti-counterfeiting and biosciences offer excellent opportunities. The Global Market for Quantum Dots analyses quantum dot suppliers, display manufacturers and OEMs. The global quantum dots (QD) based products market will be potentially valued at more than $35 billion by 2030. The optoelectronics market represents the vast majority of this figure, chiefly High Definition TVs-QLED-TVs.

TV displays still dominate the end user segment for QD-based products with a fast

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growing market for QD monitors. The use of QDs in solar conversion windows is also being heavily backed this year with a number of companies developing prototypes and funding multi-million dollar investments. The price of large QD-TVs is also falling.

This 198 page analysis report on the quantum dots market is now in its 15th edition (First edition 2009) and provides a more in-depth analysis of the HDTV segment and emerging markets for quantum dots, graphene quantum dots and perovskite quantum dots plus a new QD Roadmap. Contents include:

QD types, properties and production methods.

Changing market dynamics in the quantum dots market.

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

Strategic partnerships in the display market

Demand for quantum dots in displays, current and forecast.

Production costs.

Competitive landscape for QDs.

Analysis of key players in the quantum dots market-target markets, partnerships and collaborations, production capacities, production technology, sales territory, clients.

Applications analysis-applications by industry and product (used as a substitute for already used additive or as a new additive; most prospective QD-containing products/applications for next 1-5 years). Applications assessed for technology and market readiness, and potential market volume in terms of QD consumption by application.

Readiness of QD-based solution for each segment. Contribution of ND to improved performance in each application.

Market share of QD based display manufacturers.

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TV shipment estimates by manufacturer.

Market forecast in TV units.

In-depth market segmentation and analysis.

Quantum dots application roadmap.

Regional analysis.

Historical, current and projected market size in terms of volume and value.

Revenue estimates for quantum dots market to 2030.

Recent industry trends and developments.

Competitive landscape.

Regulatory issues.

Perovskite QDs producers and market.

Strategies of key players and products offered.

Market revenues forecasts to 2030 and historical figures from 2013.

Markets covered: TV displays and smartphone displays, solar cells, security tags, security inks, sensors, quantum dot lasers, quantum dot transistors, photonic crystals, bio-imaging, quantum dot solar windows, biomarkers, solid-material-based memory, thermoelectric materials, quantum dot computers, artificial photosynthesis and light emitting diodes (LEDs).

Market assessment in QLED TVs and displays, including market drivers, commercialization, market revenues to 2030, manufacturing and product development.

Market assessment in LED lighting, including market drivers, commercialization, market revenues to 2030, manufacturing and product development.

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Market assessment in biotechnology and medicine, including market drivers, commercialization, market revenues to 2030, manufacturing and product development.

Market assessment in security and anti-counterfeiting, including market drivers, commercialization, market revenues to 2030, manufacturing and product development.

Market assessment in sensors, including market drivers, commercialization, market revenues to 2030, manufacturing and product development.

Market assessment of other application markets.

Companies profiled include Applied Quantum Materials, Inc., Avantama AG, Bio Square, Inc., Dotz Nano Ltd., Fraunhofer Institute for Applied Polymer Research IAP/CAN GmbH, Green Science Alliance Co., Ltd.., Hansol Chemical Co., Ltd., HP Inc., IQDEMY Quantum Technology SA, KRI, Inc., ML System S.A Zaczernie, Nanoco Group Plc, NanoPhotonica, Inc., Nanosquare Co., Ltd., Nanosys, Inc., Plessey Semiconductors. Samsung, StoreDot Ltd. etc.

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