

Global Silicon Quantum Dot Market 2025 by Company, Regions, Type and Application, Forecast to 2031

<https://marketpublishers.com/r/G81F3E304034EN.html>

Date: August 2025

Pages: 175

Price: US\$ 3,480.00 (Single User License)

ID: G81F3E304034EN

Abstracts

According to our (Global Info Research) latest study, the global Silicon Quantum Dot market size was valued at US\$ 1048 million in 2024 and is forecast to a readjusted size of USD 1725 million by 2031 with a CAGR of 7.5% during review period.

Silicon quantum dots are nanoscale semiconductor structures made of silicon, consisting of just a few silicon atoms. These dots exhibit unique quantum mechanical properties due to their small size, which can lead to interesting applications in quantum computing, quantum communication, and quantum sensing.

Silicon (Si) is abundant in nature and is the mainstay of the semiconductor industry. It is considered non-toxic and biologically benign. Under a certain size, silicon nanomaterials exhibit interesting optoelectronic properties owing to the quantum confinement of charge carriers and these nanomaterials become known as silicon quantum dots (SiQDs).

The non-toxic nature of SiQDs makes them an enticing alternative to existing semiconducting quantum dots in the marketplace (e.g., cadmium, lead and indium-based materials), which either contain toxic or scarce metals.

Using proprietary preparative and functionalization methods, AQM produces high purity SiQDs (from 2 nm to 9 nm) with different surface modifications. With the variation of size and surface functionalities, these quantum dots can be made to emit light (under photoexcitation) across the visible and near-infrared spectra with high quantum yield. By using different surface functional groups, these quantum dots can be dispersed in a variety of organic solvents for thin-film device fabrication (e.g., displays and sensors) and in water for biological imaging and drug delivery.

Quantum dots represent the next wave of the semiconductor revolution. Their vast utility is, in part because of their tailorable size-dependent optical and chemical response. Because the material science can be manipulated, a variety of devices can be made. QDs have great potential as light-emitting materials for next-generation displays with highly saturated colors because of their sharp spectral resolution, high quantum efficiency and wavelength stability. Because QDs also convert light to current, they can be used as next-generation devices and systems including solar cells, photodetectors and sensors.

Once the SiQDs have been prepared and incorporated into different polymers, our dots are highly stable (brightness and quantum yield) under challenging environments such as high temperatures and moisture exposure. SiQDs are poised to revolutionize markets ranging from energy conversion and storage to medical diagnostics and treatment.

?

Using “solution” processing techniques, liquids, solids, powders and films of the material can be prepared. This allows for conveying the novel tunability of SiQDs absorption/emission spectra into a wide variety of everyday products.

This report is a detailed and comprehensive analysis for global Silicon Quantum Dot market. Both quantitative and qualitative analyses are presented by company, by region & country, by Type and by Application. As the market is constantly changing, this report explores the competition, supply and demand trends, as well as key factors that contribute to its changing demands across many markets. Company profiles and product examples of selected competitors, along with market share estimates of some of the selected leaders for the year 2025, are provided.

Key Features:

Global Silicon Quantum Dot market size and forecasts, in consumption value (\$ Million), 2020-2031

Global Silicon Quantum Dot market size and forecasts by region and country, in consumption value (\$ Million), 2020-2031

Global Silicon Quantum Dot market size and forecasts, by Type and by Application, in

consumption value (\$ Million), 2020-2031

Global Silicon Quantum Dot market shares of main players, in revenue (\$ Million), 2020-2025

The Primary Objectives in This Report Are:

To determine the size of the total market opportunity of global and key countries

To assess the growth potential for Silicon Quantum Dot

To forecast future growth in each product and end-use market

To assess competitive factors affecting the marketplace

This report profiles key players in the global Silicon Quantum Dot market based on the following parameters - company overview, revenue, gross margin, product portfolio, geographical presence, and key developments. Key companies covered as a part of this study include Applied Quantum Materials Inc., Fuji Pigment Co., Ltd., Quantum Materials Corporation, Samsung Electronics, Hansol Chemical, Merck, BOHR, Suzhou Xingshuo Nanotech, American Elements, Xingzi New Material, etc.

This report also provides key insights about market drivers, restraints, opportunities, new product launches or approvals.

Market segmentation

Silicon Quantum Dot market is split by Type and by Application. For the period 2020-2031, the growth among segments provides accurate calculations and forecasts for Consumption Value by Type and by Application. This analysis can help you expand your business by targeting qualified niche markets.

Market segment by Type

Amorphous Silicon Quantum Dots

Crystalline Silicon Quantum Dots

Market segment by Application

Bio-imaging

Light Emitting Solar Concentrator

Light Emitting Diodes

Sensors

Lithium-ion Battery Anodes

Others

Market segment by players, this report covers

Applied Quantum Materials Inc.

Fuji Pigment Co., Ltd.

Quantum Materials Corporation

Samsung Electronics

Hansol Chemical

Merck

BOHR

Suzhou Xingshuo Nanotech

American Elements

Xingzi New Material

Najing Tech

Nantong Veeyeei

Huada Nano

Yang-Ming Quantum Tech

Avantama

Crystalplex Corporation

Dirap

InVisage Technologies

LG Display Co. Ltd.

NanoPhotonica

Nanosys Inc.

Navillum Nanotechnologies

Nexxus Lighting

NN-Labs LLC

Ocean NanoTech

Nanoco Group

Market segment by regions, regional analysis covers
North America (United States, Canada and Mexico)
Europe (Germany, France, UK, Russia, Italy and Rest of Europe)
Asia-Pacific (China, Japan, South Korea, India, Southeast Asia and Rest of Asia-Pacific)
South America (Brazil, Rest of South America)
Middle East & Africa (Turkey, Saudi Arabia, UAE, Rest of Middle East & Africa)

The content of the study subjects, includes a total of 13 chapters:

Chapter 1, to describe Silicon Quantum Dot product scope, market overview, market estimation caveats and base year.

Chapter 2, to profile the top players of Silicon Quantum Dot, with revenue, gross margin, and global market share of Silicon Quantum Dot from 2020 to 2025.

Chapter 3, the Silicon Quantum Dot competitive situation, revenue, and global market share of top players are analyzed emphatically by landscape contrast.

Chapter 4 and 5, to segment the market size by Type and by Application, with consumption value and growth rate by Type, by Application, from 2020 to 2031

Chapter 6, 7, 8, 9, and 10, to break the market size data at the country level, with revenue and market share for key countries in the world, from 2020 to 2025. and Silicon Quantum Dot market forecast, by regions, by Type and by Application, with consumption value, from 2026 to 2031.

Chapter 11, market dynamics, drivers, restraints, trends, Porters Five Forces analysis.

Chapter 12, the key raw materials and key suppliers, and industry chain of Silicon Quantum Dot.

Chapter 13, to describe Silicon Quantum Dot research findings and conclusion.

Contents

1 MARKET OVERVIEW

1.1 Product Overview and Scope

1.2 Market Estimation Caveats and Base Year

1.3 Classification of Silicon Quantum Dot by Type

1.3.1 Overview: Global Silicon Quantum Dot Market Size by Type: 2020 Versus 2024 Versus 2031

1.3.2 Global Silicon Quantum Dot Consumption Value Market Share by Type in 2024

1.3.3 Amorphous Silicon Quantum Dots

1.3.4 Crystalline Silicon Quantum Dots

1.4 Global Silicon Quantum Dot Market by Application

1.4.1 Overview: Global Silicon Quantum Dot Market Size by Application: 2020 Versus 2024 Versus 2031

1.4.2 Bio-imaging

1.4.3 Light Emitting Solar Concentrator

1.4.4 Light Emitting Diodes

1.4.5 Sensors

1.4.6 Lithium-ion Battery Anodes

1.4.7 Others

1.5 Global Silicon Quantum Dot Market Size & Forecast

1.6 Global Silicon Quantum Dot Market Size and Forecast by Region

1.6.1 Global Silicon Quantum Dot Market Size by Region: 2020 VS 2024 VS 2031

1.6.2 Global Silicon Quantum Dot Market Size by Region, (2020-2031)

1.6.3 North America Silicon Quantum Dot Market Size and Prospect (2020-2031)

1.6.4 Europe Silicon Quantum Dot Market Size and Prospect (2020-2031)

1.6.5 Asia-Pacific Silicon Quantum Dot Market Size and Prospect (2020-2031)

1.6.6 South America Silicon Quantum Dot Market Size and Prospect (2020-2031)

1.6.7 Middle East & Africa Silicon Quantum Dot Market Size and Prospect (2020-2031)

2 COMPANY PROFILES

2.1 Applied Quantum Materials Inc.

2.1.1 Applied Quantum Materials Inc. Details

2.1.2 Applied Quantum Materials Inc. Major Business

2.1.3 Applied Quantum Materials Inc. Silicon Quantum Dot Product and Solutions

2.1.4 Applied Quantum Materials Inc. Silicon Quantum Dot Revenue, Gross Margin and Market Share (2020-2025)

- 2.1.5 Applied Quantum Materials Inc. Recent Developments and Future Plans
- 2.2 Fuji Pigment Co., Ltd.
 - 2.2.1 Fuji Pigment Co., Ltd. Details
 - 2.2.2 Fuji Pigment Co., Ltd. Major Business
 - 2.2.3 Fuji Pigment Co., Ltd. Silicon Quantum Dot Product and Solutions
 - 2.2.4 Fuji Pigment Co., Ltd. Silicon Quantum Dot Revenue, Gross Margin and Market Share (2020-2025)
 - 2.2.5 Fuji Pigment Co., Ltd. Recent Developments and Future Plans
- 2.3 Quantum Materials Corporation
 - 2.3.1 Quantum Materials Corporation Details
 - 2.3.2 Quantum Materials Corporation Major Business
 - 2.3.3 Quantum Materials Corporation Silicon Quantum Dot Product and Solutions
 - 2.3.4 Quantum Materials Corporation Silicon Quantum Dot Revenue, Gross Margin and Market Share (2020-2025)
 - 2.3.5 Quantum Materials Corporation Recent Developments and Future Plans
- 2.4 Samsung Electronics
 - 2.4.1 Samsung Electronics Details
 - 2.4.2 Samsung Electronics Major Business
 - 2.4.3 Samsung Electronics Silicon Quantum Dot Product and Solutions
 - 2.4.4 Samsung Electronics Silicon Quantum Dot Revenue, Gross Margin and Market Share (2020-2025)
 - 2.4.5 Samsung Electronics Recent Developments and Future Plans
- 2.5 Hansol Chemical
 - 2.5.1 Hansol Chemical Details
 - 2.5.2 Hansol Chemical Major Business
 - 2.5.3 Hansol Chemical Silicon Quantum Dot Product and Solutions
 - 2.5.4 Hansol Chemical Silicon Quantum Dot Revenue, Gross Margin and Market Share (2020-2025)
 - 2.5.5 Hansol Chemical Recent Developments and Future Plans
- 2.6 Merck
 - 2.6.1 Merck Details
 - 2.6.2 Merck Major Business
 - 2.6.3 Merck Silicon Quantum Dot Product and Solutions
 - 2.6.4 Merck Silicon Quantum Dot Revenue, Gross Margin and Market Share (2020-2025)
 - 2.6.5 Merck Recent Developments and Future Plans
- 2.7 BOHR
 - 2.7.1 BOHR Details
 - 2.7.2 BOHR Major Business

- 2.7.3 BOHR Silicon Quantum Dot Product and Solutions
- 2.7.4 BOHR Silicon Quantum Dot Revenue, Gross Margin and Market Share (2020-2025)
- 2.7.5 BOHR Recent Developments and Future Plans
- 2.8 Suzhou Xingshuo Nanotech
 - 2.8.1 Suzhou Xingshuo Nanotech Details
 - 2.8.2 Suzhou Xingshuo Nanotech Major Business
 - 2.8.3 Suzhou Xingshuo Nanotech Silicon Quantum Dot Product and Solutions
 - 2.8.4 Suzhou Xingshuo Nanotech Silicon Quantum Dot Revenue, Gross Margin and Market Share (2020-2025)
 - 2.8.5 Suzhou Xingshuo Nanotech Recent Developments and Future Plans
- 2.9 American Elements
 - 2.9.1 American Elements Details
 - 2.9.2 American Elements Major Business
 - 2.9.3 American Elements Silicon Quantum Dot Product and Solutions
 - 2.9.4 American Elements Silicon Quantum Dot Revenue, Gross Margin and Market Share (2020-2025)
 - 2.9.5 American Elements Recent Developments and Future Plans
- 2.10 Xingzi New Material
 - 2.10.1 Xingzi New Material Details
 - 2.10.2 Xingzi New Material Major Business
 - 2.10.3 Xingzi New Material Silicon Quantum Dot Product and Solutions
 - 2.10.4 Xingzi New Material Silicon Quantum Dot Revenue, Gross Margin and Market Share (2020-2025)
 - 2.10.5 Xingzi New Material Recent Developments and Future Plans
- 2.11 Najing Tech
 - 2.11.1 Najing Tech Details
 - 2.11.2 Najing Tech Major Business
 - 2.11.3 Najing Tech Silicon Quantum Dot Product and Solutions
 - 2.11.4 Najing Tech Silicon Quantum Dot Revenue, Gross Margin and Market Share (2020-2025)
 - 2.11.5 Najing Tech Recent Developments and Future Plans
- 2.12 Nantong Veeyeei
 - 2.12.1 Nantong Veeyeei Details
 - 2.12.2 Nantong Veeyeei Major Business
 - 2.12.3 Nantong Veeyeei Silicon Quantum Dot Product and Solutions
 - 2.12.4 Nantong Veeyeei Silicon Quantum Dot Revenue, Gross Margin and Market Share (2020-2025)
 - 2.12.5 Nantong Veeyeei Recent Developments and Future Plans

2.13 Huada Nano

2.13.1 Huada Nano Details

2.13.2 Huada Nano Major Business

2.13.3 Huada Nano Silicon Quantum Dot Product and Solutions

2.13.4 Huada Nano Silicon Quantum Dot Revenue, Gross Margin and Market Share (2020-2025)

2.13.5 Huada Nano Recent Developments and Future Plans

2.14 Yang-Ming Quantum Tech

2.14.1 Yang-Ming Quantum Tech Details

2.14.2 Yang-Ming Quantum Tech Major Business

2.14.3 Yang-Ming Quantum Tech Silicon Quantum Dot Product and Solutions

2.14.4 Yang-Ming Quantum Tech Silicon Quantum Dot Revenue, Gross Margin and Market Share (2020-2025)

2.14.5 Yang-Ming Quantum Tech Recent Developments and Future Plans

2.15 Avantama

2.15.1 Avantama Details

2.15.2 Avantama Major Business

2.15.3 Avantama Silicon Quantum Dot Product and Solutions

2.15.4 Avantama Silicon Quantum Dot Revenue, Gross Margin and Market Share (2020-2025)

2.15.5 Avantama Recent Developments and Future Plans

2.16 Crystalplex Corporation

2.16.1 Crystalplex Corporation Details

2.16.2 Crystalplex Corporation Major Business

2.16.3 Crystalplex Corporation Silicon Quantum Dot Product and Solutions

2.16.4 Crystalplex Corporation Silicon Quantum Dot Revenue, Gross Margin and Market Share (2020-2025)

2.16.5 Crystalplex Corporation Recent Developments and Future Plans

2.17 Dirap

2.17.1 Dirap Details

2.17.2 Dirap Major Business

2.17.3 Dirap Silicon Quantum Dot Product and Solutions

2.17.4 Dirap Silicon Quantum Dot Revenue, Gross Margin and Market Share (2020-2025)

2.17.5 Dirap Recent Developments and Future Plans

2.18 InVisage Technologies

2.18.1 InVisage Technologies Details

2.18.2 InVisage Technologies Major Business

2.18.3 InVisage Technologies Silicon Quantum Dot Product and Solutions

2.18.4 InVisage Technologies Silicon Quantum Dot Revenue, Gross Margin and Market Share (2020-2025)

2.18.5 InVisage Technologies Recent Developments and Future Plans

2.19 LG Display Co. Ltd.

2.19.1 LG Display Co. Ltd. Details

2.19.2 LG Display Co. Ltd. Major Business

2.19.3 LG Display Co. Ltd. Silicon Quantum Dot Product and Solutions

2.19.4 LG Display Co. Ltd. Silicon Quantum Dot Revenue, Gross Margin and Market Share (2020-2025)

2.19.5 LG Display Co. Ltd. Recent Developments and Future Plans

2.20 NanoPhotonica

2.20.1 NanoPhotonica Details

2.20.2 NanoPhotonica Major Business

2.20.3 NanoPhotonica Silicon Quantum Dot Product and Solutions

2.20.4 NanoPhotonica Silicon Quantum Dot Revenue, Gross Margin and Market Share (2020-2025)

2.20.5 NanoPhotonica Recent Developments and Future Plans

2.21 Nanosys Inc.

2.21.1 Nanosys Inc. Details

2.21.2 Nanosys Inc. Major Business

2.21.3 Nanosys Inc. Silicon Quantum Dot Product and Solutions

2.21.4 Nanosys Inc. Silicon Quantum Dot Revenue, Gross Margin and Market Share (2020-2025)

2.21.5 Nanosys Inc. Recent Developments and Future Plans

2.22 Navillum Nanotechnologies

2.22.1 Navillum Nanotechnologies Details

2.22.2 Navillum Nanotechnologies Major Business

2.22.3 Navillum Nanotechnologies Silicon Quantum Dot Product and Solutions

2.22.4 Navillum Nanotechnologies Silicon Quantum Dot Revenue, Gross Margin and Market Share (2020-2025)

2.22.5 Navillum Nanotechnologies Recent Developments and Future Plans

2.23 Nexxus Lighting

2.23.1 Nexxus Lighting Details

2.23.2 Nexxus Lighting Major Business

2.23.3 Nexxus Lighting Silicon Quantum Dot Product and Solutions

2.23.4 Nexxus Lighting Silicon Quantum Dot Revenue, Gross Margin and Market Share (2020-2025)

2.23.5 Nexxus Lighting Recent Developments and Future Plans

2.24 NN-Labs LLC

- 2.24.1 NN-Labs LLC Details
- 2.24.2 NN-Labs LLC Major Business
- 2.24.3 NN-Labs LLC Silicon Quantum Dot Product and Solutions
- 2.24.4 NN-Labs LLC Silicon Quantum Dot Revenue, Gross Margin and Market Share (2020-2025)
- 2.24.5 NN-Labs LLC Recent Developments and Future Plans
- 2.25 Ocean NanoTech
 - 2.25.1 Ocean NanoTech Details
 - 2.25.2 Ocean NanoTech Major Business
 - 2.25.3 Ocean NanoTech Silicon Quantum Dot Product and Solutions
 - 2.25.4 Ocean NanoTech Silicon Quantum Dot Revenue, Gross Margin and Market Share (2020-2025)
 - 2.25.5 Ocean NanoTech Recent Developments and Future Plans
- 2.26 Nanoco Group
 - 2.26.1 Nanoco Group Details
 - 2.26.2 Nanoco Group Major Business
 - 2.26.3 Nanoco Group Silicon Quantum Dot Product and Solutions
 - 2.26.4 Nanoco Group Silicon Quantum Dot Revenue, Gross Margin and Market Share (2020-2025)
 - 2.26.5 Nanoco Group Recent Developments and Future Plans

3 MARKET COMPETITION, BY PLAYERS

- 3.1 Global Silicon Quantum Dot Revenue and Share by Players (2020-2025)
- 3.2 Market Share Analysis (2024)
 - 3.2.1 Market Share of Silicon Quantum Dot by Company Revenue
 - 3.2.2 Top 3 Silicon Quantum Dot Players Market Share in 2024
 - 3.2.3 Top 6 Silicon Quantum Dot Players Market Share in 2024
- 3.3 Silicon Quantum Dot Market: Overall Company Footprint Analysis
 - 3.3.1 Silicon Quantum Dot Market: Region Footprint
 - 3.3.2 Silicon Quantum Dot Market: Company Product Type Footprint
 - 3.3.3 Silicon Quantum Dot Market: Company Product Application Footprint
- 3.4 New Market Entrants and Barriers to Market Entry
- 3.5 Mergers, Acquisition, Agreements, and Collaborations

4 MARKET SIZE SEGMENT BY TYPE

- 4.1 Global Silicon Quantum Dot Consumption Value and Market Share by Type (2020-2025)

4.2 Global Silicon Quantum Dot Market Forecast by Type (2026-2031)

5 MARKET SIZE SEGMENT BY APPLICATION

5.1 Global Silicon Quantum Dot Consumption Value Market Share by Application (2020-2025)

5.2 Global Silicon Quantum Dot Market Forecast by Application (2026-2031)

6 NORTH AMERICA

6.1 North America Silicon Quantum Dot Consumption Value by Type (2020-2031)

6.2 North America Silicon Quantum Dot Market Size by Application (2020-2031)

6.3 North America Silicon Quantum Dot Market Size by Country

6.3.1 North America Silicon Quantum Dot Consumption Value by Country (2020-2031)

6.3.2 United States Silicon Quantum Dot Market Size and Forecast (2020-2031)

6.3.3 Canada Silicon Quantum Dot Market Size and Forecast (2020-2031)

6.3.4 Mexico Silicon Quantum Dot Market Size and Forecast (2020-2031)

7 EUROPE

7.1 Europe Silicon Quantum Dot Consumption Value by Type (2020-2031)

7.2 Europe Silicon Quantum Dot Consumption Value by Application (2020-2031)

7.3 Europe Silicon Quantum Dot Market Size by Country

7.3.1 Europe Silicon Quantum Dot Consumption Value by Country (2020-2031)

7.3.2 Germany Silicon Quantum Dot Market Size and Forecast (2020-2031)

7.3.3 France Silicon Quantum Dot Market Size and Forecast (2020-2031)

7.3.4 United Kingdom Silicon Quantum Dot Market Size and Forecast (2020-2031)

7.3.5 Russia Silicon Quantum Dot Market Size and Forecast (2020-2031)

7.3.6 Italy Silicon Quantum Dot Market Size and Forecast (2020-2031)

8 ASIA-PACIFIC

8.1 Asia-Pacific Silicon Quantum Dot Consumption Value by Type (2020-2031)

8.2 Asia-Pacific Silicon Quantum Dot Consumption Value by Application (2020-2031)

8.3 Asia-Pacific Silicon Quantum Dot Market Size by Region

8.3.1 Asia-Pacific Silicon Quantum Dot Consumption Value by Region (2020-2031)

8.3.2 China Silicon Quantum Dot Market Size and Forecast (2020-2031)

8.3.3 Japan Silicon Quantum Dot Market Size and Forecast (2020-2031)

8.3.4 South Korea Silicon Quantum Dot Market Size and Forecast (2020-2031)

- 8.3.5 India Silicon Quantum Dot Market Size and Forecast (2020-2031)
- 8.3.6 Southeast Asia Silicon Quantum Dot Market Size and Forecast (2020-2031)
- 8.3.7 Australia Silicon Quantum Dot Market Size and Forecast (2020-2031)

9 SOUTH AMERICA

- 9.1 South America Silicon Quantum Dot Consumption Value by Type (2020-2031)
- 9.2 South America Silicon Quantum Dot Consumption Value by Application (2020-2031)
- 9.3 South America Silicon Quantum Dot Market Size by Country
 - 9.3.1 South America Silicon Quantum Dot Consumption Value by Country (2020-2031)
 - 9.3.2 Brazil Silicon Quantum Dot Market Size and Forecast (2020-2031)
 - 9.3.3 Argentina Silicon Quantum Dot Market Size and Forecast (2020-2031)

10 MIDDLE EAST & AFRICA

- 10.1 Middle East & Africa Silicon Quantum Dot Consumption Value by Type (2020-2031)
- 10.2 Middle East & Africa Silicon Quantum Dot Consumption Value by Application (2020-2031)
- 10.3 Middle East & Africa Silicon Quantum Dot Market Size by Country
 - 10.3.1 Middle East & Africa Silicon Quantum Dot Consumption Value by Country (2020-2031)
 - 10.3.2 Turkey Silicon Quantum Dot Market Size and Forecast (2020-2031)
 - 10.3.3 Saudi Arabia Silicon Quantum Dot Market Size and Forecast (2020-2031)
 - 10.3.4 UAE Silicon Quantum Dot Market Size and Forecast (2020-2031)

11 MARKET DYNAMICS

- 11.1 Silicon Quantum Dot Market Drivers
- 11.2 Silicon Quantum Dot Market Restraints
- 11.3 Silicon Quantum Dot Trends Analysis
- 11.4 Porters Five Forces Analysis
 - 11.4.1 Threat of New Entrants
 - 11.4.2 Bargaining Power of Suppliers
 - 11.4.3 Bargaining Power of Buyers
 - 11.4.4 Threat of Substitutes
 - 11.4.5 Competitive Rivalry

12 INDUSTRY CHAIN ANALYSIS

- 12.1 Silicon Quantum Dot Industry Chain
- 12.2 Silicon Quantum Dot Upstream Analysis
- 12.3 Silicon Quantum Dot Midstream Analysis
- 12.4 Silicon Quantum Dot Downstream Analysis

13 RESEARCH FINDINGS AND CONCLUSION

14 APPENDIX

- 14.1 Methodology
- 14.2 Research Process and Data Source
- 14.3 Disclaimer

List Of Tables

LIST OF TABLES

Table 1. Global Silicon Quantum Dot Consumption Value by Type, (USD Million), 2020 & 2024 & 2031

Table 2. Global Silicon Quantum Dot Consumption Value by Application, (USD Million), 2020 & 2024 & 2031

Table 3. Global Silicon Quantum Dot Consumption Value by Region (2020-2025) & (USD Million)

Table 4. Global Silicon Quantum Dot Consumption Value by Region (2026-2031) & (USD Million)

Table 5. Applied Quantum Materials Inc. Company Information, Head Office, and Major Competitors

Table 6. Applied Quantum Materials Inc. Major Business

Table 7. Applied Quantum Materials Inc. Silicon Quantum Dot Product and Solutions

Table 8. Applied Quantum Materials Inc. Silicon Quantum Dot Revenue (USD Million), Gross Margin and Market Share (2020-2025)

Table 9. Applied Quantum Materials Inc. Recent Developments and Future Plans

Table 10. Fuji Pigment Co., Ltd. Company Information, Head Office, and Major Competitors

Table 11. Fuji Pigment Co., Ltd. Major Business

Table 12. Fuji Pigment Co., Ltd. Silicon Quantum Dot Product and Solutions

Table 13. Fuji Pigment Co., Ltd. Silicon Quantum Dot Revenue (USD Million), Gross Margin and Market Share (2020-2025)

Table 14. Fuji Pigment Co., Ltd. Recent Developments and Future Plans

Table 15. Quantum Materials Corporation Company Information, Head Office, and Major Competitors

Table 16. Quantum Materials Corporation Major Business

Table 17. Quantum Materials Corporation Silicon Quantum Dot Product and Solutions

Table 18. Quantum Materials Corporation Silicon Quantum Dot Revenue (USD Million), Gross Margin and Market Share (2020-2025)

Table 19. Samsung Electronics Company Information, Head Office, and Major Competitors

Table 20. Samsung Electronics Major Business

Table 21. Samsung Electronics Silicon Quantum Dot Product and Solutions

Table 22. Samsung Electronics Silicon Quantum Dot Revenue (USD Million), Gross Margin and Market Share (2020-2025)

Table 23. Samsung Electronics Recent Developments and Future Plans

Table 24. Hansol Chemical Company Information, Head Office, and Major Competitors
Table 25. Hansol Chemical Major Business
Table 26. Hansol Chemical Silicon Quantum Dot Product and Solutions
Table 27. Hansol Chemical Silicon Quantum Dot Revenue (USD Million), Gross Margin and Market Share (2020-2025)
Table 28. Hansol Chemical Recent Developments and Future Plans
Table 29. Merck Company Information, Head Office, and Major Competitors
Table 30. Merck Major Business
Table 31. Merck Silicon Quantum Dot Product and Solutions
Table 32. Merck Silicon Quantum Dot Revenue (USD Million), Gross Margin and Market Share (2020-2025)
Table 33. Merck Recent Developments and Future Plans
Table 34. BOHR Company Information, Head Office, and Major Competitors
Table 35. BOHR Major Business
Table 36. BOHR Silicon Quantum Dot Product and Solutions
Table 37. BOHR Silicon Quantum Dot Revenue (USD Million), Gross Margin and Market Share (2020-2025)
Table 38. BOHR Recent Developments and Future Plans
Table 39. Suzhou Xingshuo Nanotech Company Information, Head Office, and Major Competitors
Table 40. Suzhou Xingshuo Nanotech Major Business
Table 41. Suzhou Xingshuo Nanotech Silicon Quantum Dot Product and Solutions
Table 42. Suzhou Xingshuo Nanotech Silicon Quantum Dot Revenue (USD Million), Gross Margin and Market Share (2020-2025)
Table 43. Suzhou Xingshuo Nanotech Recent Developments and Future Plans
Table 44. American Elements Company Information, Head Office, and Major Competitors
Table 45. American Elements Major Business
Table 46. American Elements Silicon Quantum Dot Product and Solutions
Table 47. American Elements Silicon Quantum Dot Revenue (USD Million), Gross Margin and Market Share (2020-2025)
Table 48. American Elements Recent Developments and Future Plans
Table 49. Xingzi New Material Company Information, Head Office, and Major Competitors
Table 50. Xingzi New Material Major Business
Table 51. Xingzi New Material Silicon Quantum Dot Product and Solutions
Table 52. Xingzi New Material Silicon Quantum Dot Revenue (USD Million), Gross Margin and Market Share (2020-2025)
Table 53. Xingzi New Material Recent Developments and Future Plans

Table 54. Najing Tech Company Information, Head Office, and Major Competitors
Table 55. Najing Tech Major Business
Table 56. Najing Tech Silicon Quantum Dot Product and Solutions
Table 57. Najing Tech Silicon Quantum Dot Revenue (USD Million), Gross Margin and Market Share (2020-2025)
Table 58. Najing Tech Recent Developments and Future Plans
Table 59. Nantong Veeyeei Company Information, Head Office, and Major Competitors
Table 60. Nantong Veeyeei Major Business
Table 61. Nantong Veeyeei Silicon Quantum Dot Product and Solutions
Table 62. Nantong Veeyeei Silicon Quantum Dot Revenue (USD Million), Gross Margin and Market Share (2020-2025)
Table 63. Nantong Veeyeei Recent Developments and Future Plans
Table 64. Huada Nano Company Information, Head Office, and Major Competitors
Table 65. Huada Nano Major Business
Table 66. Huada Nano Silicon Quantum Dot Product and Solutions
Table 67. Huada Nano Silicon Quantum Dot Revenue (USD Million), Gross Margin and Market Share (2020-2025)
Table 68. Huada Nano Recent Developments and Future Plans
Table 69. Yang-Ming Quantum Tech Company Information, Head Office, and Major Competitors
Table 70. Yang-Ming Quantum Tech Major Business
Table 71. Yang-Ming Quantum Tech Silicon Quantum Dot Product and Solutions
Table 72. Yang-Ming Quantum Tech Silicon Quantum Dot Revenue (USD Million), Gross Margin and Market Share (2020-2025)
Table 73. Yang-Ming Quantum Tech Recent Developments and Future Plans
Table 74. Avantama Company Information, Head Office, and Major Competitors
Table 75. Avantama Major Business
Table 76. Avantama Silicon Quantum Dot Product and Solutions
Table 77. Avantama Silicon Quantum Dot Revenue (USD Million), Gross Margin and Market Share (2020-2025)
Table 78. Avantama Recent Developments and Future Plans
Table 79. Crystalplex Corporation Company Information, Head Office, and Major Competitors
Table 80. Crystalplex Corporation Major Business
Table 81. Crystalplex Corporation Silicon Quantum Dot Product and Solutions
Table 82. Crystalplex Corporation Silicon Quantum Dot Revenue (USD Million), Gross Margin and Market Share (2020-2025)
Table 83. Crystalplex Corporation Recent Developments and Future Plans
Table 84. Dirap Company Information, Head Office, and Major Competitors

Table 85. Dirap Major Business

Table 86. Dirap Silicon Quantum Dot Product and Solutions

Table 87. Dirap Silicon Quantum Dot Revenue (USD Million), Gross Margin and Market Share (2020-2025)

Table 88. Dirap Recent Developments and Future Plans

Table 89. InVisage Technologies Company Information, Head Office, and Major Competitors

Table 90. InVisage Technologies Major Business

Table 91. InVisage Technologies Silicon Quantum Dot Product and Solutions

Table 92. InVisage Technologies Silicon Quantum Dot Revenue (USD Million), Gross Margin and Market Share (2020-2025)

Table 93. InVisage Technologies Recent Developments and Future Plans

Table 94. LG Display Co. Ltd. Company Information, Head Office, and Major Competitors

Table 95. LG Display Co. Ltd. Major Business

Table 96. LG Display Co. Ltd. Silicon Quantum Dot Product and Solutions

Table 97. LG Display Co. Ltd. Silicon Quantum Dot Revenue (USD Million), Gross Margin and Market Share (2020-2025)

Table 98. LG Display Co. Ltd. Recent Developments and Future Plans

Table 99. NanoPhotonica Company Information, Head Office, and Major Competitors

Table 100. NanoPhotonica Major Business

Table 101. NanoPhotonica Silicon Quantum Dot Product and Solutions

Table 102. NanoPhotonica Silicon Quantum Dot Revenue (USD Million), Gross Margin and Market Share (2020-2025)

Table 103. NanoPhotonica Recent Developments and Future Plans

Table 104. Nanosys Inc. Company Information, Head Office, and Major Competitors

Table 105. Nanosys Inc. Major Business

Table 106. Nanosys Inc. Silicon Quantum Dot Product and Solutions

Table 107. Nanosys Inc. Silicon Quantum Dot Revenue (USD Million), Gross Margin and Market Share (2020-2025)

Table 108. Nanosys Inc. Recent Developments and Future Plans

Table 109. Navillum Nanotechnologies Company Information, Head Office, and Major Competitors

Table 110. Navillum Nanotechnologies Major Business

Table 111. Navillum Nanotechnologies Silicon Quantum Dot Product and Solutions

Table 112. Navillum Nanotechnologies Silicon Quantum Dot Revenue (USD Million), Gross Margin and Market Share (2020-2025)

Table 113. Navillum Nanotechnologies Recent Developments and Future Plans

Table 114. Nexxus Lighting Company Information, Head Office, and Major Competitors

Table 115. Nexxus Lighting Major Business
Table 116. Nexxus Lighting Silicon Quantum Dot Product and Solutions
Table 117. Nexxus Lighting Silicon Quantum Dot Revenue (USD Million), Gross Margin and Market Share (2020-2025)
Table 118. Nexxus Lighting Recent Developments and Future Plans
Table 119. NN-Labs LLC Company Information, Head Office, and Major Competitors
Table 120. NN-Labs LLC Major Business
Table 121. NN-Labs LLC Silicon Quantum Dot Product and Solutions
Table 122. NN-Labs LLC Silicon Quantum Dot Revenue (USD Million), Gross Margin and Market Share (2020-2025)
Table 123. NN-Labs LLC Recent Developments and Future Plans
Table 124. Ocean NanoTech Company Information, Head Office, and Major Competitors
Table 125. Ocean NanoTech Major Business
Table 126. Ocean NanoTech Silicon Quantum Dot Product and Solutions
Table 127. Ocean NanoTech Silicon Quantum Dot Revenue (USD Million), Gross Margin and Market Share (2020-2025)
Table 128. Ocean NanoTech Recent Developments and Future Plans
Table 129. Nanoco Group Company Information, Head Office, and Major Competitors
Table 130. Nanoco Group Major Business
Table 131. Nanoco Group Silicon Quantum Dot Product and Solutions
Table 132. Nanoco Group Silicon Quantum Dot Revenue (USD Million), Gross Margin and Market Share (2020-2025)
Table 133. Nanoco Group Recent Developments and Future Plans
Table 134. Global Silicon Quantum Dot Revenue (USD Million) by Players (2020-2025)
Table 135. Global Silicon Quantum Dot Revenue Share by Players (2020-2025)
Table 136. Breakdown of Silicon Quantum Dot by Company Type (Tier 1, Tier 2, and Tier 3)
Table 137. Market Position of Players in Silicon Quantum Dot, (Tier 1, Tier 2, and Tier 3), Based on Revenue in 2024
Table 138. Head Office of Key Silicon Quantum Dot Players
Table 139. Silicon Quantum Dot Market: Company Product Type Footprint
Table 140. Silicon Quantum Dot Market: Company Product Application Footprint
Table 141. Silicon Quantum Dot New Market Entrants and Barriers to Market Entry
Table 142. Silicon Quantum Dot Mergers, Acquisition, Agreements, and Collaborations
Table 143. Global Silicon Quantum Dot Consumption Value (USD Million) by Type (2020-2025)
Table 144. Global Silicon Quantum Dot Consumption Value Share by Type (2020-2025)
Table 145. Global Silicon Quantum Dot Consumption Value Forecast by Type

(2026-2031)

Table 146. Global Silicon Quantum Dot Consumption Value by Application (2020-2025)

Table 147. Global Silicon Quantum Dot Consumption Value Forecast by Application (2026-2031)

Table 148. North America Silicon Quantum Dot Consumption Value by Type (2020-2025) & (USD Million)

Table 149. North America Silicon Quantum Dot Consumption Value by Type (2026-2031) & (USD Million)

Table 150. North America Silicon Quantum Dot Consumption Value by Application (2020-2025) & (USD Million)

Table 151. North America Silicon Quantum Dot Consumption Value by Application (2026-2031) & (USD Million)

Table 152. North America Silicon Quantum Dot Consumption Value by Country (2020-2025) & (USD Million)

Table 153. North America Silicon Quantum Dot Consumption Value by Country (2026-2031) & (USD Million)

Table 154. Europe Silicon Quantum Dot Consumption Value by Type (2020-2025) & (USD Million)

Table 155. Europe Silicon Quantum Dot Consumption Value by Type (2026-2031) & (USD Million)

Table 156. Europe Silicon Quantum Dot Consumption Value by Application (2020-2025) & (USD Million)

Table 157. Europe Silicon Quantum Dot Consumption Value by Application (2026-2031) & (USD Million)

Table 158. Europe Silicon Quantum Dot Consumption Value by Country (2020-2025) & (USD Million)

Table 159. Europe Silicon Quantum Dot Consumption Value by Country (2026-2031) & (USD Million)

Table 160. Asia-Pacific Silicon Quantum Dot Consumption Value by Type (2020-2025) & (USD Million)

Table 161. Asia-Pacific Silicon Quantum Dot Consumption Value by Type (2026-2031) & (USD Million)

Table 162. Asia-Pacific Silicon Quantum Dot Consumption Value by Application (2020-2025) & (USD Million)

Table 163. Asia-Pacific Silicon Quantum Dot Consumption Value by Application (2026-2031) & (USD Million)

Table 164. Asia-Pacific Silicon Quantum Dot Consumption Value by Region (2020-2025) & (USD Million)

Table 165. Asia-Pacific Silicon Quantum Dot Consumption Value by Region

(2026-2031) & (USD Million)

Table 166. South America Silicon Quantum Dot Consumption Value by Type

(2020-2025) & (USD Million)

Table 167. South America Silicon Quantum Dot Consumption Value by Type

(2026-2031) & (USD Million)

Table 168. South America Silicon Quantum Dot Consumption Value by Application

(2020-2025) & (USD Million)

Table 169. South America Silicon Quantum Dot Consumption Value by Application

(2026-2031) & (USD Million)

Table 170. South America Silicon Quantum Dot Consumption Value by Country

(2020-2025) & (USD Million)

Table 171. South America Silicon Quantum Dot Consumption Value by Country

(2026-2031) & (USD Million)

Table 172. Middle East & Africa Silicon Quantum Dot Consumption Value by Type

(2020-2025) & (USD Million)

Table 173. Middle East & Africa Silicon Quantum Dot Consumption Value by Type

(2026-2031) & (USD Million)

Table 174. Middle East & Africa Silicon Quantum Dot Consumption Value by Application

(2020-2025) & (USD Million)

Table 175. Middle East & Africa Silicon Quantum Dot Consumption Value by Application

(2026-2031) & (USD Million)

Table 176. Middle East & Africa Silicon Quantum Dot Consumption Value by Country

(2020-2025) & (USD Million)

Table 177. Middle East & Africa Silicon Quantum Dot Consumption Value by Country

(2026-2031) & (USD Million)

Table 178. Global Key Players of Silicon Quantum Dot Upstream (Raw Materials)

Table 179. Global Silicon Quantum Dot Typical Customers

List Of Figures

LIST OF FIGURES

Figure 1. Silicon Quantum Dot Picture

Figure 2. Global Silicon Quantum Dot Consumption Value by Type, (USD Million), 2020 & 2024 & 2031

Figure 3. Global Silicon Quantum Dot Consumption Value Market Share by Type in 2024

Figure 4. Amorphous Silicon Quantum Dots

Figure 5. Crystalline Silicon Quantum Dots

Figure 6. Global Silicon Quantum Dot Consumption Value by Application, (USD Million), 2020 & 2024 & 2031

Figure 7. Silicon Quantum Dot Consumption Value Market Share by Application in 2024

Figure 8. Bio-imaging Picture

Figure 9. Light Emitting Solar Concentrator Picture

Figure 10. Light Emitting Diodes Picture

Figure 11. Sensors Picture

Figure 12. Lithium-ion Battery Anodes Picture

Figure 13. Others Picture

Figure 14. Global Silicon Quantum Dot Consumption Value, (USD Million): 2020 & 2024 & 2031

Figure 15. Global Silicon Quantum Dot Consumption Value and Forecast (2020-2031) & (USD Million)

Figure 16. Global Market Silicon Quantum Dot Consumption Value (USD Million) Comparison by Region (2020 VS 2024 VS 2031)

Figure 17. Global Silicon Quantum Dot Consumption Value Market Share by Region (2020-2031)

Figure 18. Global Silicon Quantum Dot Consumption Value Market Share by Region in 2024

Figure 19. North America Silicon Quantum Dot Consumption Value (2020-2031) & (USD Million)

Figure 20. Europe Silicon Quantum Dot Consumption Value (2020-2031) & (USD Million)

Figure 21. Asia-Pacific Silicon Quantum Dot Consumption Value (2020-2031) & (USD Million)

Figure 22. South America Silicon Quantum Dot Consumption Value (2020-2031) & (USD Million)

Figure 23. Middle East & Africa Silicon Quantum Dot Consumption Value (2020-2031) &

(USD Million)

Figure 24. Company Three Recent Developments and Future Plans

Figure 25. Global Silicon Quantum Dot Revenue Share by Players in 2024

Figure 26. Silicon Quantum Dot Market Share by Company Type (Tier 1, Tier 2, and Tier 3) in 2024

Figure 27. Market Share of Silicon Quantum Dot by Player Revenue in 2024

Figure 28. Top 3 Silicon Quantum Dot Players Market Share in 2024

Figure 29. Top 6 Silicon Quantum Dot Players Market Share in 2024

Figure 30. Global Silicon Quantum Dot Consumption Value Share by Type (2020-2025)

Figure 31. Global Silicon Quantum Dot Market Share Forecast by Type (2026-2031)

Figure 32. Global Silicon Quantum Dot Consumption Value Share by Application (2020-2025)

Figure 33. Global Silicon Quantum Dot Market Share Forecast by Application (2026-2031)

Figure 34. North America Silicon Quantum Dot Consumption Value Market Share by Type (2020-2031)

Figure 35. North America Silicon Quantum Dot Consumption Value Market Share by Application (2020-2031)

Figure 36. North America Silicon Quantum Dot Consumption Value Market Share by Country (2020-2031)

Figure 37. United States Silicon Quantum Dot Consumption Value (2020-2031) & (USD Million)

Figure 38. Canada Silicon Quantum Dot Consumption Value (2020-2031) & (USD Million)

Figure 39. Mexico Silicon Quantum Dot Consumption Value (2020-2031) & (USD Million)

Figure 40. Europe Silicon Quantum Dot Consumption Value Market Share by Type (2020-2031)

Figure 41. Europe Silicon Quantum Dot Consumption Value Market Share by Application (2020-2031)

Figure 42. Europe Silicon Quantum Dot Consumption Value Market Share by Country (2020-2031)

Figure 43. Germany Silicon Quantum Dot Consumption Value (2020-2031) & (USD Million)

Figure 44. France Silicon Quantum Dot Consumption Value (2020-2031) & (USD Million)

Figure 45. United Kingdom Silicon Quantum Dot Consumption Value (2020-2031) & (USD Million)

Figure 46. Russia Silicon Quantum Dot Consumption Value (2020-2031) & (USD Million)

Million)

Figure 47. Italy Silicon Quantum Dot Consumption Value (2020-2031) & (USD Million)

Figure 48. Asia-Pacific Silicon Quantum Dot Consumption Value Market Share by Type (2020-2031)

Figure 49. Asia-Pacific Silicon Quantum Dot Consumption Value Market Share by Application (2020-2031)

Figure 50. Asia-Pacific Silicon Quantum Dot Consumption Value Market Share by Region (2020-2031)

Figure 51. China Silicon Quantum Dot Consumption Value (2020-2031) & (USD Million)

Figure 52. Japan Silicon Quantum Dot Consumption Value (2020-2031) & (USD Million)

Figure 53. South Korea Silicon Quantum Dot Consumption Value (2020-2031) & (USD Million)

Figure 54. India Silicon Quantum Dot Consumption Value (2020-2031) & (USD Million)

Figure 55. Southeast Asia Silicon Quantum Dot Consumption Value (2020-2031) & (USD Million)

Figure 56. Australia Silicon Quantum Dot Consumption Value (2020-2031) & (USD Million)

Figure 57. South America Silicon Quantum Dot Consumption Value Market Share by Type (2020-2031)

Figure 58. South America Silicon Quantum Dot Consumption Value Market Share by Application (2020-2031)

Figure 59. South America Silicon Quantum Dot Consumption Value Market Share by Country (2020-2031)

Figure 60. Brazil Silicon Quantum Dot Consumption Value (2020-2031) & (USD Million)

Figure 61. Argentina Silicon Quantum Dot Consumption Value (2020-2031) & (USD Million)

Figure 62. Middle East & Africa Silicon Quantum Dot Consumption Value Market Share by Type (2020-2031)

Figure 63. Middle East & Africa Silicon Quantum Dot Consumption Value Market Share by Application (2020-2031)

Figure 64. Middle East & Africa Silicon Quantum Dot Consumption Value Market Share by Country (2020-2031)

Figure 65. Turkey Silicon Quantum Dot Consumption Value (2020-2031) & (USD Million)

Figure 66. Saudi Arabia Silicon Quantum Dot Consumption Value (2020-2031) & (USD Million)

Figure 67. UAE Silicon Quantum Dot Consumption Value (2020-2031) & (USD Million)

Figure 68. Silicon Quantum Dot Market Drivers

Figure 69. Silicon Quantum Dot Market Restraints

Figure 70. Silicon Quantum Dot Market Trends

Figure 71. Porters Five Forces Analysis

Figure 72. Silicon Quantum Dot Industrial Chain

Figure 73. Methodology

Figure 74. Research Process and Data Source

I would like to order

Product name: Global Silicon Quantum Dot Market 2025 by Company, Regions, Type and Application, Forecast to 2031

Product link: <https://marketpublishers.com/r/G81F3E304034EN.html>

Price: US\$ 3,480.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/G81F3E304034EN.html>