

Ultra High Purity Silicon Carbide Market Size, Share & Trends Analysis Report By Application (Semiconductor, LEDs), By Region (North America, Europe, APAC, CSA, MEA), And Segment Forecasts, 2020 - 2027

<https://marketpublishers.com/r/U4CB2983C708EN.html>

Date: November 2020

Pages: 60

Price: US\$ 5,950.00 (Single User License)

ID: U4CB2983C708EN

Abstracts

This report can be delivered to the clients within Immediate

Ultra High Purity Silicon Carbide Market Growth & Trends

The global ultra high purity silicon carbide market size is expected to reach USD 79.0 million by 2027, according to a new report by Grand View Research, Inc. It is expected to expand at a CAGR of 14.8% from 2020 to 2027. The rising penetration of electric vehicles and the growth of the renewable energy sector are projected to provide growth opportunities to market vendors.

Power supplies and photovoltaic inverters are among the significant application areas of silicon carbide (SiC) semiconductors. Moreover, SiC power electronics are adopted in electric vehicle charging products, wind energy infrastructure, and industrial motor drives. Thus, the demand for electric vehicles is expected to boost the growth of ultra-high purity silicon carbide semiconductors. The growing utilization of renewable sources of energy for power generation around the globe is anticipated to drive the market for SiC power semiconductors.

The development of emerging technologies, such as quantum computing, artificial intelligence, and 5G technology, is also anticipated to provide new opportunities for market vendors. Increasing penetration of these technologies, particularly in the U.S., is likely to remain a key factor contributing to the market growth. Companies in the U.S.

have invested large sums in these technologies, thereby positively impacting the development of semiconductors required for artificial intelligence, supercomputers, and data centers. For instance, R&D investments in the U.S. semiconductor industry have increased at a CAGR of 6.6% from 1999 to 2019. In the U.S., R&D investments for 2019 amounted to USD 39.8 billion, which was around 17% of its sales, the highest among all the countries.

The increasing demand for light-emitting diodes (LEDs) is another key factor projected to fuel market growth over the coming years. Ultra-high purity silicon carbide is used to remove the impurities in LEDs. The LED lighting market is anticipated to register a growth rate of 13.4% from 2020 to 2027 owing to the decline in prices, stringent regulations related to lighting technologies, and efforts taken by various governments in the direction of sustainable development.

Companies in South Korea are involved in the development of silicon carbide technology, which is projected to remain a key driving factor in the long term. For instance, POSCO, one of the leading steel manufacturers in the globe, invested 10 years in the development of SiC single-crystal. In this project, POSCO is working on the development of 150-mm and 100-mm SiC substrate technology, which is close to commercialization. Another manufacturer SK Corporation (SKC) is likely to commercialize 150-mm SiC wafers.

Ultra High Purity Silicon Carbide Market Report Highlights

In terms of both revenue and volume, semiconductor was the largest application segment in 2019. The growth of the segment is attributed to rising requirements of the increasing middle-class population, and thus indirect demand for electronics

By application, LEDs are projected to expand at the fastest CAGR of 15.6% in terms of revenue from 2020 to 2027. Increasing awareness regarding global warming has created a positive impact on the demand for LEDs due to their energy efficiency

The COVID-19 pandemic has created a severe impact on the end-use industries of ultra-high purity silicon carbide (UHPSiC). In terms of volume, demand for UHPSiC is projected to decline by nearly 10% in 2020 from 2019

Asia Pacific was the largest regional market and accounted for a volume share

of 48.0% in 2019. High volume production of electronics and LEDs in China, South Korea, and Taiwan is a key growth factor for the regional market

Contents

CHAPTER 1. METHODOLOGY AND SCOPE

- 1.1. Market Segmentation & Scope
- 1.2. Market Definition
- 1.3. Information Procurement
 - 1.3.1. Purchased Database
 - 1.3.2. GVR's Internal Database
 - 1.3.3. Secondary Sources & Third-Party Perspectives
 - 1.3.4. Primary Research
- 1.4. Information Analysis
 - 1.4.1. Data Analysis Models
- 1.5. Market Formulation & Data Visualization
- 1.6. Data Validation & Publishing

CHAPTER 2. EXECUTIVE SUMMARY

- 2.1. Market Snapshot

CHAPTER 3. ULTRA HIGH PURITY SILICON CARBIDE MARKET VARIABLES, TRENDS & SCOPE

- 3.1. Market Outlook
- 3.2. Penetration & Growth Prospect Mapping
- 3.3. Industry Value Chain Analysis
 - 3.3.1. Manufacturing trends & technology overview
 - 3.3.2. Sales Channel Analysis
- 3.4. Technology Overview
- 3.5. Regularity Framework
- 3.6. Market Dynamics
 - 3.6.1. Market Driver Analysis
 - 3.6.2. Market Restraint Analysis
 - 3.6.3. Market challenges
- 3.7. Business Environment Analysis: Ultra High Purity Silicon Carbide market
 - 3.7.1. Industry Analysis - Porter's
 - 3.7.2. PESTEL Analysis

CHAPTER 4. ULTRA HIGH PURITY SILICON CARBIDE MARKET: APPLICATION

ESTIMATES & TREND ANALYSIS

4.1. Definition & Scope

4.2. Application Movement Analysis & Market Share, 2019 & 2027

4.3. Market size & forecasts and trend analysis, 2016 to 2027

4.3.1. Semiconductor

4.3.1.1. Market estimates & forecasts, 2016 - 2027 (Kilotons, USD Million)

4.3.2. LEDs

4.3.2.1. Market estimates & forecasts, 2016 - 2027 (Kilotons, USD Million)

4.3.3. Others

4.3.3.1. Market estimates & forecasts, 2016 - 2027 (Kilotons, USD Million)

CHAPTER 5. ULTRA HIGH PURITY SILICON CARBIDE MARKET: REGIONAL ESTIMATES & TREND ANALYSIS

5.1. Regional Market Snapshot

5.2. Definition & Scope

5.3. North America

5.3.1. Market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

5.3.2. Market estimates and forecasts, by application, 2016 - 2027 (USD Million)

5.3.3. U.S.

5.3.3.1. Market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

5.3.3.2. Market estimates and forecasts, by application, 2016 - 2027 (USD Million)

5.3.4. Canada

5.3.4.1. Market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

5.3.4.2. Market estimates and forecasts, by application, 2016 - 2027 (USD Million)

5.3.5. Mexico

5.3.5.1. Market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

5.3.5.2. Market estimates and forecasts, by application, 2016 - 2027 (USD Million)

5.4. Europe

5.4.1. Market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

5.4.2. Market estimates and forecasts, by application, 2016 - 2027 (USD Million)

5.4.3. Germany

5.4.3.1. Market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

5.4.3.2. Market estimates and forecasts, by application, 2016 - 2027 (USD Million)

5.4.4. U.K.

5.4.4.1. Market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

5.4.4.2. Market estimates and forecasts, by application, 2016 - 2027 (USD Million)

5.4.5. France

5.4.5.1. Market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

5.4.5.2. Market estimates and forecasts, by application, 2016 - 2027 (USD Million)

5.5. Asia Pacific

5.5.1. Market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

5.5.2. Market estimates and forecasts, by application, 2016 - 2027 (Kilotons, USD Million)

5.5.3. China

5.5.3.1. Market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

5.5.3.2. Market estimates and forecasts, by application, 2016 - 2027 (Kilotons, USD Million)

5.5.4. Japan

5.5.4.1. Market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

5.5.4.2. Market estimates and forecasts, by application, 2016 - 2027 (USD Million)

5.5.5. India

5.5.5.1. Market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

5.5.5.2. Market estimates and forecasts, by application, 2016 - 2027 (Kilotons, USD Million)

5.6. Central & South America

5.6.1. Market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

5.6.2. Market estimates and forecasts, by application, 2016 - 2027 (USD Million)

5.6.3. Brazil

5.6.3.1. Market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

5.6.3.2. Market estimates and forecasts, by application, 2016 - 2027 (Kilotons, USD Million)

5.7. Middle East & Africa

5.7.1. Market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

5.7.2. Market estimates and forecasts, by application, 2016 - 2027 (Kilotons, USD Million)

CHAPTER 6. ULTRA HIGH PURITY SILICON CARBIDE MARKET - COMPETITIVE ANALYSIS

6.1. Key global players & recent developments & their impact on the industry

6.2. Vendor Landscape

6.2.1. List of potential end-users

6.3. Company market positioning

CHAPTER 7. COMPANY PROFILES

7.1. Washington Mills

7.1.1. Company Overview

7.1.2. Financial Performance

7.1.3. Product Benchmarking

7.1.4. Strategic Initiatives

7.2. CoorsTek Inc.

7.2.1. Company Overview

7.2.2. Financial Performance

7.2.3. Product Benchmarking

7.2.4. Strategic Initiatives

7.3. JJISCO Inc.

7.3.1. Company Overview

7.3.2. Financial Performance

7.3.3. Product Benchmarking

7.3.4. Strategic Initiatives

7.4. Pacific Rundum Co., Ltd.

7.4.1. Company Overview

7.4.2. Financial Performance

7.4.3. Product Benchmarking

7.4.4. Strategic Initiatives

7.5. American Elements

7.5.1. Company Overview

7.5.2. Financial Performance

7.5.3. Product Benchmarking

7.5.4. Strategic Initiatives

7.6. LG Innotek

7.6.1. Company Overview

7.6.2. Financial Performance

7.6.3. Product Benchmarking

7.6.4. Strategic Initiatives

List Of Tables

LIST OF TABLES

Table 1. Ultra high purity silicon carbide market estimates and forecasts in semiconductor, 2016 - 2027 (Kilotons, USD Million)

Table 2. Ultra high purity silicon carbide market estimates and forecasts in LEDs, 2016 - 2027 (Kilotons, USD Million)

Table 3. Ultra High Purity Silicon Carbide market estimates and forecasts, in other applications, 2016 - 2027 (Kilotons, USD Million)

Table 4. North America ultra high purity silicon carbide market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

Table 5. North America ultra high purity silicon carbide market estimates and forecasts, by application, 2016 - 2027 (Kilotons, USD Million)

Table 6. U.S. ultra high purity silicon carbide market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

Table 7. U.S. ultra high purity silicon carbide market estimates and forecasts, by application, 2016 - 2027 (Kilotons, USD Million)

Table 8. Canada ultra high purity silicon carbide market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

Table 9. Canada ultra high purity silicon carbide market estimates and forecasts, by application, 2016 - 2027 (Kilotons, USD Million)

Table 10. Mexico ultra high purity silicon carbide market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

Table 11. Mexico ultra high purity silicon carbide market estimates and forecasts, by application, 2016 - 2027 (Kilotons, USD Million)

Table 12. Europe ultra high purity silicon carbide market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

Table 13. Europe ultra high purity silicon carbide market estimates and forecasts, by application, 2016 - 2027 (Kilotons, USD Million)

Table 14. Germany ultra high purity silicon carbide market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

Table 15. Germany ultra high purity silicon carbide market estimates and forecasts, by application, 2016 - 2027 (Kilotons, USD Million)

Table 16. U.K. ultra high purity silicon carbide market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

Table 17. U.K. ultra high purity silicon carbide market estimates and forecasts, by application, 2016 - 2027 (Kilotons, USD Million)

Table 18. France ultra high purity silicon carbide market estimates and forecasts, 2016 -

2027 (Kilotons, USD Million)

Table 19. France ultra high purity silicon carbide market estimates and forecasts, by application, 2016 - 2027 (Kilotons, USD Million)

Table 20. Asia Pacific ultra high purity silicon carbide market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

Table 21. Asia Pacific ultra high purity silicon carbide market estimates and forecasts, by application, 2016 - 2027 (Kilotons, USD Million)

Table 22. China ultra high purity silicon carbide market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

Table 23. China ultra high purity silicon carbide market estimates and forecasts, by application, 2016 - 2027 (Kilotons, USD Million)

Table 24. India ultra high purity silicon carbide market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

Table 25. India ultra high purity silicon carbide market estimates and forecasts, by application, 2016 - 2027 (Kilotons, USD Million)

Table 26. Japan ultra high purity silicon carbide market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

Table 27. Japan ultra high purity silicon carbide market estimates and forecasts, by application, 2016 - 2027 (Kilotons, USD Million)

Table 28. Central & South America ultra high purity silicon carbide market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

Table 29. Central & South America ultra high purity silicon carbide market estimates and forecasts, by application, 2016 - 2027 (Kilotons, USD Million)

Table 30. Brazil ultra high purity silicon carbide market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

Table 31. Brazil ultra high purity silicon carbide market estimates and forecasts, by application, 2016 - 2027 (Kilotons, USD Million)

Table 32. Middle East & Africa ultra high purity silicon carbide market estimates and forecasts, 2016 - 2027 (Kilotons, USD Million)

Table 33. Middle East & Africa ultra high purity silicon carbide market estimates and forecasts, by application, 2016 - 2027 (Kilotons, USD Million)

List Of Figures

LIST OF FIGURES

- Fig. 1 Ultra high purity silicon carbide: Market segmentation
- Fig. 2 Information procurement
- Fig. 3 Data analysis models
- Fig. 4 Market formulation and validation
- Fig. 5 Data validating & publishing
- Fig. 6 Ultra High Purity Silicon Carbide market, 2016 - 2027 (Revenue - USD Million, Volume - Kilotons)
- Fig. 7 Penetration & growth prospect mapping
- Fig. 8 Value chain analysis
- Fig. 9 Market driver analysis
- Fig. 10 Market restraint analysis
- Fig. 11 Porter's analysis
- Fig. 12 PESTEL analysis
- Fig. 13 Ultra High Purity Silicon Carbide market: Application movement analysis, 2019 & 2027
- Fig. 14 Regional snapshot
- Fig. 15 Ultra High Purity Silicon Carbide market: Regional movement analysis, 2019 & 2027
- Fig. 16 Ultra High Purity Silicon Carbide market - Competitive outlook
- Fig. 17 SWOT Analysis

I would like to order

Product name: Ultra High Purity Silicon Carbide Market Size, Share & Trends Analysis Report By Application (Semiconductor, LEDs), By Region (North America, Europe, APAC, CSA, MEA), And Segment Forecasts, 2020 - 2027

Product link: <https://marketpublishers.com/r/U4CB2983C708EN.html>

Price: US\$ 5,950.00 (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/U4CB2983C708EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below

and fax the completed form to +44 20 7900 3970