

# Global Infrared Grade Germanium Single Crystal Supply, Demand and Key Producers, 2023-2029

<https://marketpublishers.com/r/G5405A8772AAEN.html>

Date: November 2023

Pages: 101

Price: US\$ 4,480.00 (Single User License)

ID: G5405A8772AAEN

## Abstracts

The global Infrared Grade Germanium Single Crystal market size is expected to reach \$ 70 million by 2029, rising at a market growth of 3.4% CAGR during the forecast period (2023-2029).

Infrared Grade Germanium Single Crystal is a crucial material in infrared optics and optoelectronic applications, with a promising market outlook. The market size is continually expanding, driven by the increasing demand in the military, medical, aerospace, and industrial sectors for high-quality infrared optical components. Particularly in areas such as infrared spectroscopy, infrared imaging, and infrared communication, Infrared Grade Germanium Single Crystal with its exceptional transmission properties is widely used for manufacturing infrared lenses, windows, and detectors. In the future, as infrared technology advances and the market continues to grow, Infrared Grade Germanium Single Crystal is expected to maintain its growth trajectory to meet the demand for high-performance infrared optical materials across various industries.

Infrared grade Germanium single crystal refers to high-purity, single-crystal Germanium material that is specifically designed and grown for use in infrared (IR) optical applications. Germanium (Ge) is a semiconductor material with excellent IR optical properties, making it ideal for various applications in the infrared spectrum.

This report studies the global Infrared Grade Germanium Single Crystal production, demand, key manufacturers, and key regions.

This report is a detailed and comprehensive analysis of the world market for Infrared Grade Germanium Single Crystal, and provides market size (US\$ million) and Year-

over-Year (YoY) Growth, considering 2022 as the base year. This report explores demand trends and competition, as well as details the characteristics of Infrared Grade Germanium Single Crystal that contribute to its increasing demand across many markets.

Highlights and key features of the study

Global Infrared Grade Germanium Single Crystal total production and demand, 2018-2029, (Tons)

Global Infrared Grade Germanium Single Crystal total production value, 2018-2029, (USD Million)

Global Infrared Grade Germanium Single Crystal production by region & country, production, value, CAGR, 2018-2029, (USD Million) & (Tons)

Global Infrared Grade Germanium Single Crystal consumption by region & country, CAGR, 2018-2029 & (Tons)

U.S. VS China: Infrared Grade Germanium Single Crystal domestic production, consumption, key domestic manufacturers and share

Global Infrared Grade Germanium Single Crystal production by manufacturer, production, price, value and market share 2018-2023, (USD Million) & (Tons)

Global Infrared Grade Germanium Single Crystal production by Type, production, value, CAGR, 2018-2029, (USD Million) & (Tons)

Global Infrared Grade Germanium Single Crystal production by Application production, value, CAGR, 2018-2029, (USD Million) & (Tons).

This reports profiles key players in the global Infrared Grade Germanium Single Crystal market based on the following parameters – company overview, production, value, price, gross margin, product portfolio, geographical presence, and key developments. Key companies covered as a part of this study include China Germanium, Yunnan Germanium, Chihong Zinc and Germanium, Umicore, Jenoptik and GRINM Guojing Advanced Materials, etc.

This report also provides key insights about market drivers, restraints, opportunities,

new product launches or approvals.

Stakeholders would have ease in decision-making through various strategy matrices used in analyzing the World Infrared Grade Germanium Single Crystal market.

Detailed Segmentation:

Each section contains quantitative market data including market by value (US\$ Millions), volume (production, consumption) & (Tons) and average price (US\$/Ton) by manufacturer, by Type, and by Application. Data is given for the years 2018-2029 by year with 2022 as the base year, 2023 as the estimate year, and 2024-2029 as the forecast year.

Global Infrared Grade Germanium Single Crystal Market, By Region:

United States

China

Europe

Japan

South Korea

ASEAN

India

Rest of World

Global Infrared Grade Germanium Single Crystal Market, Segmentation by Type

Czochralski Process

Vertical Gradient Freeze Method

## Global Infrared Grade Germanium Single Crystal Market, Segmentation by Application

Military Use

Civil Use

### Companies Profiled:

China Germanium

Yunnan Germanium

Chihong Zinc and Germanium

Umicore

Jenoptik

GRINM Guojing Advanced Materials

### Key Questions Answered

1. How big is the global Infrared Grade Germanium Single Crystal market?
2. What is the demand of the global Infrared Grade Germanium Single Crystal market?
3. What is the year over year growth of the global Infrared Grade Germanium Single Crystal market?
4. What is the production and production value of the global Infrared Grade Germanium Single Crystal market?
5. Who are the key producers in the global Infrared Grade Germanium Single Crystal market?

## Contents

### 1 SUPPLY SUMMARY

- 1.1 Infrared Grade Germanium Single Crystal Introduction
- 1.2 World Infrared Grade Germanium Single Crystal Supply & Forecast
  - 1.2.1 World Infrared Grade Germanium Single Crystal Production Value (2018 & 2022 & 2029)
  - 1.2.2 World Infrared Grade Germanium Single Crystal Production (2018-2029)
  - 1.2.3 World Infrared Grade Germanium Single Crystal Pricing Trends (2018-2029)
- 1.3 World Infrared Grade Germanium Single Crystal Production by Region (Based on Production Site)
  - 1.3.1 World Infrared Grade Germanium Single Crystal Production Value by Region (2018-2029)
  - 1.3.2 World Infrared Grade Germanium Single Crystal Production by Region (2018-2029)
  - 1.3.3 World Infrared Grade Germanium Single Crystal Average Price by Region (2018-2029)
  - 1.3.4 North America Infrared Grade Germanium Single Crystal Production (2018-2029)
  - 1.3.5 Europe Infrared Grade Germanium Single Crystal Production (2018-2029)
  - 1.3.6 China Infrared Grade Germanium Single Crystal Production (2018-2029)
  - 1.3.7 Japan Infrared Grade Germanium Single Crystal Production (2018-2029)
- 1.4 Market Drivers, Restraints and Trends
  - 1.4.1 Infrared Grade Germanium Single Crystal Market Drivers
  - 1.4.2 Factors Affecting Demand
  - 1.4.3 Infrared Grade Germanium Single Crystal Major Market Trends

### 2 DEMAND SUMMARY

- 2.1 World Infrared Grade Germanium Single Crystal Demand (2018-2029)
- 2.2 World Infrared Grade Germanium Single Crystal Consumption by Region
  - 2.2.1 World Infrared Grade Germanium Single Crystal Consumption by Region (2018-2023)
  - 2.2.2 World Infrared Grade Germanium Single Crystal Consumption Forecast by Region (2024-2029)
- 2.3 United States Infrared Grade Germanium Single Crystal Consumption (2018-2029)
- 2.4 China Infrared Grade Germanium Single Crystal Consumption (2018-2029)
- 2.5 Europe Infrared Grade Germanium Single Crystal Consumption (2018-2029)
- 2.6 Japan Infrared Grade Germanium Single Crystal Consumption (2018-2029)

- 2.7 South Korea Infrared Grade Germanium Single Crystal Consumption (2018-2029)
- 2.8 ASEAN Infrared Grade Germanium Single Crystal Consumption (2018-2029)
- 2.9 India Infrared Grade Germanium Single Crystal Consumption (2018-2029)

### **3 WORLD INFRARED GRADE GERMANIUM SINGLE CRYSTAL MANUFACTURERS COMPETITIVE ANALYSIS**

- 3.1 World Infrared Grade Germanium Single Crystal Production Value by Manufacturer (2018-2023)
- 3.2 World Infrared Grade Germanium Single Crystal Production by Manufacturer (2018-2023)
- 3.3 World Infrared Grade Germanium Single Crystal Average Price by Manufacturer (2018-2023)
- 3.4 Infrared Grade Germanium Single Crystal Company Evaluation Quadrant
- 3.5 Industry Rank and Concentration Rate (CR)
  - 3.5.1 Global Infrared Grade Germanium Single Crystal Industry Rank of Major Manufacturers
  - 3.5.2 Global Concentration Ratios (CR4) for Infrared Grade Germanium Single Crystal in 2022
  - 3.5.3 Global Concentration Ratios (CR8) for Infrared Grade Germanium Single Crystal in 2022
- 3.6 Infrared Grade Germanium Single Crystal Market: Overall Company Footprint Analysis
  - 3.6.1 Infrared Grade Germanium Single Crystal Market: Region Footprint
  - 3.6.2 Infrared Grade Germanium Single Crystal Market: Company Product Type Footprint
  - 3.6.3 Infrared Grade Germanium Single Crystal Market: Company Product Application Footprint
- 3.7 Competitive Environment
  - 3.7.1 Historical Structure of the Industry
  - 3.7.2 Barriers of Market Entry
  - 3.7.3 Factors of Competition
- 3.8 New Entrant and Capacity Expansion Plans
- 3.9 Mergers, Acquisition, Agreements, and Collaborations

### **4 UNITED STATES VS CHINA VS REST OF THE WORLD**

- 4.1 United States VS China: Infrared Grade Germanium Single Crystal Production Value Comparison

4.1.1 United States VS China: Infrared Grade Germanium Single Crystal Production Value Comparison (2018 & 2022 & 2029)

4.1.2 United States VS China: Infrared Grade Germanium Single Crystal Production Value Market Share Comparison (2018 & 2022 & 2029)

4.2 United States VS China: Infrared Grade Germanium Single Crystal Production Comparison

4.2.1 United States VS China: Infrared Grade Germanium Single Crystal Production Comparison (2018 & 2022 & 2029)

4.2.2 United States VS China: Infrared Grade Germanium Single Crystal Production Market Share Comparison (2018 & 2022 & 2029)

4.3 United States VS China: Infrared Grade Germanium Single Crystal Consumption Comparison

4.3.1 United States VS China: Infrared Grade Germanium Single Crystal Consumption Comparison (2018 & 2022 & 2029)

4.3.2 United States VS China: Infrared Grade Germanium Single Crystal Consumption Market Share Comparison (2018 & 2022 & 2029)

4.4 United States Based Infrared Grade Germanium Single Crystal Manufacturers and Market Share, 2018-2023

4.4.1 United States Based Infrared Grade Germanium Single Crystal Manufacturers, Headquarters and Production Site (States, Country)

4.4.2 United States Based Manufacturers Infrared Grade Germanium Single Crystal Production Value (2018-2023)

4.4.3 United States Based Manufacturers Infrared Grade Germanium Single Crystal Production (2018-2023)

4.5 China Based Infrared Grade Germanium Single Crystal Manufacturers and Market Share

4.5.1 China Based Infrared Grade Germanium Single Crystal Manufacturers, Headquarters and Production Site (Province, Country)

4.5.2 China Based Manufacturers Infrared Grade Germanium Single Crystal Production Value (2018-2023)

4.5.3 China Based Manufacturers Infrared Grade Germanium Single Crystal Production (2018-2023)

4.6 Rest of World Based Infrared Grade Germanium Single Crystal Manufacturers and Market Share, 2018-2023

4.6.1 Rest of World Based Infrared Grade Germanium Single Crystal Manufacturers, Headquarters and Production Site (State, Country)

4.6.2 Rest of World Based Manufacturers Infrared Grade Germanium Single Crystal Production Value (2018-2023)

4.6.3 Rest of World Based Manufacturers Infrared Grade Germanium Single Crystal



Production (2018-2023)

## **5 MARKET ANALYSIS BY TYPE**

5.1 World Infrared Grade Germanium Single Crystal Market Size Overview by Type: 2018 VS 2022 VS 2029

5.2 Segment Introduction by Type

5.2.1 Czochralski Process

5.2.2 Vertical Gradient Freeze Method

5.3 Market Segment by Type

5.3.1 World Infrared Grade Germanium Single Crystal Production by Type (2018-2029)

5.3.2 World Infrared Grade Germanium Single Crystal Production Value by Type (2018-2029)

5.3.3 World Infrared Grade Germanium Single Crystal Average Price by Type (2018-2029)

## **6 MARKET ANALYSIS BY APPLICATION**

6.1 World Infrared Grade Germanium Single Crystal Market Size Overview by Application: 2018 VS 2022 VS 2029

6.2 Segment Introduction by Application

6.2.1 Military Use

6.2.2 Civil Use

6.3 Market Segment by Application

6.3.1 World Infrared Grade Germanium Single Crystal Production by Application (2018-2029)

6.3.2 World Infrared Grade Germanium Single Crystal Production Value by Application (2018-2029)

6.3.3 World Infrared Grade Germanium Single Crystal Average Price by Application (2018-2029)

## **7 COMPANY PROFILES**

7.1 China Germanium

7.1.1 China Germanium Details

7.1.2 China Germanium Major Business

7.1.3 China Germanium Infrared Grade Germanium Single Crystal Product and Services



- 7.1.4 China Germanium Infrared Grade Germanium Single Crystal Production, Price, Value, Gross Margin and Market Share (2018-2023)
- 7.1.5 China Germanium Recent Developments/Updates
- 7.1.6 China Germanium Competitive Strengths & Weaknesses
- 7.2 Yunnan Germanium
  - 7.2.1 Yunnan Germanium Details
  - 7.2.2 Yunnan Germanium Major Business
  - 7.2.3 Yunnan Germanium Infrared Grade Germanium Single Crystal Product and Services
  - 7.2.4 Yunnan Germanium Infrared Grade Germanium Single Crystal Production, Price, Value, Gross Margin and Market Share (2018-2023)
  - 7.2.5 Yunnan Germanium Recent Developments/Updates
  - 7.2.6 Yunnan Germanium Competitive Strengths & Weaknesses
- 7.3 Chihong Zinc and Germanium
  - 7.3.1 Chihong Zinc and Germanium Details
  - 7.3.2 Chihong Zinc and Germanium Major Business
  - 7.3.3 Chihong Zinc and Germanium Infrared Grade Germanium Single Crystal Product and Services
  - 7.3.4 Chihong Zinc and Germanium Infrared Grade Germanium Single Crystal Production, Price, Value, Gross Margin and Market Share (2018-2023)
  - 7.3.5 Chihong Zinc and Germanium Recent Developments/Updates
  - 7.3.6 Chihong Zinc and Germanium Competitive Strengths & Weaknesses
- 7.4 Umicore
  - 7.4.1 Umicore Details
  - 7.4.2 Umicore Major Business
  - 7.4.3 Umicore Infrared Grade Germanium Single Crystal Product and Services
  - 7.4.4 Umicore Infrared Grade Germanium Single Crystal Production, Price, Value, Gross Margin and Market Share (2018-2023)
  - 7.4.5 Umicore Recent Developments/Updates
  - 7.4.6 Umicore Competitive Strengths & Weaknesses
- 7.5 Jenoptik
  - 7.5.1 Jenoptik Details
  - 7.5.2 Jenoptik Major Business
  - 7.5.3 Jenoptik Infrared Grade Germanium Single Crystal Product and Services
  - 7.5.4 Jenoptik Infrared Grade Germanium Single Crystal Production, Price, Value, Gross Margin and Market Share (2018-2023)
  - 7.5.5 Jenoptik Recent Developments/Updates
  - 7.5.6 Jenoptik Competitive Strengths & Weaknesses
- 7.6 GRINM Guojing Advanced Materials

- 7.6.1 GRINM Guojing Advanced Materials Details
- 7.6.2 GRINM Guojing Advanced Materials Major Business
- 7.6.3 GRINM Guojing Advanced Materials Infrared Grade Germanium Single Crystal Product and Services
- 7.6.4 GRINM Guojing Advanced Materials Infrared Grade Germanium Single Crystal Production, Price, Value, Gross Margin and Market Share (2018-2023)
- 7.6.5 GRINM Guojing Advanced Materials Recent Developments/Updates
- 7.6.6 GRINM Guojing Advanced Materials Competitive Strengths & Weaknesses

## **8 INDUSTRY CHAIN ANALYSIS**

- 8.1 Infrared Grade Germanium Single Crystal Industry Chain
- 8.2 Infrared Grade Germanium Single Crystal Upstream Analysis
  - 8.2.1 Infrared Grade Germanium Single Crystal Core Raw Materials
  - 8.2.2 Main Manufacturers of Infrared Grade Germanium Single Crystal Core Raw Materials
- 8.3 Midstream Analysis
- 8.4 Downstream Analysis
- 8.5 Infrared Grade Germanium Single Crystal Production Mode
- 8.6 Infrared Grade Germanium Single Crystal Procurement Model
- 8.7 Infrared Grade Germanium Single Crystal Industry Sales Model and Sales Channels
  - 8.7.1 Infrared Grade Germanium Single Crystal Sales Model
  - 8.7.2 Infrared Grade Germanium Single Crystal Typical Customers

## **9 RESEARCH FINDINGS AND CONCLUSION**

## **10 APPENDIX**

- 10.1 Methodology
- 10.2 Research Process and Data Source
- 10.3 Disclaimer

## List Of Tables

### LIST OF TABLES

Table 1. World Infrared Grade Germanium Single Crystal Production Value by Region (2018, 2022 and 2029) & (USD Million)

Table 2. World Infrared Grade Germanium Single Crystal Production Value by Region (2018-2023) & (USD Million)

Table 3. World Infrared Grade Germanium Single Crystal Production Value by Region (2024-2029) & (USD Million)

Table 4. World Infrared Grade Germanium Single Crystal Production Value Market Share by Region (2018-2023)

Table 5. World Infrared Grade Germanium Single Crystal Production Value Market Share by Region (2024-2029)

Table 6. World Infrared Grade Germanium Single Crystal Production by Region (2018-2023) & (Tons)

Table 7. World Infrared Grade Germanium Single Crystal Production by Region (2024-2029) & (Tons)

Table 8. World Infrared Grade Germanium Single Crystal Production Market Share by Region (2018-2023)

Table 9. World Infrared Grade Germanium Single Crystal Production Market Share by Region (2024-2029)

Table 10. World Infrared Grade Germanium Single Crystal Average Price by Region (2018-2023) & (US\$/Ton)

Table 11. World Infrared Grade Germanium Single Crystal Average Price by Region (2024-2029) & (US\$/Ton)

Table 12. Infrared Grade Germanium Single Crystal Major Market Trends

Table 13. World Infrared Grade Germanium Single Crystal Consumption Growth Rate Forecast by Region (2018 & 2022 & 2029) & (Tons)

Table 14. World Infrared Grade Germanium Single Crystal Consumption by Region (2018-2023) & (Tons)

Table 15. World Infrared Grade Germanium Single Crystal Consumption Forecast by Region (2024-2029) & (Tons)

Table 16. World Infrared Grade Germanium Single Crystal Production Value by Manufacturer (2018-2023) & (USD Million)

Table 17. Production Value Market Share of Key Infrared Grade Germanium Single Crystal Producers in 2022

Table 18. World Infrared Grade Germanium Single Crystal Production by Manufacturer (2018-2023) & (Tons)

Table 19. Production Market Share of Key Infrared Grade Germanium Single Crystal Producers in 2022

Table 20. World Infrared Grade Germanium Single Crystal Average Price by Manufacturer (2018-2023) & (US\$/Ton)

Table 21. Global Infrared Grade Germanium Single Crystal Company Evaluation Quadrant

Table 22. World Infrared Grade Germanium Single Crystal Industry Rank of Major Manufacturers, Based on Production Value in 2022

Table 23. Head Office and Infrared Grade Germanium Single Crystal Production Site of Key Manufacturer

Table 24. Infrared Grade Germanium Single Crystal Market: Company Product Type Footprint

Table 25. Infrared Grade Germanium Single Crystal Market: Company Product Application Footprint

Table 26. Infrared Grade Germanium Single Crystal Competitive Factors

Table 27. Infrared Grade Germanium Single Crystal New Entrant and Capacity Expansion Plans

Table 28. Infrared Grade Germanium Single Crystal Mergers & Acquisitions Activity

Table 29. United States VS China Infrared Grade Germanium Single Crystal Production Value Comparison, (2018 & 2022 & 2029) & (USD Million)

Table 30. United States VS China Infrared Grade Germanium Single Crystal Production Comparison, (2018 & 2022 & 2029) & (Tons)

Table 31. United States VS China Infrared Grade Germanium Single Crystal Consumption Comparison, (2018 & 2022 & 2029) & (Tons)

Table 32. United States Based Infrared Grade Germanium Single Crystal Manufacturers, Headquarters and Production Site (States, Country)

Table 33. United States Based Manufacturers Infrared Grade Germanium Single Crystal Production Value, (2018-2023) & (USD Million)

Table 34. United States Based Manufacturers Infrared Grade Germanium Single Crystal Production Value Market Share (2018-2023)

Table 35. United States Based Manufacturers Infrared Grade Germanium Single Crystal Production (2018-2023) & (Tons)

Table 36. United States Based Manufacturers Infrared Grade Germanium Single Crystal Production Market Share (2018-2023)

Table 37. China Based Infrared Grade Germanium Single Crystal Manufacturers, Headquarters and Production Site (Province, Country)

Table 38. China Based Manufacturers Infrared Grade Germanium Single Crystal Production Value, (2018-2023) & (USD Million)

Table 39. China Based Manufacturers Infrared Grade Germanium Single Crystal

Production Value Market Share (2018-2023)

Table 40. China Based Manufacturers Infrared Grade Germanium Single Crystal Production (2018-2023) & (Tons)

Table 41. China Based Manufacturers Infrared Grade Germanium Single Crystal Production Market Share (2018-2023)

Table 42. Rest of World Based Infrared Grade Germanium Single Crystal Manufacturers, Headquarters and Production Site (States, Country)

Table 43. Rest of World Based Manufacturers Infrared Grade Germanium Single Crystal Production Value, (2018-2023) & (USD Million)

Table 44. Rest of World Based Manufacturers Infrared Grade Germanium Single Crystal Production Value Market Share (2018-2023)

Table 45. Rest of World Based Manufacturers Infrared Grade Germanium Single Crystal Production (2018-2023) & (Tons)

Table 46. Rest of World Based Manufacturers Infrared Grade Germanium Single Crystal Production Market Share (2018-2023)

Table 47. World Infrared Grade Germanium Single Crystal Production Value by Type, (USD Million), 2018 & 2022 & 2029

Table 48. World Infrared Grade Germanium Single Crystal Production by Type (2018-2023) & (Tons)

Table 49. World Infrared Grade Germanium Single Crystal Production by Type (2024-2029) & (Tons)

Table 50. World Infrared Grade Germanium Single Crystal Production Value by Type (2018-2023) & (USD Million)

Table 51. World Infrared Grade Germanium Single Crystal Production Value by Type (2024-2029) & (USD Million)

Table 52. World Infrared Grade Germanium Single Crystal Average Price by Type (2018-2023) & (US\$/Ton)

Table 53. World Infrared Grade Germanium Single Crystal Average Price by Type (2024-2029) & (US\$/Ton)

Table 54. World Infrared Grade Germanium Single Crystal Production Value by Application, (USD Million), 2018 & 2022 & 2029

Table 55. World Infrared Grade Germanium Single Crystal Production by Application (2018-2023) & (Tons)

Table 56. World Infrared Grade Germanium Single Crystal Production by Application (2024-2029) & (Tons)

Table 57. World Infrared Grade Germanium Single Crystal Production Value by Application (2018-2023) & (USD Million)

Table 58. World Infrared Grade Germanium Single Crystal Production Value by Application (2024-2029) & (USD Million)

Table 59. World Infrared Grade Germanium Single Crystal Average Price by Application (2018-2023) & (US\$/Ton)

Table 60. World Infrared Grade Germanium Single Crystal Average Price by Application (2024-2029) & (US\$/Ton)

Table 61. China Germanium Basic Information, Manufacturing Base and Competitors

Table 62. China Germanium Major Business

Table 63. China Germanium Infrared Grade Germanium Single Crystal Product and Services

Table 64. China Germanium Infrared Grade Germanium Single Crystal Production (Tons), Price (US\$/Ton), Production Value (USD Million), Gross Margin and Market Share (2018-2023)

Table 65. China Germanium Recent Developments/Updates

Table 66. China Germanium Competitive Strengths & Weaknesses

Table 67. Yunnan Germanium Basic Information, Manufacturing Base and Competitors

Table 68. Yunnan Germanium Major Business

Table 69. Yunnan Germanium Infrared Grade Germanium Single Crystal Product and Services

Table 70. Yunnan Germanium Infrared Grade Germanium Single Crystal Production (Tons), Price (US\$/Ton), Production Value (USD Million), Gross Margin and Market Share (2018-2023)

Table 71. Yunnan Germanium Recent Developments/Updates

Table 72. Yunnan Germanium Competitive Strengths & Weaknesses

Table 73. Chihong Zinc and Germanium Basic Information, Manufacturing Base and Competitors

Table 74. Chihong Zinc and Germanium Major Business

Table 75. Chihong Zinc and Germanium Infrared Grade Germanium Single Crystal Product and Services

Table 76. Chihong Zinc and Germanium Infrared Grade Germanium Single Crystal Production (Tons), Price (US\$/Ton), Production Value (USD Million), Gross Margin and Market Share (2018-2023)

Table 77. Chihong Zinc and Germanium Recent Developments/Updates

Table 78. Chihong Zinc and Germanium Competitive Strengths & Weaknesses

Table 79. Umicore Basic Information, Manufacturing Base and Competitors

Table 80. Umicore Major Business

Table 81. Umicore Infrared Grade Germanium Single Crystal Product and Services

Table 82. Umicore Infrared Grade Germanium Single Crystal Production (Tons), Price (US\$/Ton), Production Value (USD Million), Gross Margin and Market Share (2018-2023)

Table 83. Umicore Recent Developments/Updates



Table 84. Umicore Competitive Strengths & Weaknesses

Table 85. Jenoptik Basic Information, Manufacturing Base and Competitors

Table 86. Jenoptik Major Business

Table 87. Jenoptik Infrared Grade Germanium Single Crystal Product and Services

Table 88. Jenoptik Infrared Grade Germanium Single Crystal Production (Tons), Price (US\$/Ton), Production Value (USD Million), Gross Margin and Market Share (2018-2023)

Table 89. Jenoptik Recent Developments/Updates

Table 90. GRINM Guojing Advanced Materials Basic Information, Manufacturing Base and Competitors

Table 91. GRINM Guojing Advanced Materials Major Business

Table 92. GRINM Guojing Advanced Materials Infrared Grade Germanium Single Crystal Product and Services

Table 93. GRINM Guojing Advanced Materials Infrared Grade Germanium Single Crystal Production (Tons), Price (US\$/Ton), Production Value (USD Million), Gross Margin and Market Share (2018-2023)

Table 94. Global Key Players of Infrared Grade Germanium Single Crystal Upstream (Raw Materials)

Table 95. Infrared Grade Germanium Single Crystal Typical Customers

Table 96. Infrared Grade Germanium Single Crystal Typical Distributors

## **LIST OF FIGURE**

Figure 1. Infrared Grade Germanium Single Crystal Picture

Figure 2. World Infrared Grade Germanium Single Crystal Production Value: 2018 & 2022 & 2029, (USD Million)

Figure 3. World Infrared Grade Germanium Single Crystal Production Value and Forecast (2018-2029) & (USD Million)

Figure 4. World Infrared Grade Germanium Single Crystal Production (2018-2029) & (Tons)

Figure 5. World Infrared Grade Germanium Single Crystal Average Price (2018-2029) & (US\$/Ton)

Figure 6. World Infrared Grade Germanium Single Crystal Production Value Market Share by Region (2018-2029)

Figure 7. World Infrared Grade Germanium Single Crystal Production Market Share by Region (2018-2029)

Figure 8. North America Infrared Grade Germanium Single Crystal Production (2018-2029) & (Tons)

Figure 9. Europe Infrared Grade Germanium Single Crystal Production (2018-2029) &



(Tons)

Figure 10. China Infrared Grade Germanium Single Crystal Production (2018-2029) &

(Tons)

Figure 11. Japan Infrared Grade Germanium Single Crystal Production (2018-2029) &

(Tons)

Figure 12. Infrared Grade Germanium Single Crystal Market Drivers

Figure 13. Factors Affecting Demand

Figure 14. World Infrared Grade Germanium Single Crystal Consumption (2018-2029) &

(Tons)

Figure 15. World Infrared Grade Germanium Single Crystal Consumption Market Share by Region (2018-2029)

Figure 16. United States Infrared Grade Germanium Single Crystal Consumption (2018-2029) & (Tons)

Figure 17. China Infrared Grade Germanium Single Crystal Consumption (2018-2029) & (Tons)

Figure 18. Europe Infrared Grade Germanium Single Crystal Consumption (2018-2029) & (Tons)

Figure 19. Japan Infrared Grade Germanium Single Crystal Consumption (2018-2029) & (Tons)

Figure 20. South Korea Infrared Grade Germanium Single Crystal Consumption (2018-2029) & (Tons)

Figure 21. ASEAN Infrared Grade Germanium Single Crystal Consumption (2018-2029) & (Tons)

Figure 22. India Infrared Grade Germanium Single Crystal Consumption (2018-2029) & (Tons)

Figure 23. Producer Shipments of Infrared Grade Germanium Single Crystal by Manufacturer Revenue (\$MM) and Market Share (%): 2022

Figure 24. Global Four-firm Concentration Ratios (CR4) for Infrared Grade Germanium Single Crystal Markets in 2022

Figure 25. Global Four-firm Concentration Ratios (CR8) for Infrared Grade Germanium Single Crystal Markets in 2022

Figure 26. United States VS China: Infrared Grade Germanium Single Crystal Production Value Market Share Comparison (2018 & 2022 & 2029)

Figure 27. United States VS China: Infrared Grade Germanium Single Crystal Production Market Share Comparison (2018 & 2022 & 2029)

Figure 28. United States VS China: Infrared Grade Germanium Single Crystal Consumption Market Share Comparison (2018 & 2022 & 2029)

Figure 29. United States Based Manufacturers Infrared Grade Germanium Single Crystal Production Market Share 2022

Figure 30. China Based Manufacturers Infrared Grade Germanium Single Crystal Production Market Share 2022

Figure 31. Rest of World Based Manufacturers Infrared Grade Germanium Single Crystal Production Market Share 2022

Figure 32. World Infrared Grade Germanium Single Crystal Production Value by Type, (USD Million), 2018 & 2022 & 2029

Figure 33. World Infrared Grade Germanium Single Crystal Production Value Market Share by Type in 2022

Figure 34. Czochralski Process

Figure 35. Vertical Gradient Freeze Method

Figure 36. World Infrared Grade Germanium Single Crystal Production Market Share by Type (2018-2029)

Figure 37. World Infrared Grade Germanium Single Crystal Production Value Market Share by Type (2018-2029)

Figure 38. World Infrared Grade Germanium Single Crystal Average Price by Type (2018-2029) & (US\$/Ton)

Figure 39. World Infrared Grade Germanium Single Crystal Production Value by Application, (USD Million), 2018 & 2022 & 2029

Figure 40. World Infrared Grade Germanium Single Crystal Production Value Market Share by Application in 2022

Figure 41. Military Use

Figure 42. Civil Use

Figure 43. World Infrared Grade Germanium Single Crystal Production Market Share by Application (2018-2029)

Figure 44. World Infrared Grade Germanium Single Crystal Production Value Market Share by Application (2018-2029)

Figure 45. World Infrared Grade Germanium Single Crystal Average Price by Application (2018-2029) & (US\$/Ton)

Figure 46. Infrared Grade Germanium Single Crystal Industry Chain

Figure 47. Infrared Grade Germanium Single Crystal Procurement Model

Figure 48. Infrared Grade Germanium Single Crystal Sales Model

Figure 49. Infrared Grade Germanium Single Crystal Sales Channels, Direct Sales, and Distribution

Figure 50. Methodology

Figure 51. Research Process and Data Source

## I would like to order

Product name: Global Infrared Grade Germanium Single Crystal Supply, Demand and Key Producers, 2023-2029

Product link: <https://marketpublishers.com/r/G5405A8772AAEN.html>

Price: US\$ 4,480.00 (Single User License / Electronic Delivery)

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

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/G5405A8772AAEN.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

