

# Global Black Phosphorus Crystal Market Research Report 2023

<https://marketpublishers.com/r/G2A47C710A74EN.html>

Date: October 2023

Pages: 67

Price: US\$ 2,900.00 (Single User License)

ID: G2A47C710A74EN

## Abstracts

This report aims to provide a comprehensive presentation of the global market for Black Phosphorus Crystal, with both quantitative and qualitative analysis, to help readers develop business/growth strategies, assess the market competitive situation, analyze their position in the current marketplace, and make informed business decisions regarding Black Phosphorus Crystal.

The Black Phosphorus Crystal market size, estimations, and forecasts are provided in terms of output/shipments (K Tons) and revenue (\$ millions), considering 2022 as the base year, with history and forecast data for the period from 2018 to 2029. This report segments the global Black Phosphorus Crystal market comprehensively. Regional market sizes, concerning products by type, by application and by players, are also provided.

For a more in-depth understanding of the market, the report provides profiles of the competitive landscape, key competitors, and their respective market ranks. The report also discusses technological trends and new product developments.

The report will help the Black Phosphorus Crystal manufacturers, new entrants, and industry chain related companies in this market with information on the revenues, production, and average price for the overall market and the sub-segments across the different segments, by company, by type, by application, and by regions.

By Company

HQ Graphene

ACS Material

2Dsemiconductors USA

Novarials Corporation

### Segment by Type

Alpha Black Phosphorus

Beta Black Phosphorus

### Segment by Application

Lithium Batteries

Hydrogen Energy

Chip Manufacturing

Communication

Medical

Others

### Production by Region

North America

Europe

China

Japan

## Consumption by Region

### North America

United States

Canada

### Europe

Germany

France

U.K.

Italy

Russia

### Asia-Pacific

China

Japan

South Korea

China Taiwan

Southeast Asia

India

### Latin America

Mexico

Brazil

## Core Chapters

Chapter 1: Introduces the report scope of the report, executive summary of different market segments (by region, by type, by application, etc), including the market size of each market segment, future development potential, and so on. It offers a high-level view of the current state of the market and its likely evolution in the short to mid-term, and long term.

Chapter 2: Detailed analysis of Black Phosphorus Crystal manufacturers competitive landscape, price, production and value market share, latest development plan, merger, and acquisition information, etc.

Chapter 3: Production/output, value of Black Phosphorus Crystal by region/country. It provides a quantitative analysis of the market size and development potential of each region in the next six years.

Chapter 4: Consumption of Black Phosphorus Crystal in regional level and country level. It provides a quantitative analysis of the market size and development potential of each region and its main countries and introduces the market development, future development prospects, market space, and production of each country in the world.

Chapter 5: Provides the analysis of various market segments by type, covering the market size and development potential of each market segment, to help readers find the blue ocean market in different market segments.

Chapter 6: Provides the analysis of various market segments by application, covering the market size and development potential of each market segment, to help readers find the blue ocean market in different downstream markets.

Chapter 7: Provides profiles of key players, introducing the basic situation of the key companies in the market in detail, including product production/output, value, price, gross margin, product introduction, recent development, etc.

Chapter 8: Analysis of industrial chain, including the upstream and downstream of the industry.

Chapter 9: Introduces the market dynamics, latest developments of the market, the

driving factors and restrictive factors of the market, the challenges and risks faced by manufacturers in the industry, and the analysis of relevant policies in the industry.

Chapter 10: The main points and conclusions of the report.

## Contents

### **1 BLACK PHOSPHORUS CRYSTAL MARKET OVERVIEW**

- 1.1 Product Definition
- 1.2 Black Phosphorus Crystal Segment by Type
  - 1.2.1 Global Black Phosphorus Crystal Market Value Growth Rate Analysis by Type 2022 VS 2029
  - 1.2.2 Alpha Black Phosphorus
  - 1.2.3 Beta Black Phosphorus
- 1.3 Black Phosphorus Crystal Segment by Application
  - 1.3.1 Global Black Phosphorus Crystal Market Value Growth Rate Analysis by Application: 2022 VS 2029
  - 1.3.2 Lithium Batteries
  - 1.3.3 Hydrogen Energy
  - 1.3.4 Chip Manufacturing
  - 1.3.5 Communication
  - 1.3.6 Medical
  - 1.3.7 Others
- 1.4 Global Market Growth Prospects
  - 1.4.1 Global Black Phosphorus Crystal Production Value Estimates and Forecasts (2018-2029)
  - 1.4.2 Global Black Phosphorus Crystal Production Capacity Estimates and Forecasts (2018-2029)
  - 1.4.3 Global Black Phosphorus Crystal Production Estimates and Forecasts (2018-2029)
  - 1.4.4 Global Black Phosphorus Crystal Market Average Price Estimates and Forecasts (2018-2029)
- 1.5 Assumptions and Limitations

### **2 MARKET COMPETITION BY MANUFACTURERS**

- 2.1 Global Black Phosphorus Crystal Production Market Share by Manufacturers (2018-2023)
- 2.2 Global Black Phosphorus Crystal Production Value Market Share by Manufacturers (2018-2023)
- 2.3 Global Key Players of Black Phosphorus Crystal, Industry Ranking, 2021 VS 2022 VS 2023
- 2.4 Global Black Phosphorus Crystal Market Share by Company Type (Tier 1, Tier 2)

and Tier 3)

2.5 Global Black Phosphorus Crystal Average Price by Manufacturers (2018-2023)

2.6 Global Key Manufacturers of Black Phosphorus Crystal, Manufacturing Base Distribution and Headquarters

2.7 Global Key Manufacturers of Black Phosphorus Crystal, Product Offered and Application

2.8 Global Key Manufacturers of Black Phosphorus Crystal, Date of Enter into This Industry

2.9 Black Phosphorus Crystal Market Competitive Situation and Trends

2.9.1 Black Phosphorus Crystal Market Concentration Rate

2.9.2 Global 5 and 10 Largest Black Phosphorus Crystal Players Market Share by Revenue

2.10 Mergers & Acquisitions, Expansion

### **3 BLACK PHOSPHORUS CRYSTAL PRODUCTION BY REGION**

3.1 Global Black Phosphorus Crystal Production Value Estimates and Forecasts by Region: 2018 VS 2022 VS 2029

3.2 Global Black Phosphorus Crystal Production Value by Region (2018-2029)

3.2.1 Global Black Phosphorus Crystal Production Value Market Share by Region (2018-2023)

3.2.2 Global Forecasted Production Value of Black Phosphorus Crystal by Region (2024-2029)

3.3 Global Black Phosphorus Crystal Production Estimates and Forecasts by Region: 2018 VS 2022 VS 2029

3.4 Global Black Phosphorus Crystal Production by Region (2018-2029)

3.4.1 Global Black Phosphorus Crystal Production Market Share by Region (2018-2023)

3.4.2 Global Forecasted Production of Black Phosphorus Crystal by Region (2024-2029)

3.5 Global Black Phosphorus Crystal Market Price Analysis by Region (2018-2023)

3.6 Global Black Phosphorus Crystal Production and Value, Year-over-Year Growth

3.6.1 North America Black Phosphorus Crystal Production Value Estimates and Forecasts (2018-2029)

3.6.2 Europe Black Phosphorus Crystal Production Value Estimates and Forecasts (2018-2029)

3.6.3 China Black Phosphorus Crystal Production Value Estimates and Forecasts (2018-2029)

3.6.4 Japan Black Phosphorus Crystal Production Value Estimates and Forecasts

(2018-2029)

## **4 BLACK PHOSPHORUS CRYSTAL CONSUMPTION BY REGION**

4.1 Global Black Phosphorus Crystal Consumption Estimates and Forecasts by Region:  
2018 VS 2022 VS 2029

4.2 Global Black Phosphorus Crystal Consumption by Region (2018-2029)

4.2.1 Global Black Phosphorus Crystal Consumption by Region (2018-2023)

4.2.2 Global Black Phosphorus Crystal Forecasted Consumption by Region  
(2024-2029)

4.3 North America

4.3.1 North America Black Phosphorus Crystal Consumption Growth Rate by Country:  
2018 VS 2022 VS 2029

4.3.2 North America Black Phosphorus Crystal Consumption by Country (2018-2029)

4.3.3 United States

4.3.4 Canada

4.4 Europe

4.4.1 Europe Black Phosphorus Crystal Consumption Growth Rate by Country: 2018  
VS 2022 VS 2029

4.4.2 Europe Black Phosphorus Crystal Consumption by Country (2018-2029)

4.4.3 Germany

4.4.4 France

4.4.5 U.K.

4.4.6 Italy

4.4.7 Russia

4.5 Asia Pacific

4.5.1 Asia Pacific Black Phosphorus Crystal Consumption Growth Rate by Region:  
2018 VS 2022 VS 2029

4.5.2 Asia Pacific Black Phosphorus Crystal Consumption by Region (2018-2029)

4.5.3 China

4.5.4 Japan

4.5.5 South Korea

4.5.6 China Taiwan

4.5.7 Southeast Asia

4.5.8 India

4.6 Latin America, Middle East & Africa

4.6.1 Latin America, Middle East & Africa Black Phosphorus Crystal Consumption  
Growth Rate by Country: 2018 VS 2022 VS 2029

4.6.2 Latin America, Middle East & Africa Black Phosphorus Crystal Consumption by



## Country (2018-2029)

- 4.6.3 Mexico
- 4.6.4 Brazil
- 4.6.5 Turkey
- 4.6.6 GCC Countries

## 5 SEGMENT BY TYPE

### 5.1 Global Black Phosphorus Crystal Production by Type (2018-2029)

- 5.1.1 Global Black Phosphorus Crystal Production by Type (2018-2023)
- 5.1.2 Global Black Phosphorus Crystal Production by Type (2024-2029)
- 5.1.3 Global Black Phosphorus Crystal Production Market Share by Type (2018-2029)

### 5.2 Global Black Phosphorus Crystal Production Value by Type (2018-2029)

- 5.2.1 Global Black Phosphorus Crystal Production Value by Type (2018-2023)
- 5.2.2 Global Black Phosphorus Crystal Production Value by Type (2024-2029)
- 5.2.3 Global Black Phosphorus Crystal Production Value Market Share by Type (2018-2029)

### 5.3 Global Black Phosphorus Crystal Price by Type (2018-2029)

## 6 SEGMENT BY APPLICATION

### 6.1 Global Black Phosphorus Crystal Production by Application (2018-2029)

- 6.1.1 Global Black Phosphorus Crystal Production by Application (2018-2023)
- 6.1.2 Global Black Phosphorus Crystal Production by Application (2024-2029)
- 6.1.3 Global Black Phosphorus Crystal Production Market Share by Application (2018-2029)

### 6.2 Global Black Phosphorus Crystal Production Value by Application (2018-2029)

- 6.2.1 Global Black Phosphorus Crystal Production Value by Application (2018-2023)
- 6.2.2 Global Black Phosphorus Crystal Production Value by Application (2024-2029)
- 6.2.3 Global Black Phosphorus Crystal Production Value Market Share by Application (2018-2029)

### 6.3 Global Black Phosphorus Crystal Price by Application (2018-2029)

## 7 KEY COMPANIES PROFILED

### 7.1 HQ Graphene

- 7.1.1 HQ Graphene Black Phosphorus Crystal Corporation Information
- 7.1.2 HQ Graphene Black Phosphorus Crystal Product Portfolio
- 7.1.3 HQ Graphene Black Phosphorus Crystal Production, Value, Price and Gross

## Margin (2018-2023)

7.1.4 HQ Graphene Main Business and Markets Served

7.1.5 HQ Graphene Recent Developments/Updates

## 7.2 ACS Material

7.2.1 ACS Material Black Phosphorus Crystal Corporation Information

7.2.2 ACS Material Black Phosphorus Crystal Product Portfolio

7.2.3 ACS Material Black Phosphorus Crystal Production, Value, Price and Gross

## Margin (2018-2023)

7.2.4 ACS Material Main Business and Markets Served

7.2.5 ACS Material Recent Developments/Updates

## 7.3 2Dsemiconductors USA

7.3.1 2Dsemiconductors USA Black Phosphorus Crystal Corporation Information

7.3.2 2Dsemiconductors USA Black Phosphorus Crystal Product Portfolio

7.3.3 2Dsemiconductors USA Black Phosphorus Crystal Production, Value, Price and

## Gross Margin (2018-2023)

7.3.4 2Dsemiconductors USA Main Business and Markets Served

7.3.5 2Dsemiconductors USA Recent Developments/Updates

## 7.4 Novarials Corporation

7.4.1 Novarials Corporation Black Phosphorus Crystal Corporation Information

7.4.2 Novarials Corporation Black Phosphorus Crystal Product Portfolio

7.4.3 Novarials Corporation Black Phosphorus Crystal Production, Value, Price and

## Gross Margin (2018-2023)

7.4.4 Novarials Corporation Main Business and Markets Served

7.4.5 Novarials Corporation Recent Developments/Updates

## **8 INDUSTRY CHAIN AND SALES CHANNELS ANALYSIS**

8.1 Black Phosphorus Crystal Industry Chain Analysis

8.2 Black Phosphorus Crystal Key Raw Materials

8.2.1 Key Raw Materials

8.2.2 Raw Materials Key Suppliers

8.3 Black Phosphorus Crystal Production Mode & Process

8.4 Black Phosphorus Crystal Sales and Marketing

8.4.1 Black Phosphorus Crystal Sales Channels

8.4.2 Black Phosphorus Crystal Distributors

8.5 Black Phosphorus Crystal Customers

## **9 BLACK PHOSPHORUS CRYSTAL MARKET DYNAMICS**

- 9.1 Black Phosphorus Crystal Industry Trends
- 9.2 Black Phosphorus Crystal Market Drivers
- 9.3 Black Phosphorus Crystal Market Challenges
- 9.4 Black Phosphorus Crystal Market Restraints

## **10 RESEARCH FINDING AND CONCLUSION**

## **11 METHODOLOGY AND DATA SOURCE**

- 11.1 Methodology/Research Approach
  - 11.1.1 Research Programs/Design
  - 11.1.2 Market Size Estimation
  - 11.1.3 Market Breakdown and Data Triangulation
- 11.2 Data Source
  - 11.2.1 Secondary Sources
  - 11.2.2 Primary Sources
- 11.3 Author List
- 11.4 Disclaimer

## List Of Tables

### LIST OF TABLES

Table 1. Global Black Phosphorus Crystal Market Value by Type, (US\$ Million) & (2022 VS 2029)

Table 2. Global Black Phosphorus Crystal Market Value by Application, (US\$ Million) & (2022 VS 2029)

Table 3. Global Black Phosphorus Crystal Production Capacity (K Tons) by Manufacturers in 2022

Table 4. Global Black Phosphorus Crystal Production by Manufacturers (2018-2023) & (K Tons)

Table 5. Global Black Phosphorus Crystal Production Market Share by Manufacturers (2018-2023)

Table 6. Global Black Phosphorus Crystal Production Value by Manufacturers (2018-2023) & (US\$ Million)

Table 7. Global Black Phosphorus Crystal Production Value Share by Manufacturers (2018-2023)

Table 8. Global Black Phosphorus Crystal Industry Ranking 2021 VS 2022 VS 2023

Table 9. Company Type (Tier 1, Tier 2 and Tier 3) & (based on the Revenue in Black Phosphorus Crystal as of 2022)

Table 10. Global Market Black Phosphorus Crystal Average Price by Manufacturers (US\$/Ton) & (2018-2023)

Table 11. Manufacturers Black Phosphorus Crystal Production Sites and Area Served

Table 12. Manufacturers Black Phosphorus Crystal Product Types

Table 13. Global Black Phosphorus Crystal Manufacturers Market Concentration Ratio (CR5 and HHI)

Table 14. Mergers & Acquisitions, Expansion

Table 15. Global Black Phosphorus Crystal Production Value by Region: 2018 VS 2022 VS 2029 (US\$ Million)

Table 16. Global Black Phosphorus Crystal Production Value (US\$ Million) by Region (2018-2023)

Table 17. Global Black Phosphorus Crystal Production Value Market Share by Region (2018-2023)

Table 18. Global Black Phosphorus Crystal Production Value (US\$ Million) Forecast by Region (2024-2029)

Table 19. Global Black Phosphorus Crystal Production Value Market Share Forecast by Region (2024-2029)

Table 20. Global Black Phosphorus Crystal Production Comparison by Region: 2018 VS

2022 VS 2029 (K Tons)

Table 21. Global Black Phosphorus Crystal Production (K Tons) by Region (2018-2023)

Table 22. Global Black Phosphorus Crystal Production Market Share by Region (2018-2023)

Table 23. Global Black Phosphorus Crystal Production (K Tons) Forecast by Region (2024-2029)

Table 24. Global Black Phosphorus Crystal Production Market Share Forecast by Region (2024-2029)

Table 25. Global Black Phosphorus Crystal Market Average Price (US\$/Ton) by Region (2018-2023)

Table 26. Global Black Phosphorus Crystal Market Average Price (US\$/Ton) by Region (2024-2029)

Table 27. Global Black Phosphorus Crystal Consumption Growth Rate by Region: 2018 VS 2022 VS 2029 (K Tons)

Table 28. Global Black Phosphorus Crystal Consumption by Region (2018-2023) & (K Tons)

Table 29. Global Black Phosphorus Crystal Consumption Market Share by Region (2018-2023)

Table 30. Global Black Phosphorus Crystal Forecasted Consumption by Region (2024-2029) & (K Tons)

Table 31. Global Black Phosphorus Crystal Forecasted Consumption Market Share by Region (2018-2023)

Table 32. North America Black Phosphorus Crystal Consumption Growth Rate by Country: 2018 VS 2022 VS 2029 (K Tons)

Table 33. North America Black Phosphorus Crystal Consumption by Country (2018-2023) & (K Tons)

Table 34. North America Black Phosphorus Crystal Consumption by Country (2024-2029) & (K Tons)

Table 35. Europe Black Phosphorus Crystal Consumption Growth Rate by Country: 2018 VS 2022 VS 2029 (K Tons)

Table 36. Europe Black Phosphorus Crystal Consumption by Country (2018-2023) & (K Tons)

Table 37. Europe Black Phosphorus Crystal Consumption by Country (2024-2029) & (K Tons)

Table 38. Asia Pacific Black Phosphorus Crystal Consumption Growth Rate by Region: 2018 VS 2022 VS 2029 (K Tons)

Table 39. Asia Pacific Black Phosphorus Crystal Consumption by Region (2018-2023) & (K Tons)

Table 40. Asia Pacific Black Phosphorus Crystal Consumption by Region (2024-2029) &

(K Tons)

Table 41. Latin America, Middle East & Africa Black Phosphorus Crystal Consumption Growth Rate by Country: 2018 VS 2022 VS 2029 (K Tons)

Table 42. Latin America, Middle East & Africa Black Phosphorus Crystal Consumption by Country (2018-2023) & (K Tons)

Table 43. Latin America, Middle East & Africa Black Phosphorus Crystal Consumption by Country (2024-2029) & (K Tons)

Table 44. Global Black Phosphorus Crystal Production (K Tons) by Type (2018-2023)

Table 45. Global Black Phosphorus Crystal Production (K Tons) by Type (2024-2029)

Table 46. Global Black Phosphorus Crystal Production Market Share by Type (2018-2023)

Table 47. Global Black Phosphorus Crystal Production Market Share by Type (2024-2029)

Table 48. Global Black Phosphorus Crystal Production Value (US\$ Million) by Type (2018-2023)

Table 49. Global Black Phosphorus Crystal Production Value (US\$ Million) by Type (2024-2029)

Table 50. Global Black Phosphorus Crystal Production Value Share by Type (2018-2023)

Table 51. Global Black Phosphorus Crystal Production Value Share by Type (2024-2029)

Table 52. Global Black Phosphorus Crystal Price (US\$/Ton) by Type (2018-2023)

Table 53. Global Black Phosphorus Crystal Price (US\$/Ton) by Type (2024-2029)

Table 54. Global Black Phosphorus Crystal Production (K Tons) by Application (2018-2023)

Table 55. Global Black Phosphorus Crystal Production (K Tons) by Application (2024-2029)

Table 56. Global Black Phosphorus Crystal Production Market Share by Application (2018-2023)

Table 57. Global Black Phosphorus Crystal Production Market Share by Application (2024-2029)

Table 58. Global Black Phosphorus Crystal Production Value (US\$ Million) by Application (2018-2023)

Table 59. Global Black Phosphorus Crystal Production Value (US\$ Million) by Application (2024-2029)

Table 60. Global Black Phosphorus Crystal Production Value Share by Application (2018-2023)

Table 61. Global Black Phosphorus Crystal Production Value Share by Application (2024-2029)

Table 62. Global Black Phosphorus Crystal Price (US\$/Ton) by Application (2018-2023)

Table 63. Global Black Phosphorus Crystal Price (US\$/Ton) by Application (2024-2029)

Table 64. HQ Graphene Black Phosphorus Crystal Corporation Information

Table 65. HQ Graphene Specification and Application

Table 66. HQ Graphene Black Phosphorus Crystal Production (K Tons), Value (US\$ Million), Price (US\$/Ton) and Gross Margin (2018-2023)

Table 67. HQ Graphene Main Business and Markets Served

Table 68. HQ Graphene Recent Developments/Updates

Table 69. ACS Material Black Phosphorus Crystal Corporation Information

Table 70. ACS Material Specification and Application

Table 71. ACS Material Black Phosphorus Crystal Production (K Tons), Value (US\$ Million), Price (US\$/Ton) and Gross Margin (2018-2023)

Table 72. ACS Material Main Business and Markets Served

Table 73. ACS Material Recent Developments/Updates

Table 74. 2Dsemiconductors USA Black Phosphorus Crystal Corporation Information

Table 75. 2Dsemiconductors USA Specification and Application

Table 76. 2Dsemiconductors USA Black Phosphorus Crystal Production (K Tons), Value (US\$ Million), Price (US\$/Ton) and Gross Margin (2018-2023)

Table 77. 2Dsemiconductors USA Main Business and Markets Served

Table 78. 2Dsemiconductors USA Recent Developments/Updates

Table 79. Novarials Corporation Black Phosphorus Crystal Corporation Information

Table 80. Novarials Corporation Specification and Application

Table 81. Novarials Corporation Black Phosphorus Crystal Production (K Tons), Value (US\$ Million), Price (US\$/Ton) and Gross Margin (2018-2023)

Table 82. Novarials Corporation Main Business and Markets Served

Table 83. Novarials Corporation Recent Developments/Updates

Table 84. Key Raw Materials Lists

Table 85. Raw Materials Key Suppliers Lists

Table 86. Black Phosphorus Crystal Distributors List

Table 87. Black Phosphorus Crystal Customers List

Table 88. Black Phosphorus Crystal Market Trends

Table 89. Black Phosphorus Crystal Market Drivers

Table 90. Black Phosphorus Crystal Market Challenges

Table 91. Black Phosphorus Crystal Market Restraints

Table 92. Research Programs/Design for This Report

Table 93. Key Data Information from Secondary Sources

Table 94. Key Data Information from Primary Sources

## List Of Figures

### LIST OF FIGURES

- Figure 1. Product Picture of Black Phosphorus Crystal
- Figure 2. Global Black Phosphorus Crystal Market Value by Type, (US\$ Million) & (2022 VS 2029)
- Figure 3. Global Black Phosphorus Crystal Market Share by Type: 2022 VS 2029
- Figure 4. Alpha Black Phosphorus Product Picture
- Figure 5. Beta Black Phosphorus Product Picture
- Figure 6. Global Black Phosphorus Crystal Market Value by Application, (US\$ Million) & (2022 VS 2029)
- Figure 7. Global Black Phosphorus Crystal Market Share by Application: 2022 VS 2029
- Figure 8. Lithium Batteries
- Figure 9. Hydrogen Energy
- Figure 10. Chip Manufacturing
- Figure 11. Communication
- Figure 12. Medical
- Figure 13. Others
- Figure 14. Global Black Phosphorus Crystal Production Value (US\$ Million), 2018 VS 2022 VS 2029
- Figure 15. Global Black Phosphorus Crystal Production Value (US\$ Million) & (2018-2029)
- Figure 16. Global Black Phosphorus Crystal Production Capacity (K Tons) & (2018-2029)
- Figure 17. Global Black Phosphorus Crystal Production (K Tons) & (2018-2029)
- Figure 18. Global Black Phosphorus Crystal Average Price (US\$/Ton) & (2018-2029)
- Figure 19. Black Phosphorus Crystal Report Years Considered
- Figure 20. Black Phosphorus Crystal Production Share by Manufacturers in 2022
- Figure 21. Black Phosphorus Crystal Market Share by Company Type (Tier 1, Tier 2, and Tier 3): 2018 VS 2022
- Figure 22. The Global 5 and 10 Largest Players: Market Share by Black Phosphorus Crystal Revenue in 2022
- Figure 23. Global Black Phosphorus Crystal Production Value by Region: 2018 VS 2022 VS 2029 (US\$ Million)
- Figure 24. Global Black Phosphorus Crystal Production Value Market Share by Region: 2018 VS 2022 VS 2029
- Figure 25. Global Black Phosphorus Crystal Production Comparison by Region: 2018 VS 2022 VS 2029 (K Tons)



Figure 26. Global Black Phosphorus Crystal Production Market Share by Region: 2018 VS 2022 VS 2029

Figure 27. North America Black Phosphorus Crystal Production Value (US\$ Million) Growth Rate (2018-2029)

Figure 28. Europe Black Phosphorus Crystal Production Value (US\$ Million) Growth Rate (2018-2029)

Figure 29. China Black Phosphorus Crystal Production Value (US\$ Million) Growth Rate (2018-2029)

Figure 30. Japan Black Phosphorus Crystal Production Value (US\$ Million) Growth Rate (2018-2029)

Figure 31. Global Black Phosphorus Crystal Consumption by Region: 2018 VS 2022 VS 2029 (K Tons)

Figure 32. Global Black Phosphorus Crystal Consumption Market Share by Region: 2018 VS 2022 VS 2029

Figure 33. North America Black Phosphorus Crystal Consumption and Growth Rate (2018-2023) & (K Tons)

Figure 34. North America Black Phosphorus Crystal Consumption Market Share by Country (2018-2029)

Figure 35. Canada Black Phosphorus Crystal Consumption and Growth Rate (2018-2023) & (K Tons)

Figure 36. U.S. Black Phosphorus Crystal Consumption and Growth Rate (2018-2023) & (K Tons)

Figure 37. Europe Black Phosphorus Crystal Consumption and Growth Rate (2018-2023) & (K Tons)

Figure 38. Europe Black Phosphorus Crystal Consumption Market Share by Country (2018-2029)

Figure 39. Germany Black Phosphorus Crystal Consumption and Growth Rate (2018-2023) & (K Tons)

Figure 40. France Black Phosphorus Crystal Consumption and Growth Rate (2018-2023) & (K Tons)

Figure 41. U.K. Black Phosphorus Crystal Consumption and Growth Rate (2018-2023) & (K Tons)

Figure 42. Italy Black Phosphorus Crystal Consumption and Growth Rate (2018-2023) & (K Tons)

Figure 43. Russia Black Phosphorus Crystal Consumption and Growth Rate (2018-2023) & (K Tons)

Figure 44. Asia Pacific Black Phosphorus Crystal Consumption and Growth Rate (2018-2023) & (K Tons)

Figure 45. Asia Pacific Black Phosphorus Crystal Consumption Market Share by

Regions (2018-2029)

Figure 46. China Black Phosphorus Crystal Consumption and Growth Rate (2018-2023) & (K Tons)

Figure 47. Japan Black Phosphorus Crystal Consumption and Growth Rate (2018-2023) & (K Tons)

Figure 48. South Korea Black Phosphorus Crystal Consumption and Growth Rate (2018-2023) & (K Tons)

Figure 49. China Taiwan Black Phosphorus Crystal Consumption and Growth Rate (2018-2023) & (K Tons)

Figure 50. Southeast Asia Black Phosphorus Crystal Consumption and Growth Rate (2018-2023) & (K Tons)

Figure 51. India Black Phosphorus Crystal Consumption and Growth Rate (2018-2023) & (K Tons)

Figure 52. Latin America, Middle East & Africa Black Phosphorus Crystal Consumption and Growth Rate (2018-2023) & (K Tons)

Figure 53. Latin America, Middle East & Africa Black Phosphorus Crystal Consumption Market Share by Country (2018-2029)

Figure 54. Mexico Black Phosphorus Crystal Consumption and Growth Rate (2018-2023) & (K Tons)

Figure 55. Brazil Black Phosphorus Crystal Consumption and Growth Rate (2018-2023) & (K Tons)

Figure 56. Turkey Black Phosphorus Crystal Consumption and Growth Rate (2018-2023) & (K Tons)

Figure 57. GCC Countries Black Phosphorus Crystal Consumption and Growth Rate (2018-2023) & (K Tons)

Figure 58. Global Production Market Share of Black Phosphorus Crystal by Type (2018-2029)

Figure 59. Global Production Value Market Share of Black Phosphorus Crystal by Type (2018-2029)

Figure 60. Global Black Phosphorus Crystal Price (US\$/Ton) by Type (2018-2029)

Figure 61. Global Production Market Share of Black Phosphorus Crystal by Application (2018-2029)

Figure 62. Global Production Value Market Share of Black Phosphorus Crystal by Application (2018-2029)

Figure 63. Global Black Phosphorus Crystal Price (US\$/Ton) by Application (2018-2029)

Figure 64. Black Phosphorus Crystal Value Chain

Figure 65. Black Phosphorus Crystal Production Process

Figure 66. Channels of Distribution (Direct Vs Distribution)

Figure 67. Distributors Profiles

Figure 68. Bottom-up and Top-down Approaches for This Report

Figure 69. Data Triangulation

## I would like to order

Product name: Global Black Phosphorus Crystal Market Research Report 2023

Product link: <https://marketpublishers.com/r/G2A47C710A74EN.html>

Price: US\$ 2,900.00 (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/G2A47C710A74EN.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