

Global Single Crystal Black Phosphorus Market Growth 2023-2029

<https://marketpublishers.com/r/GDC65F51AFB7EN.html>

Date: October 2023

Pages: 105

Price: US\$ 3,660.00 (Single User License)

ID: GDC65F51AFB7EN

Abstracts

The report requires updating with new data and is sent in 60 hours after order is placed.

According to our LPI (LP Information) latest study, the global Single Crystal Black Phosphorus market size was valued at US\$ million in 2022. With growing demand in downstream market and recovery from influence of COVID-19 and the Russia-Ukraine War, the Single Crystal Black Phosphorus is forecast to a readjusted size of US\$ million by 2029 with a CAGR of % during review period.

The research report highlights the growth potential of the global Single Crystal Black Phosphorus market. With recovery from influence of COVID-19 and the Russia-Ukraine War, Single Crystal Black Phosphorus are expected to show stable growth in the future market. However, product differentiation, reducing costs, and supply chain optimization remain crucial for the widespread adoption of Single Crystal Black Phosphorus. Market players need to invest in research and development, forge strategic partnerships, and align their offerings with evolving consumer preferences to capitalize on the immense opportunities presented by the Single Crystal Black Phosphorus market.

Key Features:

The report on Single Crystal Black Phosphorus market reflects various aspects and provide valuable insights into the industry.

Market Size and Growth: The research report provide an overview of the current size and growth of the Single Crystal Black Phosphorus market. It may include historical data, market segmentation by Type (e.g., 4N, 5N), and regional breakdowns.

Market Drivers and Challenges: The report can identify and analyse the factors driving the growth of the Single Crystal Black Phosphorus market, such as government regulations, environmental concerns, technological advancements, and changing consumer preferences. It can also highlight the challenges faced by the industry, including infrastructure limitations, range anxiety, and high upfront costs.

Competitive Landscape: The research report provides analysis of the competitive landscape within the Single Crystal Black Phosphorus market. It includes profiles of key players, their market share, strategies, and product offerings. The report can also highlight emerging players and their potential impact on the market.

Technological Developments: The research report can delve into the latest technological developments in the Single Crystal Black Phosphorus industry. This include advancements in Single Crystal Black Phosphorus technology, Single Crystal Black Phosphorus new entrants, Single Crystal Black Phosphorus new investment, and other innovations that are shaping the future of Single Crystal Black Phosphorus.

Downstream Procumbent Preference: The report can shed light on customer procumbent behaviour and adoption trends in the Single Crystal Black Phosphorus market. It includes factors influencing customer ' purchasing decisions, preferences for Single Crystal Black Phosphorus product.

Government Policies and Incentives: The research report analyse the impact of government policies and incentives on the Single Crystal Black Phosphorus market. This may include an assessment of regulatory frameworks, subsidies, tax incentives, and other measures aimed at promoting Single Crystal Black Phosphorus market. The report also evaluates the effectiveness of these policies in driving market growth.

Environmental Impact and Sustainability: The research report assess the environmental impact and sustainability aspects of the Single Crystal Black Phosphorus market.

Market Forecasts and Future Outlook: Based on the analysis conducted, the research report provide market forecasts and outlook for the Single Crystal Black Phosphorus industry. This includes projections of market size, growth rates, regional trends, and predictions on technological advancements and policy developments.

Recommendations and Opportunities: The report conclude with recommendations for industry stakeholders, policymakers, and investors. It highlights potential opportunities for market players to capitalize on emerging trends, overcome challenges, and

contribute to the growth and development of the Single Crystal Black Phosphorus market.

Market Segmentation:

Single Crystal Black Phosphorus market is split by Type and by Application. For the period 2018-2029, the growth among segments provides accurate calculations and forecasts for consumption value by Type, and by Application in terms of volume and value.

Segmentation by type

4N

5N

Segmentation by application

Energy Catalysis

Detection Sensor

Biomedical

Composite Material

This report also splits the market by region:

Americas

United States

Canada

Mexico

Brazil

APAC

China

Japan

Korea

Southeast Asia

India

Australia

Europe

Germany

France

UK

Italy

Russia

Middle East & Africa

Egypt

South Africa

Israel

Turkey

GCC Countries

The below companies that are profiled have been selected based on inputs gathered from primary experts and analyzing the company's coverage, product portfolio, its market penetration.

ACS Material

2D Semiconductors

Mophos

6Carbon Technology

American Elements

HQ Graphene

Manchester Nanomaterials

WEISTRON

Smart-elements

Taizhou Sunano Energy

Key Questions Addressed in this Report

What is the 10-year outlook for the global Single Crystal Black Phosphorus market?

What factors are driving Single Crystal Black Phosphorus market growth, globally and by region?

Which technologies are poised for the fastest growth by market and region?

How do Single Crystal Black Phosphorus market opportunities vary by end market size?

How does Single Crystal Black Phosphorus break out type, application?

What are the influences of COVID-19 and Russia-Ukraine war?

Contents

1 SCOPE OF THE REPORT

- 1.1 Market Introduction
- 1.2 Years Considered
- 1.3 Research Objectives
- 1.4 Market Research Methodology
- 1.5 Research Process and Data Source
- 1.6 Economic Indicators
- 1.7 Currency Considered
- 1.8 Market Estimation Caveats

2 EXECUTIVE SUMMARY

- 2.1 World Market Overview
 - 2.1.1 Global Single Crystal Black Phosphorus Annual Sales 2018-2029
 - 2.1.2 World Current & Future Analysis for Single Crystal Black Phosphorus by Geographic Region, 2018, 2022 & 2029
 - 2.1.3 World Current & Future Analysis for Single Crystal Black Phosphorus by Country/Region, 2018, 2022 & 2029
- 2.2 Single Crystal Black Phosphorus Segment by Type
 - 2.2.1 4N
 - 2.2.2 5N
- 2.3 Single Crystal Black Phosphorus Sales by Type
 - 2.3.1 Global Single Crystal Black Phosphorus Sales Market Share by Type (2018-2023)
 - 2.3.2 Global Single Crystal Black Phosphorus Revenue and Market Share by Type (2018-2023)
 - 2.3.3 Global Single Crystal Black Phosphorus Sale Price by Type (2018-2023)
- 2.4 Single Crystal Black Phosphorus Segment by Application
 - 2.4.1 Energy Catalysis
 - 2.4.2 Detection Sensor
 - 2.4.3 Biomedical
 - 2.4.4 Composite Material
- 2.5 Single Crystal Black Phosphorus Sales by Application
 - 2.5.1 Global Single Crystal Black Phosphorus Sale Market Share by Application (2018-2023)
 - 2.5.2 Global Single Crystal Black Phosphorus Revenue and Market Share by

Application (2018-2023)

2.5.3 Global Single Crystal Black Phosphorus Sale Price by Application (2018-2023)

3 GLOBAL SINGLE CRYSTAL BLACK PHOSPHORUS BY COMPANY

3.1 Global Single Crystal Black Phosphorus Breakdown Data by Company

3.1.1 Global Single Crystal Black Phosphorus Annual Sales by Company (2018-2023)

3.1.2 Global Single Crystal Black Phosphorus Sales Market Share by Company (2018-2023)

3.2 Global Single Crystal Black Phosphorus Annual Revenue by Company (2018-2023)

3.2.1 Global Single Crystal Black Phosphorus Revenue by Company (2018-2023)

3.2.2 Global Single Crystal Black Phosphorus Revenue Market Share by Company (2018-2023)

3.3 Global Single Crystal Black Phosphorus Sale Price by Company

3.4 Key Manufacturers Single Crystal Black Phosphorus Producing Area Distribution, Sales Area, Product Type

3.4.1 Key Manufacturers Single Crystal Black Phosphorus Product Location Distribution

3.4.2 Players Single Crystal Black Phosphorus Products Offered

3.5 Market Concentration Rate Analysis

3.5.1 Competition Landscape Analysis

3.5.2 Concentration Ratio (CR3, CR5 and CR10) & (2018-2023)

3.6 New Products and Potential Entrants

3.7 Mergers & Acquisitions, Expansion

4 WORLD HISTORIC REVIEW FOR SINGLE CRYSTAL BLACK PHOSPHORUS BY GEOGRAPHIC REGION

4.1 World Historic Single Crystal Black Phosphorus Market Size by Geographic Region (2018-2023)

4.1.1 Global Single Crystal Black Phosphorus Annual Sales by Geographic Region (2018-2023)

4.1.2 Global Single Crystal Black Phosphorus Annual Revenue by Geographic Region (2018-2023)

4.2 World Historic Single Crystal Black Phosphorus Market Size by Country/Region (2018-2023)

4.2.1 Global Single Crystal Black Phosphorus Annual Sales by Country/Region (2018-2023)

4.2.2 Global Single Crystal Black Phosphorus Annual Revenue by Country/Region

(2018-2023)

4.3 Americas Single Crystal Black Phosphorus Sales Growth

4.4 APAC Single Crystal Black Phosphorus Sales Growth

4.5 Europe Single Crystal Black Phosphorus Sales Growth

4.6 Middle East & Africa Single Crystal Black Phosphorus Sales Growth

5 AMERICAS

5.1 Americas Single Crystal Black Phosphorus Sales by Country

5.1.1 Americas Single Crystal Black Phosphorus Sales by Country (2018-2023)

5.1.2 Americas Single Crystal Black Phosphorus Revenue by Country (2018-2023)

5.2 Americas Single Crystal Black Phosphorus Sales by Type

5.3 Americas Single Crystal Black Phosphorus Sales by Application

5.4 United States

5.5 Canada

5.6 Mexico

5.7 Brazil

6 APAC

6.1 APAC Single Crystal Black Phosphorus Sales by Region

6.1.1 APAC Single Crystal Black Phosphorus Sales by Region (2018-2023)

6.1.2 APAC Single Crystal Black Phosphorus Revenue by Region (2018-2023)

6.2 APAC Single Crystal Black Phosphorus Sales by Type

6.3 APAC Single Crystal Black Phosphorus Sales by Application

6.4 China

6.5 Japan

6.6 South Korea

6.7 Southeast Asia

6.8 India

6.9 Australia

6.10 China Taiwan

7 EUROPE

7.1 Europe Single Crystal Black Phosphorus by Country

7.1.1 Europe Single Crystal Black Phosphorus Sales by Country (2018-2023)

7.1.2 Europe Single Crystal Black Phosphorus Revenue by Country (2018-2023)

7.2 Europe Single Crystal Black Phosphorus Sales by Type

7.3 Europe Single Crystal Black Phosphorus Sales by Application

7.4 Germany

7.5 France

7.6 UK

7.7 Italy

7.8 Russia

8 MIDDLE EAST & AFRICA

8.1 Middle East & Africa Single Crystal Black Phosphorus by Country

8.1.1 Middle East & Africa Single Crystal Black Phosphorus Sales by Country (2018-2023)

8.1.2 Middle East & Africa Single Crystal Black Phosphorus Revenue by Country (2018-2023)

8.2 Middle East & Africa Single Crystal Black Phosphorus Sales by Type

8.3 Middle East & Africa Single Crystal Black Phosphorus Sales by Application

8.4 Egypt

8.5 South Africa

8.6 Israel

8.7 Turkey

8.8 GCC Countries

9 MARKET DRIVERS, CHALLENGES AND TRENDS

9.1 Market Drivers & Growth Opportunities

9.2 Market Challenges & Risks

9.3 Industry Trends

10 MANUFACTURING COST STRUCTURE ANALYSIS

10.1 Raw Material and Suppliers

10.2 Manufacturing Cost Structure Analysis of Single Crystal Black Phosphorus

10.3 Manufacturing Process Analysis of Single Crystal Black Phosphorus

10.4 Industry Chain Structure of Single Crystal Black Phosphorus

11 MARKETING, DISTRIBUTORS AND CUSTOMER

11.1 Sales Channel

11.1.1 Direct Channels

- 11.1.2 Indirect Channels
- 11.2 Single Crystal Black Phosphorus Distributors
- 11.3 Single Crystal Black Phosphorus Customer

12 WORLD FORECAST REVIEW FOR SINGLE CRYSTAL BLACK PHOSPHORUS BY GEOGRAPHIC REGION

- 12.1 Global Single Crystal Black Phosphorus Market Size Forecast by Region
 - 12.1.1 Global Single Crystal Black Phosphorus Forecast by Region (2024-2029)
 - 12.1.2 Global Single Crystal Black Phosphorus Annual Revenue Forecast by Region (2024-2029)
- 12.2 Americas Forecast by Country
- 12.3 APAC Forecast by Region
- 12.4 Europe Forecast by Country
- 12.5 Middle East & Africa Forecast by Country
- 12.6 Global Single Crystal Black Phosphorus Forecast by Type
- 12.7 Global Single Crystal Black Phosphorus Forecast by Application

13 KEY PLAYERS ANALYSIS

- 13.1 ACS Material
 - 13.1.1 ACS Material Company Information
 - 13.1.2 ACS Material Single Crystal Black Phosphorus Product Portfolios and Specifications
 - 13.1.3 ACS Material Single Crystal Black Phosphorus Sales, Revenue, Price and Gross Margin (2018-2023)
 - 13.1.4 ACS Material Main Business Overview
 - 13.1.5 ACS Material Latest Developments
- 13.2 2D Semiconductors
 - 13.2.1 2D Semiconductors Company Information
 - 13.2.2 2D Semiconductors Single Crystal Black Phosphorus Product Portfolios and Specifications
 - 13.2.3 2D Semiconductors Single Crystal Black Phosphorus Sales, Revenue, Price and Gross Margin (2018-2023)
 - 13.2.4 2D Semiconductors Main Business Overview
 - 13.2.5 2D Semiconductors Latest Developments
- 13.3 Mophos
 - 13.3.1 Mophos Company Information
 - 13.3.2 Mophos Single Crystal Black Phosphorus Product Portfolios and Specifications

13.3.3 Mophos Single Crystal Black Phosphorus Sales, Revenue, Price and Gross Margin (2018-2023)

13.3.4 Mophos Main Business Overview

13.3.5 Mophos Latest Developments

13.4 6Carbon Technology

13.4.1 6Carbon Technology Company Information

13.4.2 6Carbon Technology Single Crystal Black Phosphorus Product Portfolios and Specifications

13.4.3 6Carbon Technology Single Crystal Black Phosphorus Sales, Revenue, Price and Gross Margin (2018-2023)

13.4.4 6Carbon Technology Main Business Overview

13.4.5 6Carbon Technology Latest Developments

13.5 American Elements

13.5.1 American Elements Company Information

13.5.2 American Elements Single Crystal Black Phosphorus Product Portfolios and Specifications

13.5.3 American Elements Single Crystal Black Phosphorus Sales, Revenue, Price and Gross Margin (2018-2023)

13.5.4 American Elements Main Business Overview

13.5.5 American Elements Latest Developments

13.6 HQ Graphene

13.6.1 HQ Graphene Company Information

13.6.2 HQ Graphene Single Crystal Black Phosphorus Product Portfolios and Specifications

13.6.3 HQ Graphene Single Crystal Black Phosphorus Sales, Revenue, Price and Gross Margin (2018-2023)

13.6.4 HQ Graphene Main Business Overview

13.6.5 HQ Graphene Latest Developments

13.7 Manchester Nanomaterials

13.7.1 Manchester Nanomaterials Company Information

13.7.2 Manchester Nanomaterials Single Crystal Black Phosphorus Product Portfolios and Specifications

13.7.3 Manchester Nanomaterials Single Crystal Black Phosphorus Sales, Revenue, Price and Gross Margin (2018-2023)

13.7.4 Manchester Nanomaterials Main Business Overview

13.7.5 Manchester Nanomaterials Latest Developments

13.8 WEISTRON

13.8.1 WEISTRON Company Information

13.8.2 WEISTRON Single Crystal Black Phosphorus Product Portfolios and

Specifications

13.8.3 WEISTRON Single Crystal Black Phosphorus Sales, Revenue, Price and Gross Margin (2018-2023)

13.8.4 WEISTRON Main Business Overview

13.8.5 WEISTRON Latest Developments

13.9 Smart-elements

13.9.1 Smart-elements Company Information

13.9.2 Smart-elements Single Crystal Black Phosphorus Product Portfolios and Specifications

13.9.3 Smart-elements Single Crystal Black Phosphorus Sales, Revenue, Price and Gross Margin (2018-2023)

13.9.4 Smart-elements Main Business Overview

13.9.5 Smart-elements Latest Developments

13.10 Taizhou Sunano Energy

13.10.1 Taizhou Sunano Energy Company Information

13.10.2 Taizhou Sunano Energy Single Crystal Black Phosphorus Product Portfolios and Specifications

13.10.3 Taizhou Sunano Energy Single Crystal Black Phosphorus Sales, Revenue, Price and Gross Margin (2018-2023)

13.10.4 Taizhou Sunano Energy Main Business Overview

13.10.5 Taizhou Sunano Energy Latest Developments

14 RESEARCH FINDINGS AND CONCLUSION

List Of Tables

LIST OF TABLES

Table 1. Single Crystal Black Phosphorus Annual Sales CAGR by Geographic Region (2018, 2022 & 2029) & (\$ millions)

Table 2. Single Crystal Black Phosphorus Annual Sales CAGR by Country/Region (2018, 2022 & 2029) & (\$ millions)

Table 3. Major Players of 4N

Table 4. Major Players of 5N

Table 5. Global Single Crystal Black Phosphorus Sales by Type (2018-2023) & (kg)

Table 6. Global Single Crystal Black Phosphorus Sales Market Share by Type (2018-2023)

Table 7. Global Single Crystal Black Phosphorus Revenue by Type (2018-2023) & (\$ million)

Table 8. Global Single Crystal Black Phosphorus Revenue Market Share by Type (2018-2023)

Table 9. Global Single Crystal Black Phosphorus Sale Price by Type (2018-2023) & (k US\$/kg)

Table 10. Global Single Crystal Black Phosphorus Sales by Application (2018-2023) & (kg)

Table 11. Global Single Crystal Black Phosphorus Sales Market Share by Application (2018-2023)

Table 12. Global Single Crystal Black Phosphorus Revenue by Application (2018-2023)

Table 13. Global Single Crystal Black Phosphorus Revenue Market Share by Application (2018-2023)

Table 14. Global Single Crystal Black Phosphorus Sale Price by Application (2018-2023) & (k US\$/kg)

Table 15. Global Single Crystal Black Phosphorus Sales by Company (2018-2023) & (kg)

Table 16. Global Single Crystal Black Phosphorus Sales Market Share by Company (2018-2023)

Table 17. Global Single Crystal Black Phosphorus Revenue by Company (2018-2023) (\$ Millions)

Table 18. Global Single Crystal Black Phosphorus Revenue Market Share by Company (2018-2023)

Table 19. Global Single Crystal Black Phosphorus Sale Price by Company (2018-2023) & (k US\$/kg)

Table 20. Key Manufacturers Single Crystal Black Phosphorus Producing Area

Distribution and Sales Area

Table 21. Players Single Crystal Black Phosphorus Products Offered

Table 22. Single Crystal Black Phosphorus Concentration Ratio (CR3, CR5 and CR10) & (2018-2023)

Table 23. New Products and Potential Entrants

Table 24. Mergers & Acquisitions, Expansion

Table 25. Global Single Crystal Black Phosphorus Sales by Geographic Region (2018-2023) & (kg)

Table 26. Global Single Crystal Black Phosphorus Sales Market Share Geographic Region (2018-2023)

Table 27. Global Single Crystal Black Phosphorus Revenue by Geographic Region (2018-2023) & (\$ millions)

Table 28. Global Single Crystal Black Phosphorus Revenue Market Share by Geographic Region (2018-2023)

Table 29. Global Single Crystal Black Phosphorus Sales by Country/Region (2018-2023) & (kg)

Table 30. Global Single Crystal Black Phosphorus Sales Market Share by Country/Region (2018-2023)

Table 31. Global Single Crystal Black Phosphorus Revenue by Country/Region (2018-2023) & (\$ millions)

Table 32. Global Single Crystal Black Phosphorus Revenue Market Share by Country/Region (2018-2023)

Table 33. Americas Single Crystal Black Phosphorus Sales by Country (2018-2023) & (kg)

Table 34. Americas Single Crystal Black Phosphorus Sales Market Share by Country (2018-2023)

Table 35. Americas Single Crystal Black Phosphorus Revenue by Country (2018-2023) & (\$ Millions)

Table 36. Americas Single Crystal Black Phosphorus Revenue Market Share by Country (2018-2023)

Table 37. Americas Single Crystal Black Phosphorus Sales by Type (2018-2023) & (kg)

Table 38. Americas Single Crystal Black Phosphorus Sales by Application (2018-2023) & (kg)

Table 39. APAC Single Crystal Black Phosphorus Sales by Region (2018-2023) & (kg)

Table 40. APAC Single Crystal Black Phosphorus Sales Market Share by Region (2018-2023)

Table 41. APAC Single Crystal Black Phosphorus Revenue by Region (2018-2023) & (\$ Millions)

Table 42. APAC Single Crystal Black Phosphorus Revenue Market Share by Region

(2018-2023)

Table 43. APAC Single Crystal Black Phosphorus Sales by Type (2018-2023) & (kg)

Table 44. APAC Single Crystal Black Phosphorus Sales by Application (2018-2023) & (kg)

Table 45. Europe Single Crystal Black Phosphorus Sales by Country (2018-2023) & (kg)

Table 46. Europe Single Crystal Black Phosphorus Sales Market Share by Country (2018-2023)

Table 47. Europe Single Crystal Black Phosphorus Revenue by Country (2018-2023) & (\$ Millions)

Table 48. Europe Single Crystal Black Phosphorus Revenue Market Share by Country (2018-2023)

Table 49. Europe Single Crystal Black Phosphorus Sales by Type (2018-2023) & (kg)

Table 50. Europe Single Crystal Black Phosphorus Sales by Application (2018-2023) & (kg)

Table 51. Middle East & Africa Single Crystal Black Phosphorus Sales by Country (2018-2023) & (kg)

Table 52. Middle East & Africa Single Crystal Black Phosphorus Sales Market Share by Country (2018-2023)

Table 53. Middle East & Africa Single Crystal Black Phosphorus Revenue by Country (2018-2023) & (\$ Millions)

Table 54. Middle East & Africa Single Crystal Black Phosphorus Revenue Market Share by Country (2018-2023)

Table 55. Middle East & Africa Single Crystal Black Phosphorus Sales by Type (2018-2023) & (kg)

Table 56. Middle East & Africa Single Crystal Black Phosphorus Sales by Application (2018-2023) & (kg)

Table 57. Key Market Drivers & Growth Opportunities of Single Crystal Black Phosphorus

Table 58. Key Market Challenges & Risks of Single Crystal Black Phosphorus

Table 59. Key Industry Trends of Single Crystal Black Phosphorus

Table 60. Single Crystal Black Phosphorus Raw Material

Table 61. Key Suppliers of Raw Materials

Table 62. Single Crystal Black Phosphorus Distributors List

Table 63. Single Crystal Black Phosphorus Customer List

Table 64. Global Single Crystal Black Phosphorus Sales Forecast by Region (2024-2029) & (kg)

Table 65. Global Single Crystal Black Phosphorus Revenue Forecast by Region (2024-2029) & (\$ millions)

Table 66. Americas Single Crystal Black Phosphorus Sales Forecast by Country (2024-2029) & (kg)

Table 67. Americas Single Crystal Black Phosphorus Revenue Forecast by Country (2024-2029) & (\$ millions)

Table 68. APAC Single Crystal Black Phosphorus Sales Forecast by Region (2024-2029) & (kg)

Table 69. APAC Single Crystal Black Phosphorus Revenue Forecast by Region (2024-2029) & (\$ millions)

Table 70. Europe Single Crystal Black Phosphorus Sales Forecast by Country (2024-2029) & (kg)

Table 71. Europe Single Crystal Black Phosphorus Revenue Forecast by Country (2024-2029) & (\$ millions)

Table 72. Middle East & Africa Single Crystal Black Phosphorus Sales Forecast by Country (2024-2029) & (kg)

Table 73. Middle East & Africa Single Crystal Black Phosphorus Revenue Forecast by Country (2024-2029) & (\$ millions)

Table 74. Global Single Crystal Black Phosphorus Sales Forecast by Type (2024-2029) & (kg)

Table 75. Global Single Crystal Black Phosphorus Revenue Forecast by Type (2024-2029) & (\$ Millions)

Table 76. Global Single Crystal Black Phosphorus Sales Forecast by Application (2024-2029) & (kg)

Table 77. Global Single Crystal Black Phosphorus Revenue Forecast by Application (2024-2029) & (\$ Millions)

Table 78. ACS Material Basic Information, Single Crystal Black Phosphorus Manufacturing Base, Sales Area and Its Competitors

Table 79. ACS Material Single Crystal Black Phosphorus Product Portfolios and Specifications

Table 80. ACS Material Single Crystal Black Phosphorus Sales (kg), Revenue (\$ Million), Price (k US\$/kg) and Gross Margin (2018-2023)

Table 81. ACS Material Main Business

Table 82. ACS Material Latest Developments

Table 83. 2D Semiconductors Basic Information, Single Crystal Black Phosphorus Manufacturing Base, Sales Area and Its Competitors

Table 84. 2D Semiconductors Single Crystal Black Phosphorus Product Portfolios and Specifications

Table 85. 2D Semiconductors Single Crystal Black Phosphorus Sales (kg), Revenue (\$ Million), Price (k US\$/kg) and Gross Margin (2018-2023)

Table 86. 2D Semiconductors Main Business

- Table 87. 2D Semiconductors Latest Developments
- Table 88. Mophos Basic Information, Single Crystal Black Phosphorus Manufacturing Base, Sales Area and Its Competitors
- Table 89. Mophos Single Crystal Black Phosphorus Product Portfolios and Specifications
- Table 90. Mophos Single Crystal Black Phosphorus Sales (kg), Revenue (\$ Million), Price (k US\$/kg) and Gross Margin (2018-2023)
- Table 91. Mophos Main Business
- Table 92. Mophos Latest Developments
- Table 93. 6Carbon Technology Basic Information, Single Crystal Black Phosphorus Manufacturing Base, Sales Area and Its Competitors
- Table 94. 6Carbon Technology Single Crystal Black Phosphorus Product Portfolios and Specifications
- Table 95. 6Carbon Technology Single Crystal Black Phosphorus Sales (kg), Revenue (\$ Million), Price (k US\$/kg) and Gross Margin (2018-2023)
- Table 96. 6Carbon Technology Main Business
- Table 97. 6Carbon Technology Latest Developments
- Table 98. American Elements Basic Information, Single Crystal Black Phosphorus Manufacturing Base, Sales Area and Its Competitors
- Table 99. American Elements Single Crystal Black Phosphorus Product Portfolios and Specifications
- Table 100. American Elements Single Crystal Black Phosphorus Sales (kg), Revenue (\$ Million), Price (k US\$/kg) and Gross Margin (2018-2023)
- Table 101. American Elements Main Business
- Table 102. American Elements Latest Developments
- Table 103. HQ Graphene Basic Information, Single Crystal Black Phosphorus Manufacturing Base, Sales Area and Its Competitors
- Table 104. HQ Graphene Single Crystal Black Phosphorus Product Portfolios and Specifications
- Table 105. HQ Graphene Single Crystal Black Phosphorus Sales (kg), Revenue (\$ Million), Price (k US\$/kg) and Gross Margin (2018-2023)
- Table 106. HQ Graphene Main Business
- Table 107. HQ Graphene Latest Developments
- Table 108. Manchester Nanomaterials Basic Information, Single Crystal Black Phosphorus Manufacturing Base, Sales Area and Its Competitors
- Table 109. Manchester Nanomaterials Single Crystal Black Phosphorus Product Portfolios and Specifications
- Table 110. Manchester Nanomaterials Single Crystal Black Phosphorus Sales (kg), Revenue (\$ Million), Price (k US\$/kg) and Gross Margin (2018-2023)

- Table 111. Manchester Nanomaterials Main Business
- Table 112. Manchester Nanomaterials Latest Developments
- Table 113. WEISTRON Basic Information, Single Crystal Black Phosphorus Manufacturing Base, Sales Area and Its Competitors
- Table 114. WEISTRON Single Crystal Black Phosphorus Product Portfolios and Specifications
- Table 115. WEISTRON Single Crystal Black Phosphorus Sales (kg), Revenue (\$ Million), Price (k US\$/kg) and Gross Margin (2018-2023)
- Table 116. WEISTRON Main Business
- Table 117. WEISTRON Latest Developments
- Table 118. Smart-elements Basic Information, Single Crystal Black Phosphorus Manufacturing Base, Sales Area and Its Competitors
- Table 119. Smart-elements Single Crystal Black Phosphorus Product Portfolios and Specifications
- Table 120. Smart-elements Single Crystal Black Phosphorus Sales (kg), Revenue (\$ Million), Price (k US\$/kg) and Gross Margin (2018-2023)
- Table 121. Smart-elements Main Business
- Table 122. Smart-elements Latest Developments
- Table 123. Taizhou Sunano Energy Basic Information, Single Crystal Black Phosphorus Manufacturing Base, Sales Area and Its Competitors
- Table 124. Taizhou Sunano Energy Single Crystal Black Phosphorus Product Portfolios and Specifications
- Table 125. Taizhou Sunano Energy Single Crystal Black Phosphorus Sales (kg), Revenue (\$ Million), Price (k US\$/kg) and Gross Margin (2018-2023)
- Table 126. Taizhou Sunano Energy Main Business
- Table 127. Taizhou Sunano Energy Latest Developments

List Of Figures

LIST OF FIGURES

- Figure 1. Picture of Single Crystal Black Phosphorus
- Figure 2. Single Crystal Black Phosphorus Report Years Considered
- Figure 3. Research Objectives
- Figure 4. Research Methodology
- Figure 5. Research Process and Data Source
- Figure 6. Global Single Crystal Black Phosphorus Sales Growth Rate 2018-2029 (kg)
- Figure 7. Global Single Crystal Black Phosphorus Revenue Growth Rate 2018-2029 (\$ Millions)
- Figure 8. Single Crystal Black Phosphorus Sales by Region (2018, 2022 & 2029) & (\$ Millions)
- Figure 9. Product Picture of 4N
- Figure 10. Product Picture of 5N
- Figure 11. Global Single Crystal Black Phosphorus Sales Market Share by Type in 2022
- Figure 12. Global Single Crystal Black Phosphorus Revenue Market Share by Type (2018-2023)
- Figure 13. Single Crystal Black Phosphorus Consumed in Energy Catalysis
- Figure 14. Global Single Crystal Black Phosphorus Market: Energy Catalysis (2018-2023) & (kg)
- Figure 15. Single Crystal Black Phosphorus Consumed in Detection Sensor
- Figure 16. Global Single Crystal Black Phosphorus Market: Detection Sensor (2018-2023) & (kg)
- Figure 17. Single Crystal Black Phosphorus Consumed in Biomedical
- Figure 18. Global Single Crystal Black Phosphorus Market: Biomedical (2018-2023) & (kg)
- Figure 19. Single Crystal Black Phosphorus Consumed in Composite Material
- Figure 20. Global Single Crystal Black Phosphorus Market: Composite Material (2018-2023) & (kg)
- Figure 21. Global Single Crystal Black Phosphorus Sales Market Share by Application (2022)
- Figure 22. Global Single Crystal Black Phosphorus Revenue Market Share by Application in 2022
- Figure 23. Single Crystal Black Phosphorus Sales Market by Company in 2022 (kg)
- Figure 24. Global Single Crystal Black Phosphorus Sales Market Share by Company in 2022
- Figure 25. Single Crystal Black Phosphorus Revenue Market by Company in 2022 (\$

Million)

Figure 26. Global Single Crystal Black Phosphorus Revenue Market Share by Company in 2022

Figure 27. Global Single Crystal Black Phosphorus Sales Market Share by Geographic Region (2018-2023)

Figure 28. Global Single Crystal Black Phosphorus Revenue Market Share by Geographic Region in 2022

Figure 29. Americas Single Crystal Black Phosphorus Sales 2018-2023 (kg)

Figure 30. Americas Single Crystal Black Phosphorus Revenue 2018-2023 (\$ Millions)

Figure 31. APAC Single Crystal Black Phosphorus Sales 2018-2023 (kg)

Figure 32. APAC Single Crystal Black Phosphorus Revenue 2018-2023 (\$ Millions)

Figure 33. Europe Single Crystal Black Phosphorus Sales 2018-2023 (kg)

Figure 34. Europe Single Crystal Black Phosphorus Revenue 2018-2023 (\$ Millions)

Figure 35. Middle East & Africa Single Crystal Black Phosphorus Sales 2018-2023 (kg)

Figure 36. Middle East & Africa Single Crystal Black Phosphorus Revenue 2018-2023 (\$ Millions)

Figure 37. Americas Single Crystal Black Phosphorus Sales Market Share by Country in 2022

Figure 38. Americas Single Crystal Black Phosphorus Revenue Market Share by Country in 2022

Figure 39. Americas Single Crystal Black Phosphorus Sales Market Share by Type (2018-2023)

Figure 40. Americas Single Crystal Black Phosphorus Sales Market Share by Application (2018-2023)

Figure 41. United States Single Crystal Black Phosphorus Revenue Growth 2018-2023 (\$ Millions)

Figure 42. Canada Single Crystal Black Phosphorus Revenue Growth 2018-2023 (\$ Millions)

Figure 43. Mexico Single Crystal Black Phosphorus Revenue Growth 2018-2023 (\$ Millions)

Figure 44. Brazil Single Crystal Black Phosphorus Revenue Growth 2018-2023 (\$ Millions)

Figure 45. APAC Single Crystal Black Phosphorus Sales Market Share by Region in 2022

Figure 46. APAC Single Crystal Black Phosphorus Revenue Market Share by Regions in 2022

Figure 47. APAC Single Crystal Black Phosphorus Sales Market Share by Type (2018-2023)

Figure 48. APAC Single Crystal Black Phosphorus Sales Market Share by Application

(2018-2023)

Figure 49. China Single Crystal Black Phosphorus Revenue Growth 2018-2023 (\$ Millions)

Figure 50. Japan Single Crystal Black Phosphorus Revenue Growth 2018-2023 (\$ Millions)

Figure 51. South Korea Single Crystal Black Phosphorus Revenue Growth 2018-2023 (\$ Millions)

Figure 52. Southeast Asia Single Crystal Black Phosphorus Revenue Growth 2018-2023 (\$ Millions)

Figure 53. India Single Crystal Black Phosphorus Revenue Growth 2018-2023 (\$ Millions)

Figure 54. Australia Single Crystal Black Phosphorus Revenue Growth 2018-2023 (\$ Millions)

Figure 55. China Taiwan Single Crystal Black Phosphorus Revenue Growth 2018-2023 (\$ Millions)

Figure 56. Europe Single Crystal Black Phosphorus Sales Market Share by Country in 2022

Figure 57. Europe Single Crystal Black Phosphorus Revenue Market Share by Country in 2022

Figure 58. Europe Single Crystal Black Phosphorus Sales Market Share by Type (2018-2023)

Figure 59. Europe Single Crystal Black Phosphorus Sales Market Share by Application (2018-2023)

Figure 60. Germany Single Crystal Black Phosphorus Revenue Growth 2018-2023 (\$ Millions)

Figure 61. France Single Crystal Black Phosphorus Revenue Growth 2018-2023 (\$ Millions)

Figure 62. UK Single Crystal Black Phosphorus Revenue Growth 2018-2023 (\$ Millions)

Figure 63. Italy Single Crystal Black Phosphorus Revenue Growth 2018-2023 (\$ Millions)

Figure 64. Russia Single Crystal Black Phosphorus Revenue Growth 2018-2023 (\$ Millions)

Figure 65. Middle East & Africa Single Crystal Black Phosphorus Sales Market Share by Country in 2022

Figure 66. Middle East & Africa Single Crystal Black Phosphorus Revenue Market Share by Country in 2022

Figure 67. Middle East & Africa Single Crystal Black Phosphorus Sales Market Share by Type (2018-2023)

Figure 68. Middle East & Africa Single Crystal Black Phosphorus Sales Market Share by

Application (2018-2023)

Figure 69. Egypt Single Crystal Black Phosphorus Revenue Growth 2018-2023 (\$ Millions)

Figure 70. South Africa Single Crystal Black Phosphorus Revenue Growth 2018-2023 (\$ Millions)

Figure 71. Israel Single Crystal Black Phosphorus Revenue Growth 2018-2023 (\$ Millions)

Figure 72. Turkey Single Crystal Black Phosphorus Revenue Growth 2018-2023 (\$ Millions)

Figure 73. GCC Country Single Crystal Black Phosphorus Revenue Growth 2018-2023 (\$ Millions)

Figure 74. Manufacturing Cost Structure Analysis of Single Crystal Black Phosphorus in 2022

Figure 75. Manufacturing Process Analysis of Single Crystal Black Phosphorus

Figure 76. Industry Chain Structure of Single Crystal Black Phosphorus

Figure 77. Channels of Distribution

Figure 78. Global Single Crystal Black Phosphorus Sales Market Forecast by Region (2024-2029)

Figure 79. Global Single Crystal Black Phosphorus Revenue Market Share Forecast by Region (2024-2029)

Figure 80. Global Single Crystal Black Phosphorus Sales Market Share Forecast by Type (2024-2029)

Figure 81. Global Single Crystal Black Phosphorus Revenue Market Share Forecast by Type (2024-2029)

Figure 82. Global Single Crystal Black Phosphorus Sales Market Share Forecast by Application (2024-2029)

Figure 83. Global Single Crystal Black Phosphorus Revenue Market Share Forecast by Application (2024-2029)

I would like to order

Product name: Global Single Crystal Black Phosphorus Market Growth 2023-2029

Product link: <https://marketpublishers.com/r/GDC65F51AFB7EN.html>

Price: US\$ 3,660.00 (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/GDC65F51AFB7EN.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