

Global Liquid Crystal Phase Retarder Market Growth 2023-2029

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Abstracts

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The global Liquid Crystal Phase Retarder market size is projected to grow from US\$ million in 2022 to US\$ million in 2029; it is expected to grow at a CAGR of % from 2023 to 2029.

United States market for Liquid Crystal Phase Retarder is estimated to increase from US\$ million in 2022 to US\$ million by 2029, at a CAGR of % from 2023 through 2029.

China market for Liquid Crystal Phase Retarder is estimated to increase from US\$ million in 2022 to US\$ million by 2029, at a CAGR of % from 2023 through 2029.

Europe market for Liquid Crystal Phase Retarder is estimated to increase from US\$ million in 2022 to US\$ million by 2029, at a CAGR of % from 2023 through 2029.

Global key Liquid Crystal Phase Retarder players cover Merck KGaA, Samsung Electronics Co., Ltd., LG Display Co., Ltd., BOE Technology Group Co., Ltd., Tianma Microelectronics Co., Ltd., Japan Display Inc., Innolux Corporation, AU Optronics Corporation and Sharp Corporation, etc. In terms of revenue, the global two largest companies occupied for a share nearly % in 2022.

A liquid crystal phase retarder is a device that uses the optical properties of liquid crystal materials to control the phase retardation of light. Liquid crystal is a kind of liquid with orderly arrangement of molecules, and has electro-optic effect, that is, the propagation speed of light and the polarization state of light can be changed under the action of electric field. A liquid crystal phase retarder usually consists of a liquid crystal

layer, a glass substrate, electrodes and a control circuit. The liquid crystal layer is sandwiched between two parallel glass substrates, each coated with electrodes. When an electric field is applied to the liquid crystal layer, the liquid crystal molecules rearrange, thereby changing the phase difference when light passes through the liquid crystal layer. By adjusting the electric field strength or voltage applied to the liquid crystal phase retarder, the phase retardation of light can be precisely controlled. The phase retarder can adjust the phase delay of the light in a continuously adjustable range as required. This makes liquid crystal phase retarders widely used in the fields of optical modulation, optical interference, polarization control, and optical imaging. The working principle of liquid crystal phase retarder is based on the orientation adjustment of liquid crystal molecules and the change of molecular arrangement under the action of electric field. By rationally designing the arrangement structure of liquid crystal molecules and the applied electric field, high-precision control of the phase delay of light can be achieved, thereby realizing phase modulation and control of light.

LPI (LP Information)' newest research report, the “Liquid Crystal Phase Retarder Industry Forecast” looks at past sales and reviews total world Liquid Crystal Phase Retarder sales in 2022, providing a comprehensive analysis by region and market sector of projected Liquid Crystal Phase Retarder sales for 2023 through 2029. With Liquid Crystal Phase Retarder sales broken down by region, market sector and sub-sector, this report provides a detailed analysis in US\$ millions of the world Liquid Crystal Phase Retarder industry.

This Insight Report provides a comprehensive analysis of the global Liquid Crystal Phase Retarder landscape and highlights key trends related to product segmentation, company formation, revenue, and market share, latest development, and M&A activity. This report also analyzes the strategies of leading global companies with a focus on Liquid Crystal Phase Retarder portfolios and capabilities, market entry strategies, market positions, and geographic footprints, to better understand these firms' unique position in an accelerating global Liquid Crystal Phase Retarder market.

This Insight Report evaluates the key market trends, drivers, and affecting factors shaping the global outlook for Liquid Crystal Phase Retarder and breaks down the forecast by type, by application, geography, and market size to highlight emerging pockets of opportunity. With a transparent methodology based on hundreds of bottom-up qualitative and quantitative market inputs, this study forecast offers a highly nuanced view of the current state and future trajectory in the global Liquid Crystal Phase Retarder.

This report presents a comprehensive overview, market shares, and growth opportunities of Liquid Crystal Phase Retarder market by product type, application, key manufacturers and key regions and countries.

Market Segmentation:

Segmentation by type

Single Channel Liquid Crystal Phase Retarder

Multi-channel Liquid Crystal Phase Retarder

Segmentation by application

Optical Communication

Optical Imaging

Optical Interference

Optical Sensor

Optical Modulation

Others

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.

Merck KGaA

Samsung Electronics Co., Ltd.

LG Display Co., Ltd.

BOE Technology Group Co., Ltd.

Tianma Microelectronics Co., Ltd.

Japan Display Inc.

Innolux Corporation

AU Optronics Corporation

Sharp Corporation

HannStar Display Corporation

Truly International Holdings Ltd.

Chunghwa Picture Tubes, Ltd.

Nanjing CEC Panda LCD Technology Co., Ltd.

Shenzhen China Star Optoelectronics Technology Co., Ltd.

Key Questions Addressed in this Report

What is the 10-year outlook for the global Liquid Crystal Phase Retarder market?

What factors are driving Liquid Crystal Phase Retarder market growth, globally and by region?

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

How do Liquid Crystal Phase Retarder market opportunities vary by end market size?

How does Liquid Crystal Phase Retarder 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 Liquid Crystal Phase Retarder Annual Sales 2018-2029
 - 2.1.2 World Current & Future Analysis for Liquid Crystal Phase Retarder by Geographic Region, 2018, 2022 & 2029
 - 2.1.3 World Current & Future Analysis for Liquid Crystal Phase Retarder by Country/Region, 2018, 2022 & 2029
- 2.2 Liquid Crystal Phase Retarder Segment by Type
 - 2.2.1 Single Channel Liquid Crystal Phase Retarder
 - 2.2.2 Multi-channel Liquid Crystal Phase Retarder
- 2.3 Liquid Crystal Phase Retarder Sales by Type
 - 2.3.1 Global Liquid Crystal Phase Retarder Sales Market Share by Type (2018-2023)
 - 2.3.2 Global Liquid Crystal Phase Retarder Revenue and Market Share by Type (2018-2023)
 - 2.3.3 Global Liquid Crystal Phase Retarder Sale Price by Type (2018-2023)
- 2.4 Liquid Crystal Phase Retarder Segment by Application
 - 2.4.1 Optical Communication
 - 2.4.2 Optical Imaging
 - 2.4.3 Optical Interference
 - 2.4.4 Optical Sensor
 - 2.4.5 Optical Modulation
 - 2.4.6 Others
- 2.5 Liquid Crystal Phase Retarder Sales by Application
 - 2.5.1 Global Liquid Crystal Phase Retarder Sale Market Share by Application (2018-2023)

2.5.2 Global Liquid Crystal Phase Retarder Revenue and Market Share by Application (2018-2023)

2.5.3 Global Liquid Crystal Phase Retarder Sale Price by Application (2018-2023)

3 GLOBAL LIQUID CRYSTAL PHASE RETARDER BY COMPANY

3.1 Global Liquid Crystal Phase Retarder Breakdown Data by Company

3.1.1 Global Liquid Crystal Phase Retarder Annual Sales by Company (2018-2023)

3.1.2 Global Liquid Crystal Phase Retarder Sales Market Share by Company (2018-2023)

3.2 Global Liquid Crystal Phase Retarder Annual Revenue by Company (2018-2023)

3.2.1 Global Liquid Crystal Phase Retarder Revenue by Company (2018-2023)

3.2.2 Global Liquid Crystal Phase Retarder Revenue Market Share by Company (2018-2023)

3.3 Global Liquid Crystal Phase Retarder Sale Price by Company

3.4 Key Manufacturers Liquid Crystal Phase Retarder Producing Area Distribution, Sales Area, Product Type

3.4.1 Key Manufacturers Liquid Crystal Phase Retarder Product Location Distribution

3.4.2 Players Liquid Crystal Phase Retarder 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 LIQUID CRYSTAL PHASE RETARDER BY GEOGRAPHIC REGION

4.1 World Historic Liquid Crystal Phase Retarder Market Size by Geographic Region (2018-2023)

4.1.1 Global Liquid Crystal Phase Retarder Annual Sales by Geographic Region (2018-2023)

4.1.2 Global Liquid Crystal Phase Retarder Annual Revenue by Geographic Region (2018-2023)

4.2 World Historic Liquid Crystal Phase Retarder Market Size by Country/Region (2018-2023)

4.2.1 Global Liquid Crystal Phase Retarder Annual Sales by Country/Region (2018-2023)

4.2.2 Global Liquid Crystal Phase Retarder Annual Revenue by Country/Region

(2018-2023)

4.3 Americas Liquid Crystal Phase Retarder Sales Growth

4.4 APAC Liquid Crystal Phase Retarder Sales Growth

4.5 Europe Liquid Crystal Phase Retarder Sales Growth

4.6 Middle East & Africa Liquid Crystal Phase Retarder Sales Growth

5 AMERICAS

5.1 Americas Liquid Crystal Phase Retarder Sales by Country

5.1.1 Americas Liquid Crystal Phase Retarder Sales by Country (2018-2023)

5.1.2 Americas Liquid Crystal Phase Retarder Revenue by Country (2018-2023)

5.2 Americas Liquid Crystal Phase Retarder Sales by Type

5.3 Americas Liquid Crystal Phase Retarder Sales by Application

5.4 United States

5.5 Canada

5.6 Mexico

5.7 Brazil

6 APAC

6.1 APAC Liquid Crystal Phase Retarder Sales by Region

6.1.1 APAC Liquid Crystal Phase Retarder Sales by Region (2018-2023)

6.1.2 APAC Liquid Crystal Phase Retarder Revenue by Region (2018-2023)

6.2 APAC Liquid Crystal Phase Retarder Sales by Type

6.3 APAC Liquid Crystal Phase Retarder 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 Liquid Crystal Phase Retarder by Country

7.1.1 Europe Liquid Crystal Phase Retarder Sales by Country (2018-2023)

7.1.2 Europe Liquid Crystal Phase Retarder Revenue by Country (2018-2023)

7.2 Europe Liquid Crystal Phase Retarder Sales by Type

7.3 Europe Liquid Crystal Phase Retarder 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 Liquid Crystal Phase Retarder by Country

8.1.1 Middle East & Africa Liquid Crystal Phase Retarder Sales by Country (2018-2023)

8.1.2 Middle East & Africa Liquid Crystal Phase Retarder Revenue by Country (2018-2023)

8.2 Middle East & Africa Liquid Crystal Phase Retarder Sales by Type

8.3 Middle East & Africa Liquid Crystal Phase Retarder 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 Liquid Crystal Phase Retarder

10.3 Manufacturing Process Analysis of Liquid Crystal Phase Retarder

10.4 Industry Chain Structure of Liquid Crystal Phase Retarder

11 MARKETING, DISTRIBUTORS AND CUSTOMER

11.1 Sales Channel

11.1.1 Direct Channels

- 11.1.2 Indirect Channels
- 11.2 Liquid Crystal Phase Retarder Distributors
- 11.3 Liquid Crystal Phase Retarder Customer

12 WORLD FORECAST REVIEW FOR LIQUID CRYSTAL PHASE RETARDER BY GEOGRAPHIC REGION

- 12.1 Global Liquid Crystal Phase Retarder Market Size Forecast by Region
 - 12.1.1 Global Liquid Crystal Phase Retarder Forecast by Region (2024-2029)
 - 12.1.2 Global Liquid Crystal Phase Retarder 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 Liquid Crystal Phase Retarder Forecast by Type
- 12.7 Global Liquid Crystal Phase Retarder Forecast by Application

13 KEY PLAYERS ANALYSIS

- 13.1 Merck KGaA
 - 13.1.1 Merck KGaA Company Information
 - 13.1.2 Merck KGaA Liquid Crystal Phase Retarder Product Portfolios and Specifications
 - 13.1.3 Merck KGaA Liquid Crystal Phase Retarder Sales, Revenue, Price and Gross Margin (2018-2023)
 - 13.1.4 Merck KGaA Main Business Overview
 - 13.1.5 Merck KGaA Latest Developments
- 13.2 Samsung Electronics Co., Ltd.
 - 13.2.1 Samsung Electronics Co., Ltd. Company Information
 - 13.2.2 Samsung Electronics Co., Ltd. Liquid Crystal Phase Retarder Product Portfolios and Specifications
 - 13.2.3 Samsung Electronics Co., Ltd. Liquid Crystal Phase Retarder Sales, Revenue, Price and Gross Margin (2018-2023)
 - 13.2.4 Samsung Electronics Co., Ltd. Main Business Overview
 - 13.2.5 Samsung Electronics Co., Ltd. Latest Developments
- 13.3 LG Display Co., Ltd.
 - 13.3.1 LG Display Co., Ltd. Company Information
 - 13.3.2 LG Display Co., Ltd. Liquid Crystal Phase Retarder Product Portfolios and

Specifications

13.3.3 LG Display Co., Ltd. Liquid Crystal Phase Retarder Sales, Revenue, Price and Gross Margin (2018-2023)

13.3.4 LG Display Co., Ltd. Main Business Overview

13.3.5 LG Display Co., Ltd. Latest Developments

13.4 BOE Technology Group Co., Ltd.

13.4.1 BOE Technology Group Co., Ltd. Company Information

13.4.2 BOE Technology Group Co., Ltd. Liquid Crystal Phase Retarder Product

Portfolios and Specifications

13.4.3 BOE Technology Group Co., Ltd. Liquid Crystal Phase Retarder Sales, Revenue, Price and Gross Margin (2018-2023)

13.4.4 BOE Technology Group Co., Ltd. Main Business Overview

13.4.5 BOE Technology Group Co., Ltd. Latest Developments

13.5 Tianma Microelectronics Co., Ltd.

13.5.1 Tianma Microelectronics Co., Ltd. Company Information

13.5.2 Tianma Microelectronics Co., Ltd. Liquid Crystal Phase Retarder Product

Portfolios and Specifications

13.5.3 Tianma Microelectronics Co., Ltd. Liquid Crystal Phase Retarder Sales, Revenue, Price and Gross Margin (2018-2023)

13.5.4 Tianma Microelectronics Co., Ltd. Main Business Overview

13.5.5 Tianma Microelectronics Co., Ltd. Latest Developments

13.6 Japan Display Inc.

13.6.1 Japan Display Inc. Company Information

13.6.2 Japan Display Inc. Liquid Crystal Phase Retarder Product Portfolios and Specifications

13.6.3 Japan Display Inc. Liquid Crystal Phase Retarder Sales, Revenue, Price and Gross Margin (2018-2023)

13.6.4 Japan Display Inc. Main Business Overview

13.6.5 Japan Display Inc. Latest Developments

13.7 Innolux Corporation

13.7.1 Innolux Corporation Company Information

13.7.2 Innolux Corporation Liquid Crystal Phase Retarder Product Portfolios and Specifications

13.7.3 Innolux Corporation Liquid Crystal Phase Retarder Sales, Revenue, Price and Gross Margin (2018-2023)

13.7.4 Innolux Corporation Main Business Overview

13.7.5 Innolux Corporation Latest Developments

13.8 AU Optronics Corporation

13.8.1 AU Optronics Corporation Company Information

13.8.2 AU Optronics Corporation Liquid Crystal Phase Retarder Product Portfolios and Specifications

13.8.3 AU Optronics Corporation Liquid Crystal Phase Retarder Sales, Revenue, Price and Gross Margin (2018-2023)

13.8.4 AU Optronics Corporation Main Business Overview

13.8.5 AU Optronics Corporation Latest Developments

13.9 Sharp Corporation

13.9.1 Sharp Corporation Company Information

13.9.2 Sharp Corporation Liquid Crystal Phase Retarder Product Portfolios and Specifications

13.9.3 Sharp Corporation Liquid Crystal Phase Retarder Sales, Revenue, Price and Gross Margin (2018-2023)

13.9.4 Sharp Corporation Main Business Overview

13.9.5 Sharp Corporation Latest Developments

13.10 HannStar Display Corporation

13.10.1 HannStar Display Corporation Company Information

13.10.2 HannStar Display Corporation Liquid Crystal Phase Retarder Product Portfolios and Specifications

13.10.3 HannStar Display Corporation Liquid Crystal Phase Retarder Sales, Revenue, Price and Gross Margin (2018-2023)

13.10.4 HannStar Display Corporation Main Business Overview

13.10.5 HannStar Display Corporation Latest Developments

13.11 Truly International Holdings Ltd.

13.11.1 Truly International Holdings Ltd. Company Information

13.11.2 Truly International Holdings Ltd. Liquid Crystal Phase Retarder Product Portfolios and Specifications

13.11.3 Truly International Holdings Ltd. Liquid Crystal Phase Retarder Sales, Revenue, Price and Gross Margin (2018-2023)

13.11.4 Truly International Holdings Ltd. Main Business Overview

13.11.5 Truly International Holdings Ltd. Latest Developments

13.12 Chunghwa Picture Tubes, Ltd.

13.12.1 Chunghwa Picture Tubes, Ltd. Company Information

13.12.2 Chunghwa Picture Tubes, Ltd. Liquid Crystal Phase Retarder Product Portfolios and Specifications

13.12.3 Chunghwa Picture Tubes, Ltd. Liquid Crystal Phase Retarder Sales, Revenue, Price and Gross Margin (2018-2023)

13.12.4 Chunghwa Picture Tubes, Ltd. Main Business Overview

13.12.5 Chunghwa Picture Tubes, Ltd. Latest Developments

13.13 Nanjing CEC Panda LCD Technology Co., Ltd.

- 13.13.1 Nanjing CEC Panda LCD Technology Co., Ltd. Company Information
- 13.13.2 Nanjing CEC Panda LCD Technology Co., Ltd. Liquid Crystal Phase Retarder Product Portfolios and Specifications
- 13.13.3 Nanjing CEC Panda LCD Technology Co., Ltd. Liquid Crystal Phase Retarder Sales, Revenue, Price and Gross Margin (2018-2023)
- 13.13.4 Nanjing CEC Panda LCD Technology Co., Ltd. Main Business Overview
- 13.13.5 Nanjing CEC Panda LCD Technology Co., Ltd. Latest Developments
- 13.14 Shenzhen China Star Optoelectronics Technology Co., Ltd.
- 13.14.1 Shenzhen China Star Optoelectronics Technology Co., Ltd. Company Information
- 13.14.2 Shenzhen China Star Optoelectronics Technology Co., Ltd. Liquid Crystal Phase Retarder Product Portfolios and Specifications
- 13.14.3 Shenzhen China Star Optoelectronics Technology Co., Ltd. Liquid Crystal Phase Retarder Sales, Revenue, Price and Gross Margin (2018-2023)
- 13.14.4 Shenzhen China Star Optoelectronics Technology Co., Ltd. Main Business Overview
- 13.14.5 Shenzhen China Star Optoelectronics Technology Co., Ltd. Latest Developments

14 RESEARCH FINDINGS AND CONCLUSION

List Of Tables

LIST OF TABLES

Table 1. Liquid Crystal Phase Retarder Annual Sales CAGR by Geographic Region (2018, 2022 & 2029) & (\$ millions)

Table 2. Liquid Crystal Phase Retarder Annual Sales CAGR by Country/Region (2018, 2022 & 2029) & (\$ millions)

Table 3. Major Players of Single Channel Liquid Crystal Phase Retarder

Table 4. Major Players of Multi-channel Liquid Crystal Phase Retarder

Table 5. Global Liquid Crystal Phase Retarder Sales by Type (2018-2023) & (Units)

Table 6. Global Liquid Crystal Phase Retarder Sales Market Share by Type (2018-2023)

Table 7. Global Liquid Crystal Phase Retarder Revenue by Type (2018-2023) & (\$ million)

Table 8. Global Liquid Crystal Phase Retarder Revenue Market Share by Type (2018-2023)

Table 9. Global Liquid Crystal Phase Retarder Sale Price by Type (2018-2023) & (US\$/Unit)

Table 10. Global Liquid Crystal Phase Retarder Sales by Application (2018-2023) & (Units)

Table 11. Global Liquid Crystal Phase Retarder Sales Market Share by Application (2018-2023)

Table 12. Global Liquid Crystal Phase Retarder Revenue by Application (2018-2023)

Table 13. Global Liquid Crystal Phase Retarder Revenue Market Share by Application (2018-2023)

Table 14. Global Liquid Crystal Phase Retarder Sale Price by Application (2018-2023) & (US\$/Unit)

Table 15. Global Liquid Crystal Phase Retarder Sales by Company (2018-2023) & (Units)

Table 16. Global Liquid Crystal Phase Retarder Sales Market Share by Company (2018-2023)

Table 17. Global Liquid Crystal Phase Retarder Revenue by Company (2018-2023) (\$ Millions)

Table 18. Global Liquid Crystal Phase Retarder Revenue Market Share by Company (2018-2023)

Table 19. Global Liquid Crystal Phase Retarder Sale Price by Company (2018-2023) & (US\$/Unit)

Table 20. Key Manufacturers Liquid Crystal Phase Retarder Producing Area Distribution

and Sales Area

Table 21. Players Liquid Crystal Phase Retarder Products Offered

Table 22. Liquid Crystal Phase Retarder Concentration Ratio (CR3, CR5 and CR10) & (2018-2023)

Table 23. New Products and Potential Entrants

Table 24. Mergers & Acquisitions, Expansion

Table 25. Global Liquid Crystal Phase Retarder Sales by Geographic Region (2018-2023) & (Units)

Table 26. Global Liquid Crystal Phase Retarder Sales Market Share Geographic Region (2018-2023)

Table 27. Global Liquid Crystal Phase Retarder Revenue by Geographic Region (2018-2023) & (\$ millions)

Table 28. Global Liquid Crystal Phase Retarder Revenue Market Share by Geographic Region (2018-2023)

Table 29. Global Liquid Crystal Phase Retarder Sales by Country/Region (2018-2023) & (Units)

Table 30. Global Liquid Crystal Phase Retarder Sales Market Share by Country/Region (2018-2023)

Table 31. Global Liquid Crystal Phase Retarder Revenue by Country/Region (2018-2023) & (\$ millions)

Table 32. Global Liquid Crystal Phase Retarder Revenue Market Share by Country/Region (2018-2023)

Table 33. Americas Liquid Crystal Phase Retarder Sales by Country (2018-2023) & (Units)

Table 34. Americas Liquid Crystal Phase Retarder Sales Market Share by Country (2018-2023)

Table 35. Americas Liquid Crystal Phase Retarder Revenue by Country (2018-2023) & (\$ Millions)

Table 36. Americas Liquid Crystal Phase Retarder Revenue Market Share by Country (2018-2023)

Table 37. Americas Liquid Crystal Phase Retarder Sales by Type (2018-2023) & (Units)

Table 38. Americas Liquid Crystal Phase Retarder Sales by Application (2018-2023) & (Units)

Table 39. APAC Liquid Crystal Phase Retarder Sales by Region (2018-2023) & (Units)

Table 40. APAC Liquid Crystal Phase Retarder Sales Market Share by Region (2018-2023)

Table 41. APAC Liquid Crystal Phase Retarder Revenue by Region (2018-2023) & (\$ Millions)

Table 42. APAC Liquid Crystal Phase Retarder Revenue Market Share by Region

(2018-2023)

Table 43. APAC Liquid Crystal Phase Retarder Sales by Type (2018-2023) & (Units)

Table 44. APAC Liquid Crystal Phase Retarder Sales by Application (2018-2023) & (Units)

Table 45. Europe Liquid Crystal Phase Retarder Sales by Country (2018-2023) & (Units)

Table 46. Europe Liquid Crystal Phase Retarder Sales Market Share by Country (2018-2023)

Table 47. Europe Liquid Crystal Phase Retarder Revenue by Country (2018-2023) & (\$ Millions)

Table 48. Europe Liquid Crystal Phase Retarder Revenue Market Share by Country (2018-2023)

Table 49. Europe Liquid Crystal Phase Retarder Sales by Type (2018-2023) & (Units)

Table 50. Europe Liquid Crystal Phase Retarder Sales by Application (2018-2023) & (Units)

Table 51. Middle East & Africa Liquid Crystal Phase Retarder Sales by Country (2018-2023) & (Units)

Table 52. Middle East & Africa Liquid Crystal Phase Retarder Sales Market Share by Country (2018-2023)

Table 53. Middle East & Africa Liquid Crystal Phase Retarder Revenue by Country (2018-2023) & (\$ Millions)

Table 54. Middle East & Africa Liquid Crystal Phase Retarder Revenue Market Share by Country (2018-2023)

Table 55. Middle East & Africa Liquid Crystal Phase Retarder Sales by Type (2018-2023) & (Units)

Table 56. Middle East & Africa Liquid Crystal Phase Retarder Sales by Application (2018-2023) & (Units)

Table 57. Key Market Drivers & Growth Opportunities of Liquid Crystal Phase Retarder

Table 58. Key Market Challenges & Risks of Liquid Crystal Phase Retarder

Table 59. Key Industry Trends of Liquid Crystal Phase Retarder

Table 60. Liquid Crystal Phase Retarder Raw Material

Table 61. Key Suppliers of Raw Materials

Table 62. Liquid Crystal Phase Retarder Distributors List

Table 63. Liquid Crystal Phase Retarder Customer List

Table 64. Global Liquid Crystal Phase Retarder Sales Forecast by Region (2024-2029) & (Units)

Table 65. Global Liquid Crystal Phase Retarder Revenue Forecast by Region (2024-2029) & (\$ millions)

Table 66. Americas Liquid Crystal Phase Retarder Sales Forecast by Country

(2024-2029) & (Units)

Table 67. Americas Liquid Crystal Phase Retarder Revenue Forecast by Country (2024-2029) & (\$ millions)

Table 68. APAC Liquid Crystal Phase Retarder Sales Forecast by Region (2024-2029) & (Units)

Table 69. APAC Liquid Crystal Phase Retarder Revenue Forecast by Region (2024-2029) & (\$ millions)

Table 70. Europe Liquid Crystal Phase Retarder Sales Forecast by Country (2024-2029) & (Units)

Table 71. Europe Liquid Crystal Phase Retarder Revenue Forecast by Country (2024-2029) & (\$ millions)

Table 72. Middle East & Africa Liquid Crystal Phase Retarder Sales Forecast by Country (2024-2029) & (Units)

Table 73. Middle East & Africa Liquid Crystal Phase Retarder Revenue Forecast by Country (2024-2029) & (\$ millions)

Table 74. Global Liquid Crystal Phase Retarder Sales Forecast by Type (2024-2029) & (Units)

Table 75. Global Liquid Crystal Phase Retarder Revenue Forecast by Type (2024-2029) & (\$ Millions)

Table 76. Global Liquid Crystal Phase Retarder Sales Forecast by Application (2024-2029) & (Units)

Table 77. Global Liquid Crystal Phase Retarder Revenue Forecast by Application (2024-2029) & (\$ Millions)

Table 78. Merck KGaA Basic Information, Liquid Crystal Phase Retarder Manufacturing Base, Sales Area and Its Competitors

Table 79. Merck KGaA Liquid Crystal Phase Retarder Product Portfolios and Specifications

Table 80. Merck KGaA Liquid Crystal Phase Retarder Sales (Units), Revenue (\$ Million), Price (US\$/Unit) and Gross Margin (2018-2023)

Table 81. Merck KGaA Main Business

Table 82. Merck KGaA Latest Developments

Table 83. Samsung Electronics Co., Ltd. Basic Information, Liquid Crystal Phase Retarder Manufacturing Base, Sales Area and Its Competitors

Table 84. Samsung Electronics Co., Ltd. Liquid Crystal Phase Retarder Product Portfolios and Specifications

Table 85. Samsung Electronics Co., Ltd. Liquid Crystal Phase Retarder Sales (Units), Revenue (\$ Million), Price (US\$/Unit) and Gross Margin (2018-2023)

Table 86. Samsung Electronics Co., Ltd. Main Business

Table 87. Samsung Electronics Co., Ltd. Latest Developments

Table 88. LG Display Co., Ltd. Basic Information, Liquid Crystal Phase Retarder Manufacturing Base, Sales Area and Its Competitors

Table 89. LG Display Co., Ltd. Liquid Crystal Phase Retarder Product Portfolios and Specifications

Table 90. LG Display Co., Ltd. Liquid Crystal Phase Retarder Sales (Units), Revenue (\$ Million), Price (US\$/Unit) and Gross Margin (2018-2023)

Table 91. LG Display Co., Ltd. Main Business

Table 92. LG Display Co., Ltd. Latest Developments

Table 93. BOE Technology Group Co., Ltd. Basic Information, Liquid Crystal Phase Retarder Manufacturing Base, Sales Area and Its Competitors

Table 94. BOE Technology Group Co., Ltd. Liquid Crystal Phase Retarder Product Portfolios and Specifications

Table 95. BOE Technology Group Co., Ltd. Liquid Crystal Phase Retarder Sales (Units), Revenue (\$ Million), Price (US\$/Unit) and Gross Margin (2018-2023)

Table 96. BOE Technology Group Co., Ltd. Main Business

Table 97. BOE Technology Group Co., Ltd. Latest Developments

Table 98. Tianma Microelectronics Co., Ltd. Basic Information, Liquid Crystal Phase Retarder Manufacturing Base, Sales Area and Its Competitors

Table 99. Tianma Microelectronics Co., Ltd. Liquid Crystal Phase Retarder Product Portfolios and Specifications

Table 100. Tianma Microelectronics Co., Ltd. Liquid Crystal Phase Retarder Sales (Units), Revenue (\$ Million), Price (US\$/Unit) and Gross Margin (2018-2023)

Table 101. Tianma Microelectronics Co., Ltd. Main Business

Table 102. Tianma Microelectronics Co., Ltd. Latest Developments

Table 103. Japan Display Inc. Basic Information, Liquid Crystal Phase Retarder Manufacturing Base, Sales Area and Its Competitors

Table 104. Japan Display Inc. Liquid Crystal Phase Retarder Product Portfolios and Specifications

Table 105. Japan Display Inc. Liquid Crystal Phase Retarder Sales (Units), Revenue (\$ Million), Price (US\$/Unit) and Gross Margin (2018-2023)

Table 106. Japan Display Inc. Main Business

Table 107. Japan Display Inc. Latest Developments

Table 108. Innolux Corporation Basic Information, Liquid Crystal Phase Retarder Manufacturing Base, Sales Area and Its Competitors

Table 109. Innolux Corporation Liquid Crystal Phase Retarder Product Portfolios and Specifications

Table 110. Innolux Corporation Liquid Crystal Phase Retarder Sales (Units), Revenue (\$ Million), Price (US\$/Unit) and Gross Margin (2018-2023)

Table 111. Innolux Corporation Main Business

- Table 112. Innolux Corporation Latest Developments
- Table 113. AU Optronics Corporation Basic Information, Liquid Crystal Phase Retarder Manufacturing Base, Sales Area and Its Competitors
- Table 114. AU Optronics Corporation Liquid Crystal Phase Retarder Product Portfolios and Specifications
- Table 115. AU Optronics Corporation Liquid Crystal Phase Retarder Sales (Units), Revenue (\$ Million), Price (US\$/Unit) and Gross Margin (2018-2023)
- Table 116. AU Optronics Corporation Main Business
- Table 117. AU Optronics Corporation Latest Developments
- Table 118. Sharp Corporation Basic Information, Liquid Crystal Phase Retarder Manufacturing Base, Sales Area and Its Competitors
- Table 119. Sharp Corporation Liquid Crystal Phase Retarder Product Portfolios and Specifications
- Table 120. Sharp Corporation Liquid Crystal Phase Retarder Sales (Units), Revenue (\$ Million), Price (US\$/Unit) and Gross Margin (2018-2023)
- Table 121. Sharp Corporation Main Business
- Table 122. Sharp Corporation Latest Developments
- Table 123. HannStar Display Corporation Basic Information, Liquid Crystal Phase Retarder Manufacturing Base, Sales Area and Its Competitors
- Table 124. HannStar Display Corporation Liquid Crystal Phase Retarder Product Portfolios and Specifications
- Table 125. HannStar Display Corporation Liquid Crystal Phase Retarder Sales (Units), Revenue (\$ Million), Price (US\$/Unit) and Gross Margin (2018-2023)
- Table 126. HannStar Display Corporation Main Business
- Table 127. HannStar Display Corporation Latest Developments
- Table 128. Truly International Holdings Ltd. Basic Information, Liquid Crystal Phase Retarder Manufacturing Base, Sales Area and Its Competitors
- Table 129. Truly International Holdings Ltd. Liquid Crystal Phase Retarder Product Portfolios and Specifications
- Table 130. Truly International Holdings Ltd. Liquid Crystal Phase Retarder Sales (Units), Revenue (\$ Million), Price (US\$/Unit) and Gross Margin (2018-2023)
- Table 131. Truly International Holdings Ltd. Main Business
- Table 132. Truly International Holdings Ltd. Latest Developments
- Table 133. Chunghwa Picture Tubes, Ltd. Basic Information, Liquid Crystal Phase Retarder Manufacturing Base, Sales Area and Its Competitors
- Table 134. Chunghwa Picture Tubes, Ltd. Liquid Crystal Phase Retarder Product Portfolios and Specifications
- Table 135. Chunghwa Picture Tubes, Ltd. Liquid Crystal Phase Retarder Sales (Units), Revenue (\$ Million), Price (US\$/Unit) and Gross Margin (2018-2023)

Table 136. Chunghwa Picture Tubes, Ltd. Main Business

Table 137. Chunghwa Picture Tubes, Ltd. Latest Developments

Table 138. Nanjing CEC Panda LCD Technology Co., Ltd. Basic Information, Liquid Crystal Phase Retarder Manufacturing Base, Sales Area and Its Competitors

Table 139. Nanjing CEC Panda LCD Technology Co., Ltd. Liquid Crystal Phase Retarder Product Portfolios and Specifications

Table 140. Nanjing CEC Panda LCD Technology Co., Ltd. Liquid Crystal Phase Retarder Sales (Units), Revenue (\$ Million), Price (US\$/Unit) and Gross Margin (2018-2023)

Table 141. Nanjing CEC Panda LCD Technology Co., Ltd. Main Business

Table 142. Nanjing CEC Panda LCD Technology Co., Ltd. Latest Developments

Table 143. Shenzhen China Star Optoelectronics Technology Co., Ltd. Basic Information, Liquid Crystal Phase Retarder Manufacturing Base, Sales Area and Its Competitors

Table 144. Shenzhen China Star Optoelectronics Technology Co., Ltd. Liquid Crystal Phase Retarder Product Portfolios and Specifications

Table 145. Shenzhen China Star Optoelectronics Technology Co., Ltd. Liquid Crystal Phase Retarder Sales (Units), Revenue (\$ Million), Price (US\$/Unit) and Gross Margin (2018-2023)

Table 146. Shenzhen China Star Optoelectronics Technology Co., Ltd. Main Business

Table 147. Shenzhen China Star Optoelectronics Technology Co., Ltd. Latest Developments

List Of Figures

LIST OF FIGURES

- Figure 1. Picture of Liquid Crystal Phase Retarder
- Figure 2. Liquid Crystal Phase Retarder Report Years Considered
- Figure 3. Research Objectives
- Figure 4. Research Methodology
- Figure 5. Research Process and Data Source
- Figure 6. Global Liquid Crystal Phase Retarder Sales Growth Rate 2018-2029 (Units)
- Figure 7. Global Liquid Crystal Phase Retarder Revenue Growth Rate 2018-2029 (\$ Millions)
- Figure 8. Liquid Crystal Phase Retarder Sales by Region (2018, 2022 & 2029) & (\$ Millions)
- Figure 9. Product Picture of Single Channel Liquid Crystal Phase Retarder
- Figure 10. Product Picture of Multi-channel Liquid Crystal Phase Retarder
- Figure 11. Global Liquid Crystal Phase Retarder Sales Market Share by Type in 2022
- Figure 12. Global Liquid Crystal Phase Retarder Revenue Market Share by Type (2018-2023)
- Figure 13. Liquid Crystal Phase Retarder Consumed in Optical Communication
- Figure 14. Global Liquid Crystal Phase Retarder Market: Optical Communication (2018-2023) & (Units)
- Figure 15. Liquid Crystal Phase Retarder Consumed in Optical Imaging
- Figure 16. Global Liquid Crystal Phase Retarder Market: Optical Imaging (2018-2023) & (Units)
- Figure 17. Liquid Crystal Phase Retarder Consumed in Optical Interference
- Figure 18. Global Liquid Crystal Phase Retarder Market: Optical Interference (2018-2023) & (Units)
- Figure 19. Liquid Crystal Phase Retarder Consumed in Optical Sensor
- Figure 20. Global Liquid Crystal Phase Retarder Market: Optical Sensor (2018-2023) & (Units)
- Figure 21. Liquid Crystal Phase Retarder Consumed in Optical Modulation
- Figure 22. Global Liquid Crystal Phase Retarder Market: Optical Modulation (2018-2023) & (Units)
- Figure 23. Liquid Crystal Phase Retarder Consumed in Others
- Figure 24. Global Liquid Crystal Phase Retarder Market: Others (2018-2023) & (Units)
- Figure 25. Global Liquid Crystal Phase Retarder Sales Market Share by Application (2022)
- Figure 26. Global Liquid Crystal Phase Retarder Revenue Market Share by Application

in 2022

Figure 27. Liquid Crystal Phase Retarder Sales Market by Company in 2022 (Units)

Figure 28. Global Liquid Crystal Phase Retarder Sales Market Share by Company in 2022

Figure 29. Liquid Crystal Phase Retarder Revenue Market by Company in 2022 (\$ Million)

Figure 30. Global Liquid Crystal Phase Retarder Revenue Market Share by Company in 2022

Figure 31. Global Liquid Crystal Phase Retarder Sales Market Share by Geographic Region (2018-2023)

Figure 32. Global Liquid Crystal Phase Retarder Revenue Market Share by Geographic Region in 2022

Figure 33. Americas Liquid Crystal Phase Retarder Sales 2018-2023 (Units)

Figure 34. Americas Liquid Crystal Phase Retarder Revenue 2018-2023 (\$ Millions)

Figure 35. APAC Liquid Crystal Phase Retarder Sales 2018-2023 (Units)

Figure 36. APAC Liquid Crystal Phase Retarder Revenue 2018-2023 (\$ Millions)

Figure 37. Europe Liquid Crystal Phase Retarder Sales 2018-2023 (Units)

Figure 38. Europe Liquid Crystal Phase Retarder Revenue 2018-2023 (\$ Millions)

Figure 39. Middle East & Africa Liquid Crystal Phase Retarder Sales 2018-2023 (Units)

Figure 40. Middle East & Africa Liquid Crystal Phase Retarder Revenue 2018-2023 (\$ Millions)

Figure 41. Americas Liquid Crystal Phase Retarder Sales Market Share by Country in 2022

Figure 42. Americas Liquid Crystal Phase Retarder Revenue Market Share by Country in 2022

Figure 43. Americas Liquid Crystal Phase Retarder Sales Market Share by Type (2018-2023)

Figure 44. Americas Liquid Crystal Phase Retarder Sales Market Share by Application (2018-2023)

Figure 45. United States Liquid Crystal Phase Retarder Revenue Growth 2018-2023 (\$ Millions)

Figure 46. Canada Liquid Crystal Phase Retarder Revenue Growth 2018-2023 (\$ Millions)

Figure 47. Mexico Liquid Crystal Phase Retarder Revenue Growth 2018-2023 (\$ Millions)

Figure 48. Brazil Liquid Crystal Phase Retarder Revenue Growth 2018-2023 (\$ Millions)

Figure 49. APAC Liquid Crystal Phase Retarder Sales Market Share by Region in 2022

Figure 50. APAC Liquid Crystal Phase Retarder Revenue Market Share by Regions in 2022

- Figure 51. APAC Liquid Crystal Phase Retarder Sales Market Share by Type (2018-2023)
- Figure 52. APAC Liquid Crystal Phase Retarder Sales Market Share by Application (2018-2023)
- Figure 53. China Liquid Crystal Phase Retarder Revenue Growth 2018-2023 (\$ Millions)
- Figure 54. Japan Liquid Crystal Phase Retarder Revenue Growth 2018-2023 (\$ Millions)
- Figure 55. South Korea Liquid Crystal Phase Retarder Revenue Growth 2018-2023 (\$ Millions)
- Figure 56. Southeast Asia Liquid Crystal Phase Retarder Revenue Growth 2018-2023 (\$ Millions)
- Figure 57. India Liquid Crystal Phase Retarder Revenue Growth 2018-2023 (\$ Millions)
- Figure 58. Australia Liquid Crystal Phase Retarder Revenue Growth 2018-2023 (\$ Millions)
- Figure 59. China Taiwan Liquid Crystal Phase Retarder Revenue Growth 2018-2023 (\$ Millions)
- Figure 60. Europe Liquid Crystal Phase Retarder Sales Market Share by Country in 2022
- Figure 61. Europe Liquid Crystal Phase Retarder Revenue Market Share by Country in 2022
- Figure 62. Europe Liquid Crystal Phase Retarder Sales Market Share by Type (2018-2023)
- Figure 63. Europe Liquid Crystal Phase Retarder Sales Market Share by Application (2018-2023)
- Figure 64. Germany Liquid Crystal Phase Retarder Revenue Growth 2018-2023 (\$ Millions)
- Figure 65. France Liquid Crystal Phase Retarder Revenue Growth 2018-2023 (\$ Millions)
- Figure 66. UK Liquid Crystal Phase Retarder Revenue Growth 2018-2023 (\$ Millions)
- Figure 67. Italy Liquid Crystal Phase Retarder Revenue Growth 2018-2023 (\$ Millions)
- Figure 68. Russia Liquid Crystal Phase Retarder Revenue Growth 2018-2023 (\$ Millions)
- Figure 69. Middle East & Africa Liquid Crystal Phase Retarder Sales Market Share by Country in 2022
- Figure 70. Middle East & Africa Liquid Crystal Phase Retarder Revenue Market Share by Country in 2022
- Figure 71. Middle East & Africa Liquid Crystal Phase Retarder Sales Market Share by Type (2018-2023)
- Figure 72. Middle East & Africa Liquid Crystal Phase Retarder Sales Market Share by

Application (2018-2023)

Figure 73. Egypt Liquid Crystal Phase Retarder Revenue Growth 2018-2023 (\$ Millions)

Figure 74. South Africa Liquid Crystal Phase Retarder Revenue Growth 2018-2023 (\$ Millions)

Figure 75. Israel Liquid Crystal Phase Retarder Revenue Growth 2018-2023 (\$ Millions)

Figure 76. Turkey Liquid Crystal Phase Retarder Revenue Growth 2018-2023 (\$ Millions)

Figure 77. GCC Country Liquid Crystal Phase Retarder Revenue Growth 2018-2023 (\$ Millions)

Figure 78. Manufacturing Cost Structure Analysis of Liquid Crystal Phase Retarder in 2022

Figure 79. Manufacturing Process Analysis of Liquid Crystal Phase Retarder

Figure 80. Industry Chain Structure of Liquid Crystal Phase Retarder

Figure 81. Channels of Distribution

Figure 82. Global Liquid Crystal Phase Retarder Sales Market Forecast by Region (2024-2029)

Figure 83. Global Liquid Crystal Phase Retarder Revenue Market Share Forecast by Region (2024-2029)

Figure 84. Global Liquid Crystal Phase Retarder Sales Market Share Forecast by Type (2024-2029)

Figure 85. Global Liquid Crystal Phase Retarder Revenue Market Share Forecast by Type (2024-2029)

Figure 86. Global Liquid Crystal Phase Retarder Sales Market Share Forecast by Application (2024-2029)

Figure 87. Global Liquid Crystal Phase Retarder Revenue Market Share Forecast by Application (2024-2029)

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