

Thin-Film Battery Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028

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Abstracts

Market Overview 2023-2028:

The global thin-film battery market size reached US\$ 570.4 Million in 2022. Looking forward, IMARC Group expects the market to reach US\$ 2,124.3 Million by 2028, exhibiting a growth rate (CAGR) of 26.71% during 2023-2028.

Thin-film batteries are solid-state batteries which implies that they use both solid electrodes and a solid electrolyte. These batteries are very distinctive when compared to other batteries as they are just a few hundred nanometers thick. Thin-film batteries contains a cathode and an anode along with an electrolyte and separator between the two just like any other conventional battery. They are thin in comparison to other batteries that are available in the market. The electrode material used in these batteries is layered which implies that there is no need to add layers during the construction of the battery. The electrodes improve the overall performance of the battery and also increases its ability to function in different ranges which make thin-film batteries highly compatible to be used in different applications. Additionally, these batteries come with a great number of benefits, like they leave smaller footprints, are lower in cost, have high energy density, and are light in weight. The flat shape of thin-film batteries makes them more compatible with emerging technologies.

The thin-film battery market is exhibiting strong growth catalyzed by a rapid rise in the use of smartphones, tablets, and other electronic devices. With consumers being more technology-friendly, the demand for such electronic devices is witnessing robust growth. The steady increase in the usage of devices like smartwatch and fitness bands is making the consumption of thin-film batteries even more appropriate. Additionally, thin-

film batteries are flat-shaped and are perfect to be incorporated in smaller and thinner devices which further enhances their demand in the market. Being reliable, inexpensive, and smaller in size these batteries can be easily incorporated in our day to day wearable electronic devices. Thin-film batteries have a great battery backup, as a result of which, they are appropriate for devices with low-power consumption.

Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global thin-film battery market report, along with forecasts at the global and regional level from 2023-2028. Our report has categorized the market based on technology, battery type, voltage type and application.

Breakup by Technology:

- Thin-Film Lithium
- Thin-Film Lithium Polymer
- Zinc-Based Thin-Film
- Others

Based on the technology, the market has been segmented as thin-film lithium, thin-film lithium polymer, zinc-based thin-film and others. Thin-film lithium batteries currently represent the biggest segment.

Breakup by Battery Type:

- Rechargeable
- Disposable

Based on the battery type, the market has been segmented as disposable and rechargeable. Thin-film rechargeable batteries currently represent the largest segment.

Breakup by Voltage Type:

- Below 1.5V
- 1.5V to 3V
- Above 3V

Based on the voltage, the market has been segmented as - below 1.5V, 1.5V to 3V and

above 3V.

Breakup by Application:

- Smart Cards and RFID
- Medical Applications
- Smart Wearables
- Wireless Sensor Network Systems
- Portable Electronics
- Others

Based on the application, the market has been segmented as smart cards and RFID, medical applications, smart wearables, WSNs and portable electronics. The smart wearables segment currently represent the largest application.

Regional Insights:

- North America
- Asia Pacific
- Europe
- Middle East and Africa
- Latin America

Region-wise, the market has been segmented into North America, Asia Pacific, Europe, Middle East and Africa, and Latin America. Amongst these, North America is the biggest market, accounting for the majority of the global market.

Competitive Landscape:

The competitive landscape of the market has also been examined with some of the key players being Blue Spark Technologies, BrightVolt, Enfucell Oy, STMicroelectronics N.V., Cymbet Corporation, Imprint Energy, Ilika PLC, LG Chem, Ltd, Paper Battery Company and Jenax Inc.

This report provides a deep insight into the global thin-film battery market covering all its essential aspects. This ranges from macro overview of the market to micro details of the industry performance, recent trends, key market drivers and challenges, SWOT analysis, Porter's five forces analysis, value chain analysis, etc. This report is a must-read for entrepreneurs, investors, researchers, consultants, business strategists, and all

those who have any kind of stake or are planning to foray into the thin-film battery industry in any manner.

Key Questions Answered in This Report:

What was the size of the global thin-film battery market in 2022?

What is the expected growth rate of the global thin-film battery market during 2023-2028?

What has been the impact of COVID-19 on the global thin-film battery market?

What are the key factors driving the global thin-film battery market?

What is the breakup of the global thin-film battery market based on the technology?

What is the breakup of the global thin-film battery market based on the battery type?

What is the breakup of the global thin-film battery market based on the voltage type?

What is the breakup of the global thin-film battery market based on the application?

What are the key regions in the global thin-film battery market?

Who are the key players/companies in the global thin-film battery market?

Contents

1 PREFACE

2 SCOPE AND METHODOLOGY

- 2.1 Objectives of the Study
- 2.2 Stakeholders
- 2.3 Data Sources
 - 2.3.1 Primary Sources
 - 2.3.2 Secondary Sources
- 2.4 Market Estimation
 - 2.4.1 Bottom-Up Approach
 - 2.4.2 Top-Down Approach
- 2.5 Forecasting Methodology

3 EXECUTIVE SUMMARY

4 INTRODUCTION

- 4.1 Overview
- 4.2 Key Industry Trends

5 GLOBAL THIN-FILM BATTERY MARKET

- 5.1 Market Overview
- 5.2 Market Performance
- 5.3 Impact of COVID-19
- 5.4 Market Breakup by Technology
- 5.5 Market Breakup by Battery Type
- 5.6 Market Breakup by Voltage Type
- 5.7 Market Breakup by Application
- 5.8 Market Breakup by Region
- 5.9 Market Forecast
- 5.10 SWOT Analysis
 - 5.10.1 Overview
 - 5.10.2 Strengths
 - 5.10.3 Weaknesses
 - 5.10.4 Opportunities

5.10.5 Threats

5.11 Value Chain Analysis

5.11.1 Overview

5.11.2 Research and Development

5.11.3 Raw Material Procurement

5.11.4 Manufacturing

5.11.5 Marketing

5.11.6 Distribution

5.11.7 End-Use

5.12 Porters Five Forces Analysis

5.12.1 Overview

5.12.2 Bargaining Power of Buyers

5.12.3 Bargaining Power of Suppliers

5.12.4 Degree of Competition

5.12.5 Threat of New Entrants

5.12.6 Threat of Substitutes

5.13 Price Analysis

5.13.1 Key Price Indicators

5.13.2 Price Structure

5.13.3 Margin Analysis

6 MARKET BREAKUP BY TECHNOLOGY

6.1 Thin-Film Lithium

6.1.1 Market Trends

6.1.2 Market Forecast

6.2 Thin-Film Lithium Polymer

6.2.1 Market Trends

6.2.2 Market Forecast

6.3 Zinc-Based Thin-Film

6.3.1 Market Trends

6.3.2 Market Forecast

6.4 Others

6.4.1 Market Trends

6.4.2 Market Forecast

7 MARKET BREAKUP BY BATTERY TYPE

7.1 Rechargeable

- 7.1.1 Market Trends
- 7.1.2 Market Forecast
- 7.2 Disposable
 - 7.2.1 Market Trends
 - 7.2.2 Market Forecast

8 MARKET BREAKUP BY VOLTAGE TYPE

- 8.1 Below 1.5V
 - 8.1.1 Market Trends
 - 8.1.2 Market Forecast
- 8.2 1.5V to 3V
 - 8.2.1 Market Trends
 - 8.2.2 Market Forecast
- 8.3 Above 3V
 - 8.3.1 Market Trends
 - 8.3.2 Market Forecast

9 MARKET BREAKUP BY APPLICATION

- 9.1 Smart Cards and RFID
 - 9.1.1 Market Trends
 - 9.1.2 Market Forecast
- 9.2 Medical Applications
 - 9.2.1 Market Trends
 - 9.2.2 Market Forecast
- 9.3 Smart Wearables
 - 9.3.1 Market Trends
 - 9.3.2 Market Forecast
- 9.4 Wireless Sensor Network Systems
 - 9.4.1 Market Trends
 - 9.4.2 Market Forecast
- 9.5 Portable Electronics
 - 9.5.1 Market Trends
 - 9.5.2 Market Forecast
- 9.6 Others
 - 9.6.1 Market Trends
 - 9.6.2 Market Forecast

10 MARKET BREAKUP BY REGION

10.1 North America

10.1.1 Market Trends

10.1.2 Market Forecast

10.2 Asia Pacific

10.2.1 Market Trends

10.2.2 Market Forecast

10.3 Europe

10.3.1 Market Trends

10.3.2 Market Forecast

10.4 Middle East and Africa

10.4.1 Market Trends

10.4.2 Market Forecast

10.5 Latin America

10.5.1 Market Trends

10.5.2 Market Forecast

11 THIN-FILM BATTERY MANUFACTURING PROCESS

11.1 Product Overview

11.2 Raw Material Requirements

11.3 Manufacturing Process

11.4 Key Success and Risk Factors

12 COMPETITIVE LANDSCAPE

12.1 Market Structure

12.2 Key Players

12.3 Profiles of Key Players

12.3.1 Blue Spark Technologies

12.3.2 BrightVolt

12.3.3 Enfucell Oy

12.3.4 STMicroelectronics N.V.

12.3.5 Cymbet Corporation

12.3.6 Imprint Energy

12.3.7 Ilika PLC

12.3.8 LG Chem, Ltd

12.3.9 Paper Battery Company

12.3.10 Jenax Inc.

List Of Tables

LIST OF TABLES

Table 1: Global: Thin-Film Battery Market: Key Industry Highlights, 2022 and 2028

Table 2: Global: Thin-Film Battery Market Forecast: Breakup by Technology (in Million US\$), 2023-2028

Table 3: Global: Thin-Film Battery Market Forecast: Breakup by Battery Type (in Million US\$), 2023-2028

Table 4: Global: Thin-Film Battery Market Forecast: Breakup by Voltage Type (in Million US\$), 2023-2028

Table 5: Global: Thin-Film Battery Market Forecast: Breakup by Application (in Million US\$), 2023-2028

Table 6: Global: Thin-Film Battery Market Forecast: Breakup by Region (in Million US\$), 2023-2028

Table 7: Thin-Film Battery Manufacturing: Raw Material Requirements

Table 8: Global: Thin-Film Battery Market: Competitive Structure

Table 9: Global: Thin-Film Battery Market: Key Players

List Of Figures

LIST OF FIGURES

Figure 1: Global: Thin-Film Battery Market: Major Drivers and Challenges

Figure 2: Global: Thin-Film Battery Market: Sales Value (in Million US\$), 2017-2022

Figure 3: Global: Thin-Film Battery Market: Breakup by Technology (in %), 2022

Figure 4: Global: Thin-Film Battery Market: Breakup by Battery Type (in %), 2022

Figure 5: Global: Thin-Film Battery Market: Breakup by Voltage Type (in %), 2022

Figure 6: Global: Thin-Film Battery Market: Breakup by Application (in %), 2022

Figure 7: Global: Thin-Film Battery Market: Breakup by Region (in %), 2022

Figure 8: Global: Thin-Film Battery Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 9: Global: Thin-Film Battery Industry: SWOT Analysis

Figure 10: Global: Thin-Film Battery Industry: Value Chain Analysis

Figure 11: Global: Thin-Film Battery Industry: Porter's Five Forces Analysis

Figure 12: Global: Thin-Film Battery (Thin-Film Lithium) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 13: Global: Thin-Film Battery (Thin-Film Lithium) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 14: Global: Thin-Film Battery (Thin-Film Lithium Polymer) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 15: Global: Thin-Film Battery (Thin-Film Lithium Polymer) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 16: Global: Thin-Film Battery (Zinc-Based Thin-Film) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 17: Global: Thin-Film Battery (Zinc-Based Thin-Film) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 18: Global: Thin-Film Battery (Others) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 19: Global: Thin-Film Battery (Others) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 20: Global: Thin-Film Battery (Rechargeable) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 21: Global: Thin-Film Battery (Rechargeable) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 22: Global: Thin-Film Battery (Disposable) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 23: Global: Thin-Film Battery (Disposable) Market Forecast: Sales Value (in

Million US\$), 2023-2028

Figure 24: Global: Thin-Film Battery (Below 1.5V) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 25: Global: Thin-Film Battery (Below 1.5V) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 26: Global: Thin-Film Battery (1.5V to 3V) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 27: Global: Thin-Film Battery (1.5V to 3V) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 28: Global: Thin-Film Battery (Above 3V) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 29: Global: Thin-Film Battery (Above 3V) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 30: Global: Thin-Film Battery (Smart Cards and RFID) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 31: Global: Thin-Film Battery (Smart Cards and RFID) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 32: Global: Thin-Film Battery (Medical Applications) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 33: Global: Thin-Film Battery (Medical Applications) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 34: Global: Thin-Film Battery (Smart Wearables) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 35: Global: Thin-Film Battery (Smart Wearables) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 36: Global: Thin-Film Battery (Wireless Sensor Network Systems) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 37: Global: Thin-Film Battery (Wireless Sensor Network Systems) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 38: Global: Thin-Film Battery (Portable Electronics) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 39: Global: Thin-Film Battery (Portable Electronics) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 40: Global: Thin-Film Battery (Others) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 41: Global: Thin-Film Battery (Others) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 42: North America: Thin-Film Battery Market: Sales Value (in Million US\$), 2017 & 2022

Figure 43: North America: Thin-Film Battery Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 44: Asia Pacific: Thin-Film Battery Market: Sales Value (in Million US\$), 2017 & 2022

Figure 45: Asia Pacific: Thin-Film Battery Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 46: Europe: Thin-Film Battery Market: Sales Value (in Million US\$), 2017 & 2022

Figure 47: Europe: Thin-Film Battery Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 48: Middle East and Africa: Thin-Film Battery Market: Sales Value (in Million US\$), 2017 & 2022

Figure 49: Middle East and Africa: Thin-Film Battery Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 50: Latin America: Thin-Film Battery Market: Sales Value (in Million US\$), 2017 & 2022

Figure 51: Latin America: Thin-Film Battery Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 52: Thin-Film Battery Manufacturing: Detailed Process Flow

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