Global and China Lithium Iron Phosphate ($LiFePO_4$) Material and Battery Industry Report, 2015-2018

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STUDY GOAL AND OBJECTIVES

This report provides the industry executives with strategically significant competitor information, analysis, insight and projection on the competitive pattern and key companies in the industry, crucial to the development and implementation of effective business, marketing and R&D programs.

REPORT OBJECTIVES

- To establish a comprehensive, factual, annually updated and cost-effective information base on market size, competition patterns, market segments, goals and strategies of the leading players in the market, reviews and forecasts.
- To assist potential market entrants in evaluating prospective acquisition and joint venture candidates.
- To complement the organizations' internal competitor information gathering efforts with strategic analysis, data interpretation and insight.
- To suggest for concerned investors in line with the current development of this industry as well as the development tendency.
- To help company to succeed in a competitive market, and

METHODOLOGY

Both primary and secondary research methodologies were used in preparing this study. Initially, a comprehensive and exhaustive search of the literature on this industry was conducted. These sources included related books and journals, trade literature, marketing literature, other product/promotional literature, annual reports, security analyst reports, and other publications. Subsequently, telephone interviews or email correspondence was conducted with marketing executives etc. Other sources included related magazines, academics, and consulting companies.

INFORMATION SOURCES

The primary information sources include Company Reports, and National Bureau of Statistics of China etc.

Abstract

As one of the main cathode materials for lithium-ion batteries, lithium iron phosphate (molecular formula is $LiFePO_4$, also known as LFP) features such strengths as high safety, long cycle life, and high temperature resistance. But its weakness is lower energy density. Lithium iron phosphate batteries can be used in electric vehicles, power tools, electric bicycles, energy storage devices, etc. For now, they are mainly used as power batteries for electric vehicles.

In 2014, some 12,500 tons of lithium iron phosphate were sold globally, and they were mainly sold to China, almost accounting for 75% of the total. That was mainly because Chinese electric vehicle enterprises tend to adopt lithium iron phosphate as power batteries of cathode materials. Additionally, China's great support for new energy vehicles has promoted the rapid increase of the country's demand for lithium iron phosphate. In contrast, cathode materials for power batteries in the US, Japan, and South Korea are dominated by ternary material and lithium manganate.

Globally, the traditional lithium iron phosphate material manufacturers mainly include the U.S.-based A123 and Valence and the Canada-based Phostech, which grasp mature mass-production technology. However, the demand for lithium iron phosphate battery in the US and European countries showed an ongoing decline, a situation that plunged them into financial difficulties.

For example, A123 filed a petition in bankruptcy in October 2012, and was finally acquired by China's Wanxiang Group; Valence retreated from NASDAQ in July 2012 as it had long been in the red.

In recent years, however, lithium iron phosphate enterprises in Mainland China and Taiwan have been developing very fast, accompanied by dramatic capacity expansion and rising market position. By the end of 2014, over 80% of the world's lithium iron phosphate originated from Mainland China and Taiwan, of which the Taiwanese lithium iron phosphate material manufacturers were mainly Formosa and Aleees, of which total capacity approximated 7,300 tons in 2014.

In 2014, Mainland China recorded a total capacity of about 30,000 tons of lithium iron phosphate. The major enterprises included Tianjin STL Energy Technology Co., Ltd., Guanghan Mufu Lithium Power Materials Co., Ltd., and Pulead Technology Industry Co., Ltd., etc. which contributed a combined capacity of 9,500 tons. Furthermore, there are several proposed and ongoing lithium iron phosphate projects in China. For example, Tianjin STL Energy Technology planned to expand its lithium iron phosphate capacity to 10,000 tons within three years; Pulead Technology's Base in Qinghai is working to construct a "5,000 tons/a lithium iron phosphate and other cathode materials" project (Phase II).

Room 502, Block 3, Tower C, Changyuan Tiandi Building, No. 18, Suzhou Street, Haidian District, Beijing, China 100080
Phone: +86 10 82600828 ● Fax: +86 10 82601570 ● www.researchinchina.com ● report@researchinchina.com

In terms of EV industry, China's mainstream cathode materials for power batteries are still lithium iron phosphate, which represents an around 40% share of power battery market, Major manufacturers consist of BYD, Guoxuan High-Tech, and Tianjin Lishen, etc. However, low energy density of lithium iron phosphate batteries restricts the EV's driving range, a situation that makes more and more enterprises turn to ternary materials. In the future, the application percentage of lithium iron phosphate batteries in electric vehicles will fall.

However, the application of lithium iron phosphate batteries in energy storage, photovoltaic and communication batteries is on the rise, reflecting a huge space for development. In the field of electric bicycles, the batteries have obvious advantages over the traditional lead-acid batteries, hence a larger alternative space.

Global and China Lithium Iron Phosphate (LiFePO4) Material and Battery Industry Report, 2015-2018 compiled by ResearchInChina is primarily concerned with the following:

Market size, competition pattern, development prediction, etc. of the global lithium iron phosphate industry;

Market size, competition pattern, downstream demand, development prediction, etc. of China's lithium iron phosphate industry;

Operation, lithium iron phosphate business, etc. of 21 lithium iron phosphate companies at home and abroad;

Operation, lithium iron phosphate battery business, etc. of 11 lithium iron phosphate battery companies in China.


Capacity of Key LiFePo4 Materials Manufacturers in China Mainland, 2014
Unit: kt
Pulead 北大先行 PULEAD TECH
2.5
久兆新能源 Lasting Brilliance
2.0
广汉牧甫 Guanghan Mufu
3.0
湖南浩润 Hunan Haorun
2.0
BTR 贝特瑞
0.8
Beijing
Tianjin
Jinan
Deyang
Hefei
Changsha
Shenzhen
Yantai
Qingdao
Ningbo
4.0
STL 天津斯特兰 TIANJIN STL
2.0
烟台卓能 YANTAI ZHUONENG
1.5
ANYUN
1.5
宁波艾能 Ningbo Energy
1.0
国轩高科 GUOXUAN HIGH-TECH
Source: Global and China Lithium Iron Phosphate Material and Battery Industry Report, 2015-2018 by ResearchInChina

Table of contents

Table of contents

Selected Charts

- Classification of Motive Power Battery
- Performance of All kinds of Lithium Batteries
- Industry Chain of LiFePo4 Battery
- Global and Chinese Power Battery Companies and Their Main Products
- Sales Volume and Growth Rate of Global Lithium Battery Cathode Materials, 2011-2015
- Consumption Proportion of Cathode Material for Lithium Batteries in the World, 2014
- Sales Volume of LiFePo4 and Its Proportion of Cathode Material around the World, 2010-2014
- Capacity of Key LiFePo4 Materials Manufacturers in Taiwan, 2011-2015
- Sales Volume of Lithium Battery Cathode Materials in China, 2011-2015
- Major Varieties and Sales Volume Proportion of Lithium Battery Cathode Materials in China, 2014
- Sales Volume of LiFePo4 and Its Proportion of Cathode Material in China, 2007-2014
- Capacity of Key LiFePo4 Materials Manufacturers in Mainland China, 2014
- Lithium Iron Phosphate Projects under Construction in China, 2015
- Output of New Energy Vehicles in China, 2010-2015
- Estimated Demand for Lithium Battery for New Energy Vehicles in China, 2010-2015
- Quantity of Supported Power Battery of New Energy Vehicles in China by Type as of Jul. 2014
- Capacity of Major Chinese Power Lithium Battery Manufacturers, 2014
- Market Size Forecast of LiFePo4 Battery Used in Electric Car in China
- China's EV Output, 2011-2015
- China's Power Tool Output, 2009-2014
- Electric Bicycle Output in China, 2006-2014
- Installed Capacity of Wind Power and Photovoltaic, 2006-2014
- Major New Energy Vehicle Models and Supported Power Battery in China
- Battery Technology and Supporting Manufacturers of Power Lithium Battery Enterprises in China, 2014
- History of A123 Systems

Selected Charts

- Revenue and Gross Profit of A123 Systems, FY2007- FY2012
- Revenue and Net Profit of Valence, FY2008-FY2012
- Operation of Valence's Subsidiaries in China
- History of Phostech
- Aleees' Revenue and Net Income, 2011-2015
- Aleees' Revenue Breakdown by Product, 2012-2014
- Aleees' Revenue Structure by Product, 2012-2014
- Aleees' Revenue Breakdown by Region, 2012-2014
- Aleees' Revenue Structure by Region, 2012-2014
- Aleees' LiFePO4 Material Capacity and Output, 2012-2014
- Aleees' LiFePO4 Material Sales Volume, 2012-2014
- Hirose's Financial Condition, 2009-2012
- Revenue of Tatung Fine Chemicals Co., Ltd., 2009-2015
- History of LiFePo4 R&D of Tatung Fine Chemicals Co., Ltd.
- Development History of Tianjin STL Energy Technology
- LiFePO4 Capacity of Tianjin STL Energy Technology, 2007-2017E
- Major Production Bases of Shenzhen BTR
- Revenue and Net Income of Shenzhen BeiTerui, 2012-2014
- LiFePo4 Development of BTR
- Revenue and LiFePO4 Capacity of Yantai ZhuoNeng Battery Material, 2011-2014
- Major Customers of Yantai ZhuoNeng Battery Material
- Development History of Nanjing Lasting Brilliance New Energy
- Revenue and Net Income of Hunan Shanshan, 2010-2014
- Cathode Material Sales Volume of Hunan Shanshan, 2009-2014
- Main lithium Iron Phosphate Products of Hunan Shanshan

Selected Charts

- Revenue and Net Income of GuoXuan High-Tech, 2011-2014
- Development History of Guoxuan High-Tech
- Marketing of Guoxuan High-Tech Major Products
- History of Tianjiao Technology
- The Main Products Capacity of TianJiao Technology, 2014
- Revenue and Net Income of Tiaojiao Technology, 2012-2014
- Capacity of Main Products of Xinxiang Huaxin
- BYD’s Revenue and Net Income, 2010-2014
- BYD’s Revenue Breakdown by Product, 2012-2014
- BYD’s Revenue Structure by Product, 2012-2014
- BYD’s Revenue Breakdown by Region, 2012-2014
- BYD’s Revenue Structure by Region, 2012-2014
- Goss Margin of BYD’s Leading Products, 2012-2014
- BYD’s Revenue and Net Income, 2014-2018E
- Revenue and Net Income of Shenzhen BAK Battery, FY2011-FY2014
- Revenue of Shenzhen BAK Battery by Product，FY2009-FY2013
- Revenue of Shenzhen BAK Battery by Region，FY2009-FY2013
- Revenue Structure of Shenzhen BAK Battery by Region, FY2009-FY2013
- R&D Costs and % of Total Revenue of Shenzhen BAK Battery, FY2010-FY2013
- Revenue of Tianjin Lishen, 2008-2014
- Development History of Tianjin Lishen
- Patents of Shenzhen Mottcell Battery
- LiFePo4 Battery Application of CENS Energy-Tech
- HiPower New Energy Group
- Development History of LiFePo4 Battery Business of Pihsiang Energy Technology

Selected Charts

- Development History of Henan Huanyu Group
- Chinese and Global Lithium Iron Phosphate Sales Volume and Proportion, 2011-2018E
- Capacity of Lithium Iron Phosphate Material Manufacturers in China (including Taiwan), 2014/2018E

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