Global and China Lithium Iron Phosphate (LiFePO4) Material and Battery Industry Report, 2015-2018

Jul. 2015
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.

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
Abstract

As one of the main cathode materials for lithium-ion batteries, lithium iron phosphate (molecular formula is LiFePO4, 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 Alees, 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).
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: 2.5
- LBN: 2.0
- Guanghan Mufu: 3.0
- Hunan Haorun: 2.0
- BTR: 0.8
- Beijing: 4.0
- Tianjin: 2.0
- Jinan: 2.0
- Yantai: 1.5
- Qingdao: 1.5
- Hefei: 1.5
- Ningbo: 1.0
- Changsha: 1.0
- Deyang: 1.0
- Shenzhen: 1.0

Source: Global and China Lithium Iron Phosphate Material and Battery Industry Report, 2015-2018 by ResearchInChina
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