



Global and China Lithium Battery Separator Industry Report, 2014-2016

Jun. 2014

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

The lithium battery cell is composed of cathode material, anode material, electrolyte and separator, of which, lithium battery separator as a high value-added material with the highest technical barrier among lithium battery materials accounts for about 15-20% of the battery cost. The main role of the separator is to separate the positive and negative electrodes of the lithium-ion battery, thus preventing two neighboring contacts from a short circuit.

In 2013, the global and Chinese lithium battery separator mainly presented the following characteristics:

First, the global capacity was expanded by a large margin, and prices continued to fall.

According to ResearchInChina, the global mainstream suppliers of separator (other than China) had put 1.018-billion-m² capacity into production as of 2013, of which, the wet process held a dominant position by attaining 848 million m²; the dry process contributed 170 million m², which came mainly from U.S.-based Celgard and Japan-based UBE Industries, with 180-million-m² dry process capacity under construction.

The global shipment of lithium battery separator increased from 273 million m² in 2008 to 843 million m² in 2013, so did the overall capacity from 362 million m² to 1.9 billion m², the capacity expansion grew much faster than demand. The global capacity utilization then fell to 44% in 2013.

Boosted by the huge market demand for separator, the global capacity will continue to be released. It is expected that the global lithium battery separator market will be featured with quantity increases and price collapses, with the average price falling from USD1.73 / m² in 2013 to USD1.48 / m² in 2016.

Second, the lithium battery separator market concentration continued to decline.

As the Chinese lithium battery separator capacity was put into production in large quantities, the global separator market concentration suffered decline. In 2013, Japan-based Asahi Kasei, U.S.-based Celgard, South Korea-based SKI and Japan-based Toray Tonen occupied a 56.8% share of the global market, showing a sharp decline as opposed to the market concentration in 2008, when Asahi Kasei, Celgard, Toray Tonen and UBE Industries as the top four companies accounted for 82.8%.

In 2013, China's domestic separator shipment reached 265 million m², showing a year-on-year increase of 61%, the proportion (in global shipment) rose from 17% in 2010 to 31% in 2013, so did the localization rate from 28% to 52%. The same year, the three biggest suppliers of separator in China - Xinxiang Zhongke Science and Technology (GREEN) Co., Ltd, Shenzhen Senior Technology Material Co., LTD and Foshan Jinhui Hi-tech Optoelectronic Material Co., Ltd hit 52.4% market share.

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Third, the high-performance separator will become the main demand growth point for the future lithium battery separator market.

In 2013, the global shipment of lithium battery separator attained 843 million m², up 33.2% YoY; the compound growth rate was 22.6% in 2007-2013. In view of the strong demand from electric vehicles, energy storage devices, etc. for power lithium battery, the global demand for lithium battery separator will come to 1.99 billion m² in 2016, at a compound growth rate as high as 33% in 2013-2016.

The global shipment of ordinary lithium battery separator used for 3C electronic products reached 633 million m² in 2013, expected to grow at a compound rate of only 11% in 2013-2016, to 1.135 billion m² by 2016. This is due to the slowdown in global demand for notebook, smartphone, tablet PC and other digital products since 2014.

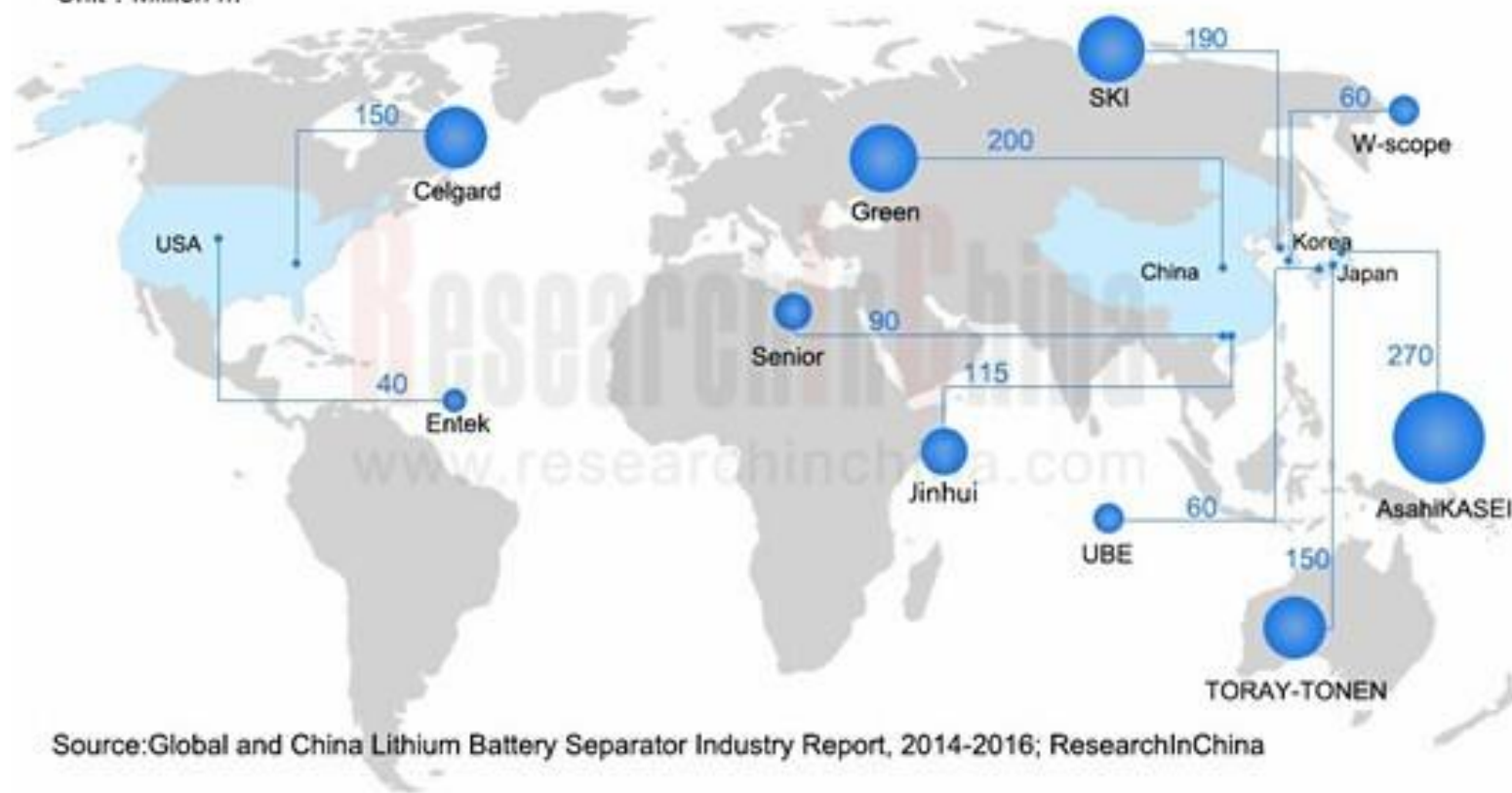
In 2013, the global shipment of high-performance separator used for electric vehicles and energy storage devices realized 210 million m², accounting for 25% of the demand; by 2016, the shipment will hit 1.135 billion m² (at a compound growth rate of 75% in 2013-2016), with a demand proportion of 57%. Thus, the high-performance separator will become the main demand growth point for the lithium battery separator market in the future.

Global and China Lithium Battery Separator Industry Report, 2014-2016 by ResearchInChina mainly covers the followings:

- ✘ Production preparation process, key technical performance and technology development direction of lithium battery separator;
- ✘ Shipment, import volume, market size, price, etc. of the global and Chinese lithium battery separator industry;
- ✘ Market share, manufacturing technique, capacity, supply relationship, etc. of global and Chinese lithium battery separator companies;
- ✘ Shipment, market size, cell vendors of global and Chinese ordinary lithium batteries and power batteries.
- ✘ Operation, technology, market, production & marketing of ten lithium battery separator companies in China;
- ✘ Operation, technology, market, production & marketing of nine lithium battery separator companies in the world.

Capacity of Major Lithium Battery Separator Enterprises, 2013

Unit : Million m²



Source: Global and China Lithium Battery Separator Industry Report, 2014-2016; ResearchInChina

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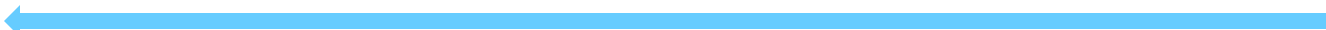
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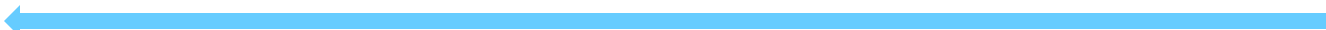
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