Global and China Automotive Lithium Battery Industry Report, 2011-2012

Aug. 2012

ResearchInChina
www.researchinchina.com

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 China Battery Industry Association, National Bureau of Statistics of China and WIND Database etc.

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

Abstract

The report highlights the followings:

- Introduction to lithium battery, HEV, PHEV and EV
- Market and industry pattern of automotive lithium battery
- Lithium battery cathode industry
- 15 lithium battery cathode vendors
- Lithium battery anode industry
- 3 lithium battery anode vendors
- Lithium battery separator industry
- 8 lithium battery separator vendors
- Lithium battery electrolyte industry
- 7 lithium battery electrolyte vendors
- 9 automotive lithium battery vendors

Three categories of automotive lithium battery are hybrid electric vehicle (HEV), plug-in hybrid electric vehicle (PHEV) and electric vehicle (EV), of which EV is also called battery electric vehicle (BEV) and derives all its power from battery packs. Toyota Prius is a typical HEV and occupies roughly 70% HEV market share. It is the only full hybrid electric vehicle and features exceedingly high technical barriers, and other companies can only develop micro hybrid or mild hybrid electric vehicles. In 2011, the sales volume of Toyota Prius hit 630,000 units.

The market size of automotive lithium battery approximated USD1.3 billion in 2011 and is expected to reach USD1.8 billion in 2012, USD2.8 billion in 2013 and USD4.4 billion in 2015. In 2011, the sales volume of HEVs and EVs got to around 900,000 units and 437,000 units respectively. However, EV serves as the largest consumer of automotive lithium battery. For instance, 78% of the demand for automotive lithium battery was from EVs in 2011. It is expected that EVs will be the largest market for automotive lithium battery from now until 2018.

Revenue of Key Automotive Lithium Battery Companies, 2010-2012 (Unit: US$M)

	2010	2011	2012
A123	44	84	30
PEV	182	206	320
GS YUASA	138	268	405
AESC	189	443	602
SB LiMotive	20	27	50
LG chemical	70	280	420
Hitachi Vehicle Energy	30	50	90

Source：RIC <Global and China Automotive Lithium Battery Industry Report, 2011-2012>

In the EV market, Nissan Leaf and Mitsubishi i-MiEV are the shining ones. AESC is the sole supplier of lithium battery for Leaf, as well as for Renault's Fuluence and Kangoo. Now GS Yuasa's LEJ acts as the sole supplier of lithium battery for i-MiEV and French PSA.

The PHEVs include GM's Chevrolet Volt, Toyota's Prius PHV and BYD's F3DM. LG Chem supplies lithium battery for Chevrolet Volt, Ford's EV Focus, Hyundai's HEV and Volvo which is held by Geely. PEV supplies lithium battery for Toyota, VW's Q5 HEV and JETTA HEV. Hitachi Vehicle Energy provides lithium battery for GM's 2012 Buick LaCrosse, 2012 Buick Regal and 2013 Chevrolet Malibu Eco. And Toshiba will provide lithium battery for Honda's EV Fit.

Wanxiang Group acquired 80% equities in A123 Systems which provides lithium battery for BMW's HEV. A123 Systems suffered a huge loss and ran out of cash in Q2 2012, so it had to sell its shares for cash to maintain operation, and Wanxiang Group should make preparations for long-term losses. Ener1, which was once heavily subsidized by the U.S. government, was delisted from Nasdaq in January 2012 and once maintained cooperative relationship with Wanxiang Group. After seven consecutive years of huge losses, it has filed for bankruptcy protection.

SB LiMotive is a joint venture between Samsung SDI and Bosch, but their cooperation came to an end in July 2012. Bosch will partner with the world's chemical giant BASF to establish lithium battery production lines, while Samsung SDI will acquire the shares held by Bosch. In 2011, SB LiMotive realized revenue of KRW29.5 billion, but made a loss of KRW175.5 billion.

In addition to LG Chem, Japanese companies are absolutely the overlord in the automotive lithium battery industry and exercise total control over the upstream raw materials and downstream vehicle markets. Except for Toshiba that invents special SCiB, other producers including LG Chem tend to choose LMO for cathode materials, which means that LFP will be completely eliminated.

Table of contents

Selected Charts

- Capacity of HEV, PHEV and EV Lithium Battery, 2012
- NECO's Lithium Battery Performance Roadmap
- Basic Structure of Lithium Battery
- Working Principle of Lithium Battery
- Fabrication Process of Lithium Battery
- Assembly Process of Square Battery
- Assembly Process of Pouch Battery
- Sales Volume of Toyota's HEV, 2000-Apr. 2012
- HEV, EV and PHEV Sales Volume Worldwide, 2009-2020E
- HEV, EV and PHEV Sales Volume in North America, 2009-2020E
- HEV, EV and PHEV Sales Volume in Europe, 2009-2020E
- HEV, EV and PHEV Sales Volume in Japan, 2009-2020E
- HEV, EV and PHEV Sales Volume in China, 2009-2020E
- Supply Relationship between Automotive Lithium Battery Vendors and Auto Brands
- Vehicle Lithium Battery Alliances
- Market Size of Vehicle Lithium Battery by Technology, 2009-2020E
- Sales Volume of HEV, PHEV and EV, 2009-2020E
- ASP of Lithium Battery for EV, HEV and PHEV, 2009-2020E
- Capacity of EV and PHEV Lithium Battery, 2009-2020E
- ASP per KWH of EV and PHEV Lithium Battery, 2009-2020E
- Revenue of Key Automotive Lithium Battery Vendors Worldwide, 2010-2012
- Shipment of Key Lithium Battery Producers Worldwide, 2005-2012
- Ranking of Main Lithium Battery Producers Worldwide by Revenue, 2009-2012
- Cost Structure of Lithium Cobalt Oxide Lithium Battery
- Lithium Battery Industry Chain

Selected Charts

- Global Lithium Ore Supply by Region
- Distribution of Global Lithium Ore Companies
- Comparison of Major Cathode Material Technologies
- Shipment of Global Lithium Battery Cathode Material by Technology, 2009-2014E
- Market Share of Key Global Producers of Cathode Material for Lithium Battery, 2010
- Market Share of Key Global Producers of Cathode Material for Lithium Battery, 2011
- Global Shipment of Cathode Material for Lithium Battery by Type, 2011
- Supply Relationship between Lithium Cobalt Oxide Vendors and Battery Producers
- Ranking of Global Major Vendors of Lithium Battery Cathode by Revenue, 2010-2012
- Ranking of Chinese Vendors of Lithium Battery Cathode by Revenue, 2010-2011
- Suppliers of Lithium Iron Phosphate in China, 2010
- Organizational Structure of Umicore
- Revenue and EBIT Margin of Umicore, 2005-2012
- Revenue and EBIT of Umicore Energy Material, 2008-2011
- Umicore’s Battery Material Bases
- Umicore’s Organizational Structure in China
- Umicore’s Presence in China
- Umicore’s Revenue in China by Product
- Revenue and Gross Margin of Shanshan, 2007-2012
- Revenue and Operating Margin of Shanshan, 2007-2012
- Revenue of Shanshan by Product, 2007-2011
- Easpring’s Subsidiaries
- Easpring’s Customer Distribution, 2007-2009
- Easpring’s Cost Distribution, 2009
- Revenue and Operating Margin of Easpring, 2007-2012

Selected Charts

- Revenue of Easpring by Client, 2011
- Organizational Structure of Hunan Reshine New Material
- Revenue of Tianjin B&M Science and Technology by Product, 2007-2009
- Capacity and Output of Tianjin B&M Science and Technology, 2007-2009
- Sales Volume of Tianjin B&M Science and Technology, 2007-2009
- Top 5 Clients of Tianjin B&M Science and Technology, 2009
- Top 5 Suppliers of Tianjin B&M Science and Technology, 2007-2009
- Organizational Structure of Pulead Technology Industry
- Revenue and Operating Margin of Nichia, 2003-2012
- Revenue and Operating Margin of Nichia's Material Division, 2007-2012
- L&F's Revenue and Operating Income, 2006-2012
- L&F's Revenue and % of Battery Material Revenue in Total Revenue, 2006-2011
- Revenue and Operating Income of Tanaka Chemical, FY2006-FY2013
- Tanaka Chemical's Shipment, FY2009-FY2012
- Tanaka Chemical's Revenue by Application, FY2010-FY2012
- Revenue and Operating Income of Toda Kogyo, FY2006-FY2013
- Revenue of Toda Kogyo's Battery Cathode Materials, FY2006-FY2012
- Global Distribution of Toda Kogyo's Battery Material Production Bases
- Comparison of Key Anode Material Technologies
- Global Shipment of Anode Material for Lithium Battery by Type, 2011
- Supply Relationship between Lithium Battery Anode Vendors and Battery Producers
- Market Share of Major Vendors of Anode Material for Lithium Battery, 2010
- Market Share of Major Vendors of Anode Material for Lithium Battery, 2011
- Market Share of Major Vendors of Anode Material for Lithium Battery, 2012
- Organizational Structure of Shenzhen BTR

Selected Charts

- Financial Performance of Shenzhen BTR, 2008-2011
- Revenue and Operating Margin of Hitachi Chemical, FY2004-FY2011
- Revenue of Hitachi Chemical by Division, FY2004-FY2010
- Market Share of Major Lithium Battery Separator Material Vendors, 2010
- Market Share of Major Lithium Battery Separator Material Vendors, 2011
- Market Share of Major Lithium Battery Separator Material Vendors, 2012
- Main Clients of Major Lithium Battery Separator Material Vendors, 2010
- Revenue and Operating Income of Asahi Kasei, FY2005-FY2011
- Revenue of Asahi Kasei by Product, FY2009-FY2011
- Operating Income of Asahi Kasei by Product, FY2009-FY2011
- Organizational Structure of Asahi Kasei
- Organizational Structure of Electronic Material Division of Asahi Kasei
- Revenue and Operating Margin of Polypore, 2005-2012
- Revenue of Polypore by Product, 2005-2011
- Capacity and Growth Rate of Lithium Hexafluorophosphate (LiPF6) of Morita
- Market Share of Main Lithium Battery Electrolyte Vendors, 2010
- Market Share of Main Lithium Battery Electrolyte Vendors, 2011
- Market Share of Main Lithium Battery Electrolyte Vendors, 2012
- Market Share of Main Lithium-ion Battery Electrolyte Vendors in China, 2012
- UBE's Revenue by Division, FY2007-FY2010
- UBE's Operating Income by Division, FY2007-FY2010
- Revenue and Operating Margin of Soulbrain, 2006-2012
- Soulbrain's Revenue by Business, 2009-2012
- Revenue and Operating Income of Foosung, 2008-2012

Selected Charts

- Foosung’s Revenue by Product, 2008-2012
- Foosung’s LiPF6 Output, 2007-2012
- Revenue and Gross Profit of A123 Systems, 2006-2012
- Revenue and Gross Margin of A123 Systems, Q1 2011-Q2 2012
- Revenue of A123 Systems by Region, 2007-2011
- Revenue of A123 Systems by Business, 2007-2011
- Global Presence of A123 Systems
- Battery Application Examples of A123 Systems
- Revenue and Operating Income of Ener1, 2005-2011
- PEV’s Product Application Examples
- Product Parameters of PEV’s Lithium Battery
- Revenue and Operating Margin of GS Yuasa, FY2006-FY2013
- Revenue of GS Yuasa by Business, 2011-2013
- Production Bases of Lithium Energy Japan
- Revenue and EBITDA of LG Chem, 2004-2012
- Revenue of LG Chem’s Battery Business, Q1 2009-Q2 2012
- Revenue and Operating Margin of BYD, 2004-2012
- BYD’s Revenue by Product, 2005-2012
- Revenue of BYD’s Battery Business by Product, 2003-2015E
- Gross Margin and Capacity Utilization of BYD’s Rechargeable Battery Business, 2008-2015E
- Gross Margin of BYD’s Battery Business, 2008-2015E
- Average Selling Price of BYD’s Battery, 2006-2010
- BYD’s Battery Shipment, 2006-2011
- Revenue of BYD’s Battery Business by Product, 2008-2010
- Capacity, Output, Sales Volume and ASP of BYD’s Battery Business, 2008-2010

How to Buy

You can place your order in the following alternative ways:

1.Order online at www.researchinchina.com

2.Fax order sheet to us at fax number:+86 10 82601570

3. Email your order to: report@researchinchina.com

4. Phone us at +86 10 82600828/ 82601561

Party A:			
Name:			
Address:			
Contact Person:		Tel	
E-mail:		Fax	

Party B:			
Name:	Beijing Waterwood Technologies Co., Ltd (ResearchInChina)		
Address:	Room 502, Block 3, Tower C, Changyuan Tiandi Building, No. 18, Suzhou Street, Haidian District, Beijing, China 100080		
Contact Person:	Li Chen	Phone:	86-10-82600828
E-mail:	report@researchinchina.com	Fax:	86-10-82601570
Bank details:	Beneficial Name: Beijing Waterwood Technologies Co., Ltd Bank Name: Bank of Communications, Beijing Branch Bank Address: NO.1 jinxiyuan shijicheng,Landianchang,Haidian District,Beijing Bank Account No #: 110060668012015061217 Routing No # : 332906 Bank SWIFT Code: COMMCNSHBJG		

Title	**Format**	**Cost**
Total		

Choose type of format

PDF (Single user license) …………..2,300 USD

Hard copy ………………….…….2,400 USD

PDF (Enterprisewide license)…....... 3,600 USD

※ Reports will be dispatched immediately once full payment has been received. Payment may be made by wire transfer or credit card via PayPal.

ResearchInChina
www.researchinchina.com