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 the world’s most important manufacturing base of consumer electronics, China sees booming demand for MLCC and other passive elements, which spurs demand for MLCC electronic ceramic materials. Since 2011, China has been the world’s largest MLCC producer, but also the largest demander of MLCC electronic ceramics. In 2013, China needed 31,500 tons of MLCC electronic ceramics, representing a year-on-year increase of 12.1%.

Meanwhile, the global MLCC electronic ceramics capacity is mostly dominated by Japanese enterprises because of high technical barriers to the industry, while in China, only a handful of companies are capable of producing MLCC materials in large scale. As of 2013, China’s MLCC electronic ceramics capacity had been around 8,700 tons, lagging behind the demand. As new MLCC electronic ceramics projects go into production for the next two years, the supply shortage will be eased.

Judging from the competition pattern, Shandong Sinocera Functional Material Co., Ltd, Guangdong Fenghua Advanced Technology (Holding) Co., Ltd. and Xiantao Zhongxing Electronic Materials Co., Ltd. are a minority of companies that can implement mass production of MLCC electronic ceramics in China. As a MLCC manufacturer, Fenghua Advanced Technology utilizes the vast majority of its self-produced MLCC materials for its own need, even needing outsourcing. With the successive commissioning of Zhongxing Electronic’s 10,000 t/a project and Sinocera’s 1,500 t/a project, the two companies will hold the first two positions relying on their respective capacity of 13,000 t/a and 5,000 t/a in 2015.

China’s Demand for MLCC Electronic Ceramics, 2010-2015E

<table>
<thead>
<tr>
<th>Year</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014E</th>
<th>2015F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15,000</td>
<td>15,000</td>
<td>20,000</td>
<td>25,000</td>
<td>30,000</td>
<td>35,000</td>
</tr>
</tbody>
</table>

Source: Global and China MLCC Electronic Ceramics Industry Report, 2013-2015 by ResearchInChina
Global and China MLCC Electronic Ceramics Industry Report, 2013-2015 mainly focuses on the followings:

- Overview of China MLCC electronic ceramics industry, including development process, policies and regulations, market size, production and marketing, competition pattern, trends;
- Downstream MLCC market, embracing MLCC supply and demand, market segments, downstream demand, import and export;
- Profile, financial conditions, output, sales volume, main customers, flagship products, R&D, production base, technical characteristics, etc. of 13 key players at home and abroad, such as Sakai Chemical, Ferro, NCI, Fuji Titanium, KCM, SFC, Toda Kogyo, Sinocera, Fenghua Advanced Technology and Zhongxing Electronic.
1. Overview of MLCC Electronic Ceramics
   1.1 Profile
   1.2 Classification and Application
   1.3 Industry Chain
   1.4 Policy Environment
   1.5 Technology Environment
       1.5.1 Main Technologies
       1.5.2 Performance Gap between Chinese and Foreign Products

2. Development Status of Global MLCC Electronic Ceramics Industry
   2.1 Development Background
   2.2 Supply
   2.3 Demand
   2.4 Market Competition
   2.5 Japan
   2.6 South Korea
   2.7 Taiwan

3. Development Status of China MLCC Electronic Ceramics Industry
   3.1 Supply
   3.2 Demand
   3.3 Competition Pattern
   3.4 Development Prospect

4. Development of China MLCC Industry
   4.1 Market Size
   4.2 Output
   4.3 Import & Export
       4.3.1 Import
       4.3.2 Export
   4.4 Market Segments
       4.4.1 Military Market
       4.4.2 Industrial MLCC Market
       4.4.3 Consumer MLCC Market

5. Key Enterprises Worldwide
   5.1 Sakai Chemical
       5.1.1 Profile
       5.1.2 Development History
       5.1.3 Operation
       5.1.4 MLCC Electronic Ceramics Business
   5.2 Ferro
       5.2.1 Profile
       5.2.2 Operation
       5.2.3 MLCC Electronic Ceramics Business
   5.3 NCI
       5.3.1 Profile
       5.3.2 Operation
       5.3.3 MLCC Electronic Ceramics Business
       5.3.4 Business in China
   5.4 Fuji Titanium
   5.4.1 Profile
   5.4.2 MLCC Electronic Ceramics Business
   5.5 KCM
       5.5.1 Profile
       5.5.2 MLCC Electronic Ceramics Business
   5.6 SFC
       5.6.1 Profile
       5.6.2 Operation
       5.6.3 MLCC Electronic Ceramics Business
   5.7 Toda Kogyo
       5.7.1 Profile
       5.7.2 Operation
       5.7.3 MLCC Electronic Ceramics Business

6. Key Enterprises in China
   6.1 Sinocera
   6.2 Fenghua Advanced Technology
   6.3 PDC
   6.4 Zhongxing Electronic
   6.5 Yuanyang Chemical
   6.6 Auxin Materials
   6.7 Xinji Chemical
• Structure of Multilayer Ceramic Capacitor (MLCC)
• MLCC Electronic Ceramics Industry Chain
• Product Structure of Global Capacitor Market, 2012
• Applied Voltage and Capacitance Value Range of Various Capacitors
• Demand for MLCC Electronic Ceramics in China, 2007-2013
• Demand for MLCC Electronic Ceramics in China, 2014-2017E
• Market Size of Global MLCC Industry, 2007-2013
• China MLCC Sales, 2007-2013
• MLCC Market Size by Segments, 2013
• China MLCC Output, 2008-2013
• MLCC Demand in China, 2007-2013
• Net Import Volume of MLCC in China, 2009-2014
• Average Import/Export Price of MLCC in China, 2009-2014
• China Military MLCC Market Size, 2007-2013
• China Industrial MLCC Market Size, 2007-2013
• China Consumer MLCC Market Size, 2007-2013
• MLCC Demand by Computers in China, 2007-2017E
• MLCC Demand by TV in China, 2007-2017E
• Net Sales of Sakai, FY2012-FY2014
• Operating Income of Sakai, FY2012-FY2014
• Net Income of Sakai, FY2012-FY2014
• Financial Data of Ferro, 2010-2012
• Revenue Structure of Ferro (by Application), 2012
• Revenue Structure of Ferro (by Region), 2012
• Revenue of Ferro's Electronic Materials Division, 2011-2012
Selected Charts

- Revenue and Net Income of NCI, FY2009-FY2013
- Selected Financial Indices of SFC, 2012-2013
- R&D Investment of SFC, 2009-2013
- Revenue of Toda Kogyo, FY2008-FY2013
- Revenue and Net Income of Sinocera, 2009-2013
- Sales and Revenue Contribution of Sinocera’s Top 5 Clients, 2008-2013
- Procurement and Contribution of Sinocera’s Top 5 Supplier, 2008-2013
- Revenue and Net Income of Fenghua Advanced Technology, 2008-2013
- Revenue Breakdown of Fenghua Advanced Technology by Region, 2009-2013
- Revenue and Net Income of PDC, 2009-2013
- Classification and Application of MLCC Electronic Ceramics Materials
- Comparison between Main Barium Titanate Preparation Processes
- Comparison: Performance of Barium Titanate Products from China and Japan
- Performance Comparison between Various Capacitors
- Global Output of MLCC Electronic Ceramics, 2007-2015E
- Global Output of MLCC Electronic Ceramics by Sources, 2007-2015E
- Global Demand for MLCC Electronic Ceramics, 2007-2015E
- Capacity of Major Global MLCC Electronic Ceramics Manufacturers, 2012
- Capacity of Major Japanese MLCC Electronic Ceramics Manufacturers, 2012
- Capacity of Major MLCC Manufacturers in South Korea, 2012
- Capacity of Major Taiwanese MLCC Electronic Ceramics Manufacturers, 2013
- Capacity of MLCC Electronic Ceramics in China, 2007-2013
- Difference between Demand and Supply Capacity of MLCC Electronic Ceramics in China
- Main Products and Capacity of Key MLCC Electronic Ceramics Manufacturers in China, 2015E
• Import Volume, Import Value and Average Import Price of MLCC in China, 2009-2014
• Import Volume and Value of Major Import Sources of China’s MLCC, 2013
• Export Volume, Export Value and Average Export Price of MLCC in China, 2009-2014
• Export Volume and Value of Major Export Destinations of China’s MLCC, 2013
• MLCC Usage of Different Types of Mobile Phones, 2013-2014
• Output of Different Types of Mobile Phones in China, 2008-2017E
• MLCC Demand by Mobile Phones in China (by Product), 2008-2017E
• Output of Various Types of Computers in China, 2008-2017E
• Output of Various Types of TV in China, 2008-2017E
• Development History of Sakai
• Performance Index of Ferro's Barium Titanate Power by Type
• Performance Indices of Barium Titanate Products of NCI
• NCI’s Subsidiaries in China and Their Business, 2012
• Fuji Titanium’s Key Battery Ceramic Products and Applications
• Development Course of KCM
• Performance Indices of KCM’s MLCC Formula Powder Products
• Performance Indices of SFC’s Barium Titanate Powder Materials
• Revenue Structure of Sinocera by Product, 2009-2013
• Revenue Structure of Sinocera by Region, 2009-2013
• Sinocera’s Consolidated Gross Margin and Product Gross Margin, 2009-2013
• Sinocera's Key Projects, 2011-2014
• Output and Sales Volume of Sinocera, 2012-2013
• R&D Costs and % of Total Revenue of Sinocera, 2011-2013
• Revenue Breakdown of Fenghua Advanced Technology by Product, 2009-2013
• Gross Margin of Fenghua Advanced Technology by Product, 2009-2013
• Main Barium Titanate Series of Fenghua Advanced Technology
• Main MLCC Powder Series of Fenghua Advanced Technology
• Sales Volume, Output and Inventory of Main Products of Fenghua Advanced Technology, 2012-2013
• Fenghua Advanced Technology’s Sales from Top 5 Customers and % of Total Sales, 2013
• Fenghua Advanced Technology’s Procurement from Top 5 Suppliers and % of Total Procurement, 2013
• R&D Costs and % of Total Revenue of Fenghua Advanced Technology, 2012-2013
• Revenue Structure of PDC by Product, 2013
• Revenue Structure of PDC by Region, 2011-2013
• Production Volume and Value of PDC by Product, 2012-2013
• Sales Volume and Value of PDC by Product, 2012-2013
• Capacity of Zhongxing Electronic by Product, 2013
• Capacities of Zhongxing Electronic by Product, 2013-2015E
• Performance Index of Yuanyang Chemical’s Barium Titanate Products
• Physical Indicators of Barium Titanate Products of Auxin Materials
• Chemical Indicators of Barium Titanate Products of Auxin Materials
• Capacity of Xinji Chemical by Product, 2013
• Chemical Composition Indicators of Barium Titanate Products of Xinji Chemical
• Chemical Performance Indicators of Barium Titanate Products of Xinji Chemical
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

---

<table>
<thead>
<tr>
<th>Party A:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td></td>
</tr>
<tr>
<td>Address:</td>
<td></td>
</tr>
<tr>
<td>Contact Person:</td>
<td>Tel</td>
</tr>
<tr>
<td>E-mail:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Party B:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td>Beijing Waterwood Technologies Co., Ltd (ResearchInChina)</td>
</tr>
<tr>
<td>Address:</td>
<td>Room 502, Block 3, Tower C, Changyuan Tiandi Building, No. 18, Suzhou Street, Haidian District, Beijing, China 100080</td>
</tr>
<tr>
<td>Contact Person:</td>
<td>Liao Yan</td>
</tr>
<tr>
<td>E-mail:</td>
<td><a href="mailto:report@researchinchina.com">report@researchinchina.com</a></td>
</tr>
</tbody>
</table>

Bank details:
- Beneficial Name: Beijing Waterwood Technologies Co., Ltd
- Bank Name: Bank of Communications, Beijing Branch
- Bank Address: NO.1 jinxiyuan shijicheng,Langlianchang,Haidian District,Beijing
- Bank Account No #: 110060668012015061217
- Routing No #: 332906
- Bank SWIFT Code: COMMCHNBJG

Choose type of format
- PDF (Single user license) ............ 1,600 USD
- Hard copy .............................. 1,700 USD
- PDF (Enterprisewide license) ........ 2,500 USD

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

ResearchInChina (www.researchinchina.com) is a leading independent provider of China business intelligence. Our research is designed to meet the diverse planning and information needs of businesses, institutions, and professional investors worldwide. Our services are used in a variety of ways, including strategic planning, product and sales forecasting, risk and sensitivity management, and as investment research.

Our Major Activities

- Multi-users market reports
- Database-RICDB
- Custom Research
- Company Search

RICDB (http://www.researchinchina.com/data/database.html), is a visible financial data base presented by map and graph covering global and China macroeconomic data, industry data, and company data. It has included nearly 500,000 indices (based on time series), and is continuing to update and increase. The most significant feature of this base is that the vast majority of indices (about 400,000) can be displayed in map.

After purchase of our report, you will be automatically granted to enjoy 2 weeks trial service of RICDB for free.

After trial, you can decide to become our formal member or not. We will try our best to meet your demand. For more information, please find at www.researchinchina.com

For any problems, please contact our service team at:

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