



# Global and China Nano Composite Zirconia Industry Report, 2015

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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

Nano Zirconia, with zirconium dioxide as key ingredient, constitutes nano composite zirconia after being added with rare-earth elements (primarily yttrium oxide) and other oxides. Nano composite zirconia gets widely used in fields like grinding materials, coating, fuel cell, artificial teeth, automobile exhaust catalyst promoter, etc.

As its industrialization is under way for just three decades, nano composite zirconia's applications in only grinding media and oxygen sensor have become mature, while other applicable areas are experiencing a fast growing period and even at the initial stage. In 2014, the global sales volume of nano composite zirconia totaled roughly 40,000 tons, which generated revenue of RMB14 billion. And China's nano composite zirconia market capacity approximated 7,000 tons.

Globally, the nano composite zirconia capacity spreads mainly in Europe and Japan, with the companies with complete industrial layout including Saint-Gobain, Tosoh, and DKKK. In addition, the players like Showa Denko, Solvay, and Sumitomo Osaka Cement occupy an important position in some market segments.

### Global Nano Composite Zirconia Enterprises

Enterprises	Estimated Capacity (t/a)	Characteristics	Brand	Production Bases
 Saint-Gobain	5000	Comprehensive	CZ, CZE, CYZ series	Le Pontet, Southof France; Handan, China
 DKKK	5000	Comprehensive layout, especially in oxygen sensor and catalyst	HSY series	Gotsu Factory and Fukui Factory in Japan
 Tosoh	5000	Comprehensive layout, especially in dental material	TZ series	Yamaguchi and Yokkaichi
 Solvay	1000	Oxygen sensor and ceria-zirconia solid solution	Actalys®, OPtals®	China (Liyang, Jiangsu and Baotou, Inner Mongolia), Japan, Europe, and USA.
 Sumitomo Osaka Cement	Hundreds	Optical plug and dispersion liquid	SUMICEFINE	Tokyo, Japan
 Showa Denko	Hundreds	-	-	Japan
 Sinocera	200	Comprehensive layout	-	Dongying, Shandong
 Jiujiu	-	Comprehensive layout	-	Rudong county, Nantong, Jiangsu

Source: Global and China Nano Composite Zirconia Industry Report, 2015 by ResearchInChina

Domestically, only Sinocera and Jiujiujiu were the first to make technological breakthroughs and began pilot production. Sinocera's scale of pilot production totaled 200t/a. In the first half of 2014, its nano composite zirconia segment contributed revenue of RMB4.809 million, versus the operating cost of RMB2.961 million. Additionally, the company announced a 1,500 t/a expansion plan, according to which the products (700 tons) from the first phase of the project would be very likely released in the second quarter of 2015.

Jiujiujiu has developed the about 10nm, 20nm, 40nm, and 80nm series of nano composite zirconium dioxide powder. At present, the company's pilot project is in trial production.

Global and China Nano Composite Zirconia Industry Report, 2015 mainly covers the following:

- ⇒ Industrial chain, manufacturing technology, and cost structure of nano composite zirconia;
- ⇒ Market size of nano composite zirconia in China and beyond, applications in market segments, as well as layout and profitability of major enterprises;
- ⇒ Top 10 applications of nano composite zirconia, including the demand of the industry development for nano composite zirconia;
- ⇒ 6 global and 3 Chinese key enterprises, involving operation and revenue structure, nano composite zirconia products and business layout, development strategy, and development in China, etc.

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