



**Global and China MO (Metal Organic) Source
Industry Report, 2011-2012**

Aug. 2012

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 Solid State Lighting Alliance, WIND data base and China Custom etc.

Abstract

Metal Organic (MO) source products are mainly applied to the manufacturing of LED epitaxial wafers. After 2009, the rapid growth of the global LED industry has promoted the demand for MO source, which reached 44.8 tons in 2011, an increase of 77.1% year on year. In the same period, due to high technical threshold of MO source industry, the speed of capacity expansion has been limited, as a result, the global MO source market witnessed an ever-increasing demand-supply gap for three consecutive years in 2009-2011. In particular, with the widest demand-supply gap among a number of MO source products, trimethyl gallium (TMG) has become an investment highlight in the industry.

In 2011, Taiwan and South Korea became new MO source production bases following the United States, Europe and Japan. This is mainly because, Taiwan and South Korea are currently the most important production bases of the global LED industry, and account for a large share in the manufacturing of epitaxial wafers and chips in the upstream of the industry chain, so they have become the largest consumer markets of MO source products. At the same time, Taiwan and South Korea lack native MO source manufacturers, and need to import most products from Europe and the United States, resulting in intensified regional conflict between supply and demand. At present, Kaohsiung and Taoyuan of Taiwan as well as Cheonan and Yeosu of South Korea are popular investment regions of MO source industry.

In 2011, the mainland Chinese LED industry chain was increasingly perfect, the LED chip and epitaxial wafer industry developed rapidly, and the number of newly added MOCVD machines reached 350 units, accounting for 42% of global newly added MOCVD machines.

Global Demand for MO Source, 2006-2012 (Unit: ton)



Source: ResearchInChina <Global and China MO (Metal Organic) Source Industry Report, 2011-2012>

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In addition to the development of MO source industry in China and worldwide, this Report focuses on the MO source business development of seven foreign enterprises including Dow, SAFC Hitech, AKZO Nobel, Sumitomo, Albemarle, Chemtura as well as Chinese enterprise Jiangsu Nata Opto-electronic Material Co., Ltd.

Dow is the world's most important provider of MO source products. It announced a capacity expansion plan in June 2010 to build a new plant in South Korea while expanding capacity in the United States, which will be put into production in 2012. Its long-term MO source capacity will reach 60 tons/year.

AKZO Nobel is a Dutch enterprise with production base in the United States. It doubled the capacity of its Tennessee production base in June 2010, and announced to double the TMG capacity in November 2010, which is currently under construction. Moreover, it plans to set up an MO source production base in Ningbo. Its long-term capacity will be 100 tons/year.

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Jiangsu Nata Opto-electronic Material Co., Ltd. is China's only enterprise bringing commercial production of MO source into reality. In 2011, its total capacity of MO source products reached 6.5 tons/year, including a TMG capacity of 5.5 tons/year. Its long-term MO source capacity will be 22.5 tons/year.

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