

## 2018 Top 5 Lithium Tantalate Crystal Players in North America, Europe, Asia-Pacific, South America, Middle East and Africa

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### Abstracts

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Lithium tantalate (LiTaO3, LT) crystal is an important ferroelectric material. It has both chemical and mechanical stability as well as a high optical damage threshold. Lithium tantalate exhibits unique electro-optical, pyroelectric and piezoelectric properties combined with good mechanical and chemical stability and wide transparency range and high optical damage threshold. This makes LiTaO3 well-suited for numerous applications including electro-optical modulators, pyroelectric detectors, optical waveguide and SAW substrates, piezoelectric transducers etc.

Lithium tantalate crystal it has excellent piezoelectric electromechanical coupling coefficient, low loss, and high temperature stability, and good high-frequency performance, electro-optical and thermoelectric properties. With the rapid development of communications, information industry development and industrialization of new optoelectronic materials, downstream demand for lithium tantalate crystal keeps increasing.

At present, in developed countries, the lithium tantalate crystal industry is generally at a more advanced level. The world's large enterprises are mainly concentrated in Japan. Meanwhile, foreign companies have more advanced equipment, strong R & D capability, and leading technical level. However, foreign companies' manufacturing cost is relatively higher, compared with Chinese companies. With the development of Chinese lithium tantalate crystal production technology, their share in the international market is increasing, and competitiveness in the international market gradually increases.

Lithium tantalite (LiTaO3) is similar to lithium niobate. Both are grown by the czochralski method which yields large, high quality single crystals. Lithium tantalate possesses



unique electro-optical, acoustic, piezoelectric and pyroelectric properties, which makes it attractive for numerous applications including electro-optical modulators, pyroelectric detectors, piezoelectric transducers and sensors. It has good mechanical and chemical stability, a wide transparency range and a high optical damage threshold. With the development of 4G LTE, the demand for saw filter will keep on growing in the future, which will promote the demand for lithium tantalate crystal.

Over the next five years, LPI(LP Information) projects that Lithium Tantalate Crystal will register a 2.3% CAGR in terms of revenue, reach US\$ 190 million by 2023, from US\$ 170 million in 2017.

This report studies the global market, especially in North America, Europe, Asia-Pacific, South America, Middle East and Africa, focuses on the top 5 players in each region, with sales, price, revenue and market share from 2013 to 2018, the top players:

Sumitomo Metal Mining Shin-Etsu Chemical Orient Tantalum Industry Oxide Corporation Korth Kristalle SIOM Castech CETC Crystalwise Shanghai Dongcheng Electronic Materials United Crystal

Dayoptics



Market Segment by Regions, this report splits Global into several key Regions, with sales, revenue, market share of top players in these regions, from 2013 to 2018 (forecast), like

North America (United States, Canada and Mexico)

Asia-Pacific (China, Japan, Southeast Asia, India and Korea)

Europe (Germany, UK, France, Italy and Russia etc.)

South America (Brazil, Chile, Peru and Argentina)

Middle East and Africa (Egypt, South Africa, Saudi Arabia)

Split by Product Types, with sales, revenue, price, market share of each type, can be divided into

Acoustic Grade

Optical Grade

Other

Split by applications, this report focuses on sales, market share and growth rate in each application, can be divided into

Surface Acoustic Wave

**Electro-Optical** 

Piezoelectric Transducers

Pyroelectric

Other



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