



March 7, 2018

NEWS RELEASE

## **Nippon Yttrium Enhances Production Capacity of Protective Material for Semiconductor Manufacturing Equipment**

**- Increasing the production capacity of yttrium compound to about 2.5 times -**

Mitsui Mining & Smelting Co., Ltd. (President and Representative Director: Keiji Nishida; hereinafter “Mitsui Kinzoku”) is pleased to announce that Nippon Yttrium Co., Ltd. (President and Representative Director: Yoshiteru Domoto, hereinafter “NYC”), a subsidiary of Mitsui Kinzoku and TOKIN Corporation (Representative Director and President: Shigenori Oyama), has decided to enhance the production capacity of protective material for semiconductor manufacturing equipment by a factor of about 2.5.

NYC is a leader in rare earth metals, which achieved the mass production of high purity rare earth products ahead of its competitors in Japan and manufactures and sells rare earth metals that are used for semiconductors and other applications.

The semiconductor market is growing significantly thanks to strong demand for IoT, smartphones, and ADAS (in the automotive field). This trend is expected to continue in the future.

To further advance microfabrication, high integration, and high production of semiconductors, reduced contamination (foreign materials and impurities such as dust and pollutants) is strongly required, and the research and development of protective material is beginning to shift from oxide-based yttrium to fluoride-based yttrium.

To respond to these demands, taking advantage of the knowledge of rare earth metals it has cultivated over the years, NYC has developed and released fluoride and oxyfluoride of yttrium for protective material. Expecting rising demand in the semiconductor market, NYC plans to enhance its facilities gradually to increase its capacity to 2.5 times the current capacity by the second half of 2018.

Under the Mitsui Kinzoku Group’s slogan, “Taking full advantage of Material Intelligence,” making use of expertise in rare earth metals accumulated over half a century, we will develop products to meet customers’ needs and secure stable quality and a sufficient supply.

[Inquiries]

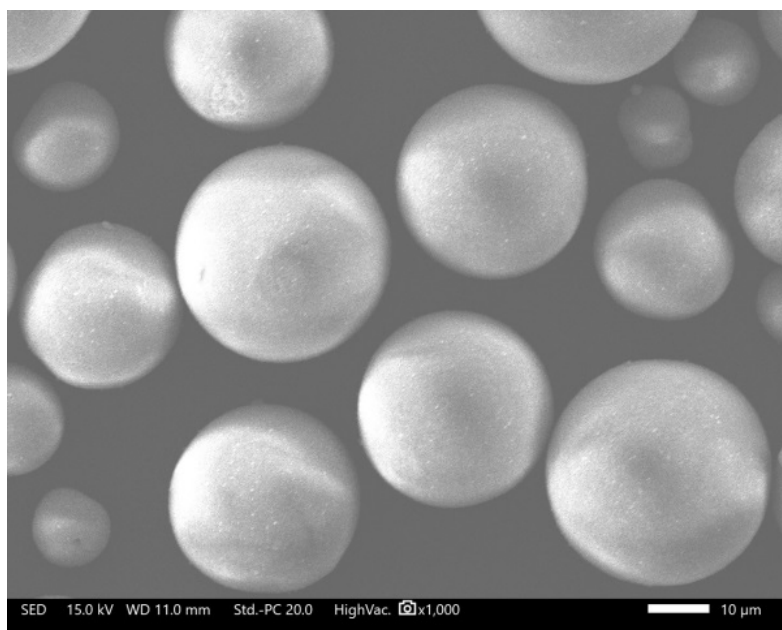
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(Reference)



SEM photograph: protective material of fluoride-based yttrium

[Profile of Nippon Yttrium Co., Ltd.]

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|--------------------------------|---|
| (1) Headquarters               | : Omuta City, Fukuoka Prefecture                            |
| (2) Establishment              | : April 1966  |
| (3) Capital/Contribution ratio | : 400 million yen/Mitsui Kinzoku 70%, TOKIN Corporation 30% |
| (4) Number of employees        | : 77 (as of December 2017)                                  |
| (5) Business description       | : Manufacturing and sales of rare earth metals              |