

September 25, 2014

Tanaka Precious Metals
Tanaka Holdings Co., Ltd.

TANAKA to Have Exhibit at glasstec 2014

The company will make its first showing of Oxide Dispersion Strengthened (ODS) platinum materials and technology for preventing platinum volatilization with the aim of expanding to Europe with its platinum processing technology for glass melting boasting the leading share in Asia



<Image of exhibit booth>

Tanaka Holdings Co., Ltd. (a company of Tanaka Precious Metals; Head office: Marunouchi, Chiyoda-ku, Tokyo; President & CEO: Akira Tanae) announced today that Tanaka Kikinokogyo K.K. (Head office: Marunouchi, Chiyoda-ku, Tokyo; President & CEO: President Akira Tanae), which operates the Tanaka Precious Metals' manufacturing business, will have an exhibit at glasstec 2014; INTERNATIONAL TRADE FAIR FOR GLASS PRODUCTION, PROCESSING, PRODUCTS, one of the world's largest glass manufacturing and processing equipment exhibitions, which will be held in Düsseldorf, Germany from October 21 (Tue) to 24 (Fri), 2014.

Tanaka Kikinokogyo provides platinum materials used in glass melting that are able to withstand harsh operating conditions to a variety of high-grade glass manufacturers including those of LCD glass substrates and optical lenses. The company manufactures items processed to match customers' requirements, and has obtained the leading share in the Asian market. At glasstec 2014, the Company will exhibit its Oxide Dispersion Strengthened (ODS) platinum materials using zirconia (ZrO_2) for the first time, and illustrate its track record of contributing to lengthening the operating life of equipment by reducing the deformation of platinum equipment and parts used in the manufacture of glass under high temperatures. With this exhibit at glasstec 2014, Tanaka Kikinokogyo aims to expand its sales channels in European and American markets, where demand for the company's products is expected to increase for applications such as the manufacture of optical glass and crystal glass.

[Overview of glasstec 2014 booth]

- Dates: October 21 (Tue) to 24 (Fri), 2014
- Venue: Düsseldorf Fairgrounds Hall 9 - 17 and outdoor exhibition space
 - * Tanaka Kikinokogyo's booth: Hall 11, Stand H74
- Contents of Exhibit:
 1. "nanoplat™ Series" Oxide Dispersion Strengthened (ODS) platinum materials
 2. Proposal of specifications matching customers' requirements using simulation software
 3. ZrO_2 (zirconia) coating
 4. Platinum laboratory tools
 5. Bushings for glass fiber fabrication

[Details of Tanaka Kikinzoku Kogyo's Exhibit]

1. “nanoplat™ Series” Oxide Dispersion Strengthened Platinum Materials

Five types of Oxide Dispersion Strengthened (ODS) platinum materials with different structures and strengths will be on display. These are **nanoplat™Pt**, **nanoplat™R**, **nanoplat™BP**, **nanoplat™BPR** and **nanoplat™PtAu5**. In all of these, the particle size of Oxide (ZrO_2) is decreased and processes are optimized to offer high creep strength* at high temperature and grain growth control.

2. Computer aided fluid and structural calculations

We perform computer aided fluid and structural calculations using customers' data on glass operating conditions to propose improvements to customers' existing equipment. It includes proposals for the ideal shape to improve the stirring effectiveness of stirrer vanes, and proposals on extending the operating life by strengthening areas that are susceptible to cracking.

3. Zirconia coating

We offer solutions matching customers' specifications by using zirconia coating to prevent platinum volatilization when platinum equipment is used in high temperatures. This exhibit will be the first time this technology has been put on display.

4. Platinum laboratory tools

Our booth will include a display of platinum laboratory tools like small crucibles, evaporating dishes, bead dishes and tongs used in the development of new glass compositions and quality control. In particular, “**nanoplat™PtAu5**” which has low wettability to glass enables easy removal of analysis specimens and is widely used in bead dishes for creating fluorescent X-ray samples. And there is little contamination caused by residual analysis samples due to its excellent draining property.



5. Bushings for glass fiber fabrication

We will also display how using “**nanoplat™BPR**” on the base plate enables bushings to be used for longer periods than existing products while also minimizing the reduction in manufacturing yield caused by distortion.

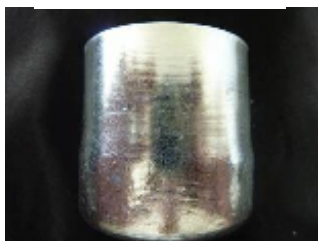
* Creep strength:

The stress when a designated creep occurs within a certain period. Creep is a phenomenon in which a material is deformed over time when a fixed amount of stress is applied under a constant temperature.

Reference: Deformation Tolerance of Strengthened Platinum

Lithium niobate was placed in self-contained small crucibles and melting and solidification were repeated to compare the deformation of the crucibles.

<Cast platinum>

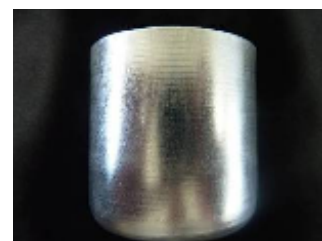


10 cycles



100 cycles

<Strengthened platinum>



10 cycles



100 cycles

■Tanaka Holdings Co., Ltd. (Holding company of Tanaka Precious Metals)

Headquarters: 22F, Tokyo Building, 2-7-3 Marunouchi, Chiyoda-ku, Tokyo

Representative: Akira Tanae, President & CEO

Founded: 1885

Incorporated: 1918

Capital: 500 million yen

Employees in consolidated group: 3,562 (FY2013)

Net sales of consolidated group: 967.6 billion yen (FY2013)

Main businesses of the group:

Manufacture, sales, import and export of precious metals (platinum, gold, silver, and others) and various types of industrial precious metals products. Recycling and refining of precious metals.

Website: <http://www.tanaka.co.jp/english> (Tanaka Precious Metals),

<http://pro.tanaka.co.jp/en> (Industrial products)

■Tanaka Kikinzoku Kogyo K.K.

Headquarters: 22F, Tokyo Building, 2-7-3 Marunouchi, Chiyoda-ku, Tokyo

Representative: Akira Tanae, President & CEO

Founded: 1885

Incorporated: 1918

Capital: 500 million yen

Employees: 1,430 (FY2013)

Sales: 929 billion 60 million yen (FY2013)

Main businesses:

Manufacture, sales, import and export of precious metals (platinum, gold, silver, and others) and various types of industrial precious metals products. Recycling and refining of precious metals.

Website: <http://pro.tanaka.co.jp/en>

<About the Tanaka Precious Metals>

Established in 1885, the Tanaka Precious Metals has built a diversified range of business activities focused on the use of precious metals. On April 1, 2010, the group was reorganized with Tanaka Holdings Co., Ltd. as the holding company (parent company) of the Tanaka Precious Metals. In addition to strengthening corporate governance, the company aims to improve overall service to customers by ensuring efficient management and dynamic execution of operations. Tanaka Precious Metals is committed, as a specialist corporate entity, to providing a diverse range of products through cooperation among group companies.

Tanaka Precious Metals is in the top class in Japan in terms of the volume of precious metal handled, and for many years the group has developed and stably supplied industrial precious metals, in addition to providing accessories and savings commodities utilizing precious metals. As precious metal professionals, the Group will continue to contribute to enriching people's lives in the future.

The eight core companies in the Tanaka Precious Metals are as follows.

- Tanaka Holdings Co., Ltd. (pure holding company)
- Tanaka Kikinzoku Hanbai K.K.
- Tanaka Denshi Kogyo K.K.
- Tanaka Kikinzoku Jewelry K.K.
- Tanaka Kikinzoku Kogyo K.K.
- Tanaka Kikinzoku International K.K.
- Electroplating Engineers of Japan, Limited
- Tanaka Kikinzoku Business Service K.K.