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## Tanaka Precious Metals Constructs Dedicated Plant for the Development and Manufacture of Fuel Cell Catalysts

Positioned as a mother plant of fuel cell catalysts manufacturing to meet the increasing demand for fuel cell vehicles and distributed power supplies such as “ENE-FARM”

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Tanaka Holdings Co., Ltd. (a company of Tanaka Precious Metals, Head office: Chiyoda-ku, Tokyo; President & CEO: Hideya Okamoto) today announced that Tanaka Kikinzoku Kogyo K.K. (Head office: Chiyoda-ku, Tokyo; President & CEO: Hideya Okamoto) of Tanaka Precious Metals, which boasts the world’s leading share in fuel cell catalysts constructs a dedicated plant for fuel cell catalysts within the premises of the Shonan Plant (Hiratsuka-shi, Kanagawa).

With an investment of approximately 1 billion yen, a dedicated plant with total floor space of 1,000 square meters within the Shonan Plant is newly established, and currently, the merging and relocation of the fuel cell catalyst R&D, product inspection and shipment functions currently in the Hiratsuka Technical Center (Hiratsuka-shi, Kanagawa) and the manufacturing functions in the Shonan Plant into the dedicated plant is carrying out. This will enable further strengthening of the organization for developing and manufacturing fuel cell catalysts, and positioning it as a mother plant for expanding the plant to match increased demand for catalysts expected in the future will make it possible to quickly and flexibly increase production capacity. The dedicated plant is scheduled to complete in March 2013, and functions will be transferred in phases and expected in full operation in October 2013.

In the dedicated plant, the polymer electrolyte membrane fuel cells (PEFCs) used in fuel cell vehicles (FCVs) and distributed cogeneration power supplies such as “ENE-FARM” household fuel cells will be developed and manufactured. PEFCs are expected to be an environmentally friendly and new energy utilization technology that uses the chemical reaction between hydrogen and oxygen to generate high power output despite being compact and lightweight. Tanaka Kikinzoku Kogyo will combine the precious metal catalyst technology and electrochemical technology that the company has been cultivating over many years to develop highly active platinum catalyst used in PEFCs cathodes (air electrodes) and platinum alloy catalyst with excellent resistance to the poisoning of carbon monoxide (CO) used in PEFCs anodes (fuel electrodes).



PEFCs electrode catalyst

At present, automobile manufacturers are conducting R&D aimed at practical application ahead of 2015 which is the target for the commencement of widespread FCVs introduction, and demand for catalysts used in automobiles is expected to increase in the future. Furthermore, since the “ENE-FARM” was released in 2009, the market has expanded rapidly<sup>(\*)</sup> and the demand for household catalysts use is expected to increase. In response to such market movements, Tanaka Kikinzoku Kogyo judged that it would be unable to scale manufacturing in the future under the existing catalyst manufacturing organization, therefore decided to construct a dedicated plant.

The company will continue to focus on research and development with the aim of making high durable fuel cell catalysts, and reducing the platinum consumption by providing greater performance. By establishing a division for the development and manufacture of catalysts in April 2013 and endeavoring towards cost reduction through efforts of process improvement, in order to further expand the fuel cell business. Moreover, the company will make full use of the recycling technology of platinum which is a scarce resource, and provide comprehensive support towards the spread of fuel cells.

The Company has scheduled to display its PEFCs electrode catalyst at FC EXPO 2013, the 9th International Hydrogen & Fuel Cell Expo located at Tokyo Big Sight (Koto-ku, Tokyo) over three days from February 27 (Wed) until March 1 (Fri). Technical staff will constantly be on-site in the exhibit booth (West Hall 4 w45-61) to respond to interviews.

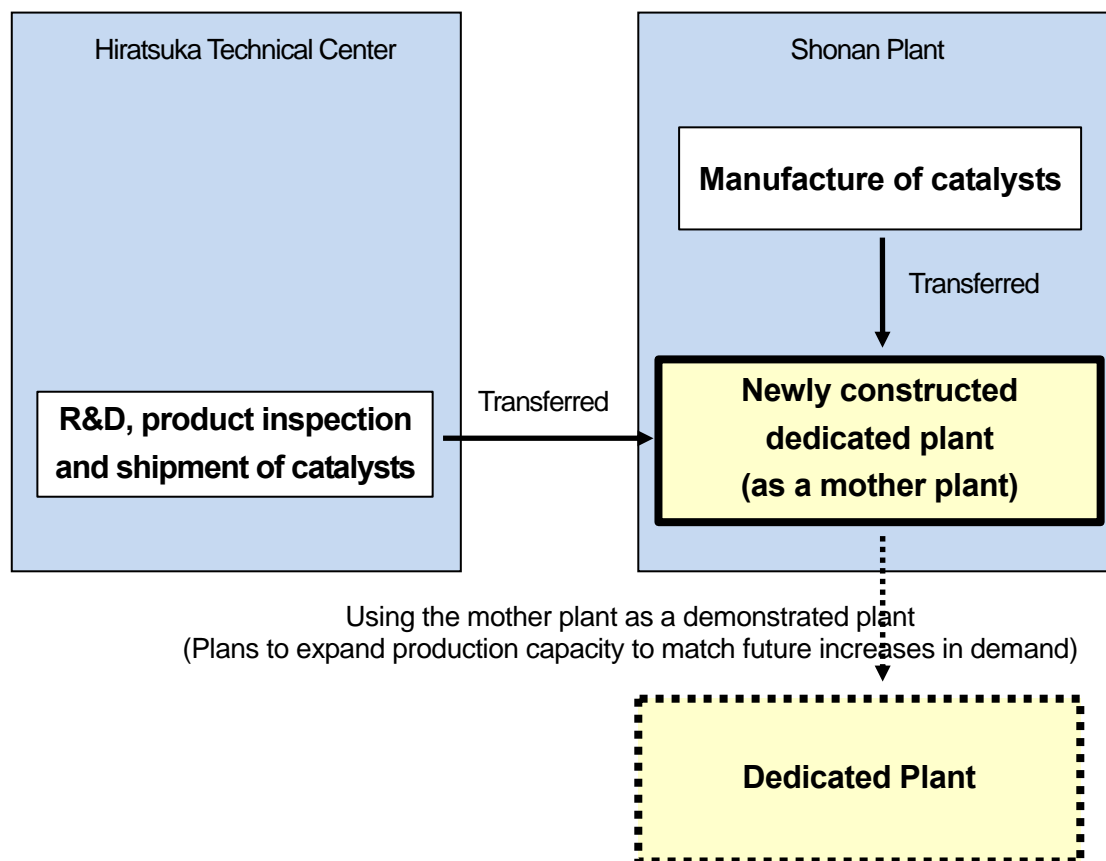
[Overview of the Dedicated Fuel Cell Catalyst Plant]

- Location: Within the premises of the Tanaka Kikinzoku Kogyo K.K. Shonan Plant (Hiratsuka-shi, Kanagawa)
- Total floor space: 1,000 square meters (1 floor)
- Business content: R&D, manufacture, product inspection and shipment of electrode catalysts used in polymer electrolyte membrane fuel cells (PEFCs)
- Notes: Scheduled for completion in March 2013 and planned full-scale operation in October 2013



Dedicated Plant Image

[Conceptual Diagram of the Dedicated Fuel Cell Catalyst Plant]



(\*) Under the national government's subsidy program for partially covering the cost of purchasing "ENE-FARM" units, 5,030 units were granted subsidies in FY2009, 4,985 were granted subsidies in FY2010, and applications for 18,067 units were filed in FY2011 (tabulated for the entire year until April 4). At present, applications have been received for 14,806 units in FY2012 as of December 13, 2012. (Data from the Fuel Cell Association)

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

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

Representative: Hideya Okamoto, President & CEO

Founded: 1885

Incorporated: 1918

Capital: 500 million yen

Employees in consolidated group: 3,869 (FY2011)

Net sales of consolidated group: 1.064 trillion yen (FY2011)

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 Kikinzoku Kogyo K.K.**

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

Representative: Hideya Okamoto, President & CEO

Founded: 1885

Incorporated: 1918

Capital: 500 million yen

Employees: 1,663 (FY2011)

Sales: 1.036 trillion yen (FY2011)

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.