

Tanaka Showcases Globally Recognized Metal Analysis Techniques

Given that the yield of precious metals with excellent characteristics is small, precious metals are extremely precious resource. Tanaka Kikinzoku Kogyo offers these precious resources as industrial products. At the same time, the company believes that it has an important responsibility in recovering precious metals from scrap and returning them to the market through recycling.

Analyzing the purity of precious metals is synonymous to determining the quality of such materials, thus helping traders make a good judgment of the metal's actual value.

Tanaka Kikinzoku Kogyo tucks under its belt globally recognized evaluation techniques that promote the delivery of no less than quality metals for industrial production. Tanaka is the only ac-

credited Good Delivery Referee in Japan for after-mentioned London Bullion Market Association (LBMA) and London Platinum and Palladium Market (LPPM) that assess precious metal refiners to ensure the quality of globally marketed precious metals. This recognition proves that it possesses world-class technologies required to assess producers around the world; it takes responsibility of ensuring the quality of gold and silver (LBMA), and platinum and palladium (LPPM) throughout the world, and it can be relied upon, being the only such Good Delivery Referee in Japan and one of five in the world.

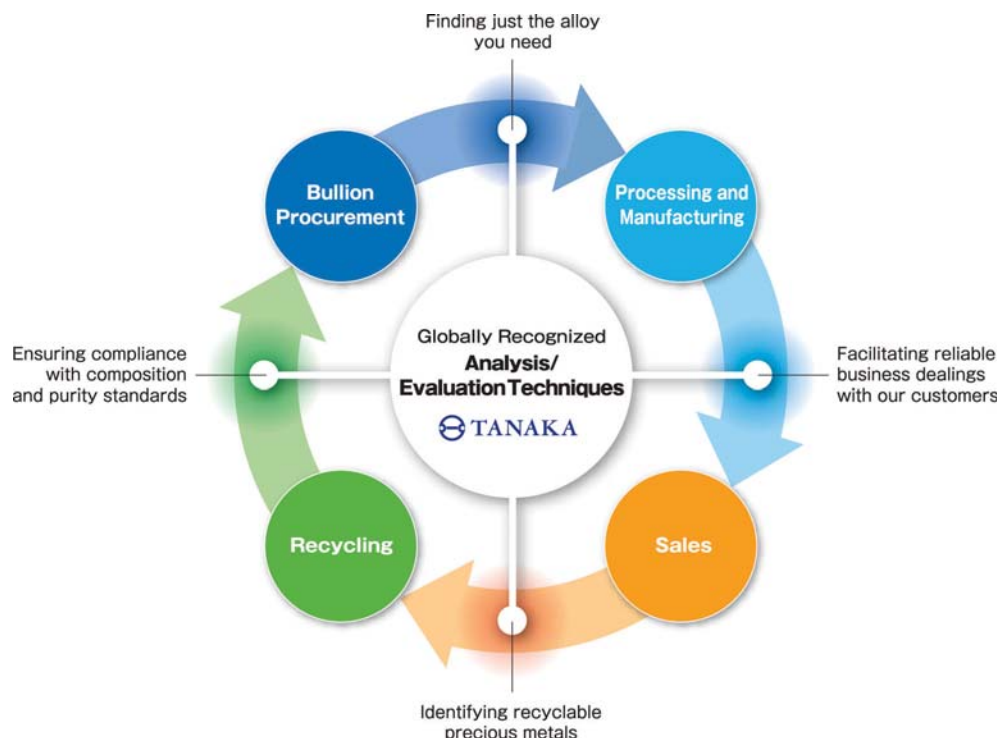
Tanaka also produces analytical reference samples for solid emission spectrometry, which serves as a global standard for the precious metal industry.

Analysis Techniques

To get the stamp of confidence from its customers, Tanaka employs various kinds of analysis technologies for precious metals based on the specific purpose.



Gold bar with 99.99% purity



Tanaka is the only Good Delivery Referee in Japan and one of five in the world.

Fire assay

The fire assay is a special method used to analyze the purity of gold and is conducted by skilled assayers for accurate evaluation.

Gravimetric analysis

In gravimetric analysis, chemical reaction is used to separate gold or platinum from samples after liquefaction, thus enabling the weight of the particular precious metal to be directly measured. This long-established method requires great care, but offers a high degree of accuracy.

Instrumental analysis

In this process, an instrument is used to take simultaneous measurements of an analytical sample and a reference substance with a known concentration in order to obtain assay values. From a variety of analytical instruments for inductively coupled plasma-optical emission spectrometry (ICP-OES), x-ray fluorescence spectrometry, atomic absorption spectrometry, and glow discharge mass spectrometry, among others, the most suitable one is selected depending on the purpose to be able to conduct quick and accurate analysis.

International Accreditation

In 2003, Tanaka was accredited as Good Delivery Referee for gold and silver by the London Bullion Market Association (LBMA). As a Good Delivery Referee, the company assesses gold and silver melting technologies and analytical skills of all accredited gold and silver refiners, and accredits new refiners.

In April 2009, Tanaka was appointed as Good Delivery Referee for the London Platinum and Palladium Market and is one of only five refer-



Tanaka offers world-class analysis techniques for precious metal refiners.



THE LONDON
PLATINUM
& PALLADIUM
MARKET

ees in the world at present.

At the Planning and Development Office of the TKG Laboratory Center, Tanaka has received the ISO/IEC 17025 accreditation for gold analysis technology. The accreditation encompasses the simultaneous analysis of metals (36 elements) in gold bullion using an ICP-OES based on JIS H 6310 and JIS K 0116 standards. More recently, the center acquired an ISO/IEC 17025:2005 accreditation for platinum and palladium analysis technology, making it the first company in Japan to get the accreditation.

Building Partnerships

At the start of 2011, Tanaka partnered with Japan Mint to develop a silver analysis technology. Japan Mint contributes to the protection of consumers by analyzing and guaranteeing Precious Metal Wares in Japan. Japan Mint is the country's only official issuer of Fineness Certification and Mint Certification Marks of Precious Metals Wares. In addition, it also analyzes coins containing gold and silver.

The joint development aims to demonstrate the validity of an analysis method and to strengthen an individual analysis technology each company possesses by exchanging technical information and sharing experimental data.

Specifically, Tanaka will develop an analysis technology for 24 key elements, which should be analyzed as impurities in silver to analyze high-purity silver used in industrial products, while Japan Mint will develop an analysis technology for measuring purity of silver itself to analyze silver used in commemorative coins and silver alloys used in various ornaments. □



Green Technology

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Au

For the development of green technologies used in the home, the office, and even the further reaches of space, TANAKA continues to unlock the full potential of precious metals.



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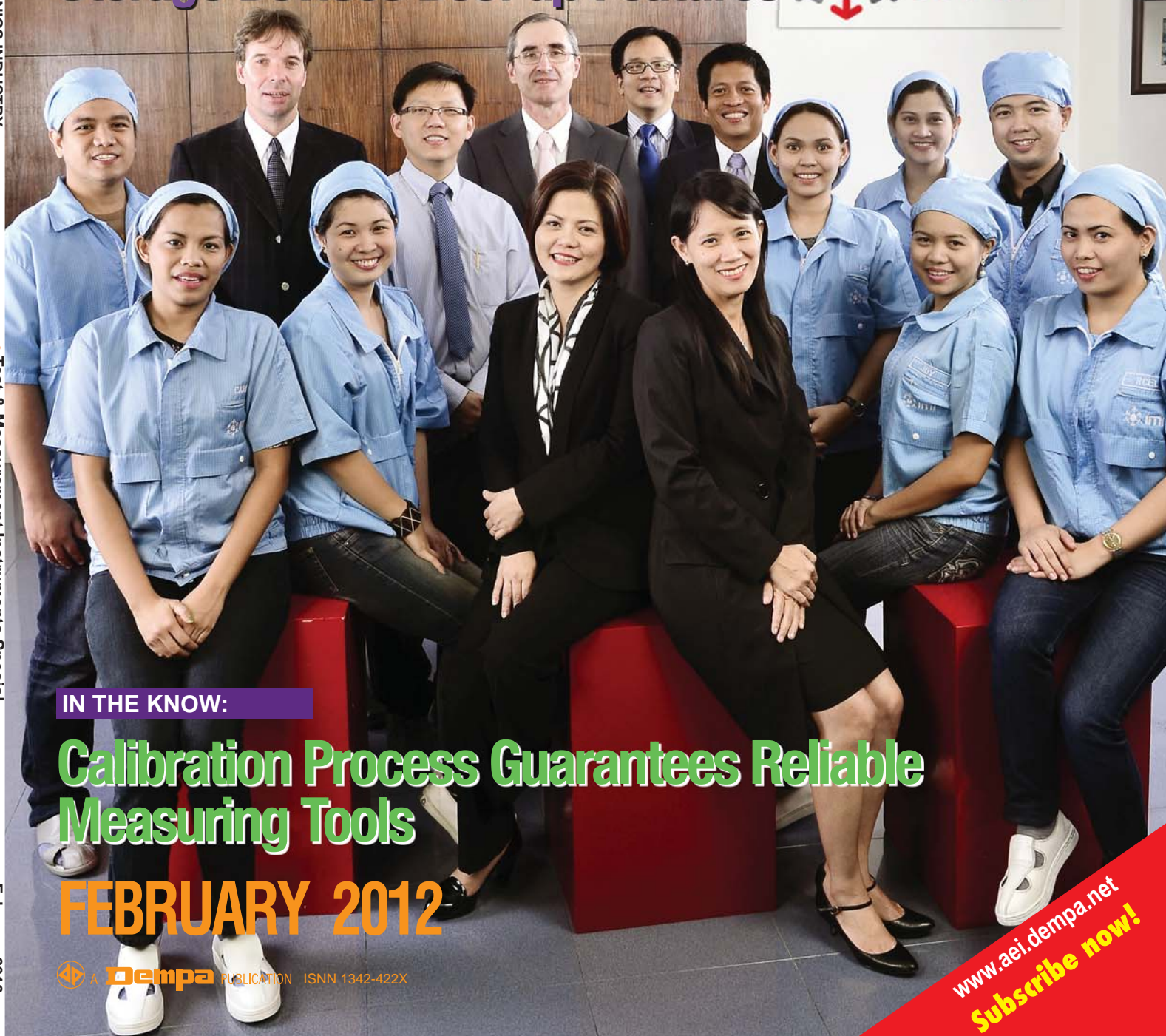


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