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# Launch of an X-Ray Fluorescence Analyzer for Hazardous Substances: The EA1000VX Greatly improved inspection efficiency through higher measurement speed and various new functions

Hitachi High-Tech Science Corporation announces the development and worldwide release of the EA1000VX on September 10th, 2013. The improved X-ray analyzer enables fast and simple screening of hazardous substances (regulated by European Union directives such as ELV, WEEE, and RoHS) in automobiles and electrical/electronic devices.



EA1000VX

Shorter inspection time and better operability have been demanded for X-ray analyzers due to EU directives such as ELV, WEEE, and RoHS which require large number of samples to be inspected. Leading industrial countries such as Japan, the US, China, and South Korea are committed to compliance with the RoHS directive (2002/95/EC) taken effect in July 2006. The revised RoHS directive (2011/65/EU) came into force in July 2011, and applied to medical devices and electronic and electrical tools in July 2014. This revision will even accelerate the need for improved X-ray analyzers.

To supply the demand, measurement time of the EA1000VX is reduced to one-tenth of its former model, resulting in significantly increased throughput (inspection throughput per hour). Improved automatic sample material determination function automatically selects measurement conditions depending on the sample matrix. Consequently it will help users avoid making errors. In addition, this analyzer reduces workload by improved measurement spot positioning system for small or uneven surface samples, and newly designed doors. Furthermore, enhanced analytical tools and centralized data management function increase operational efficiency. These features improve overall efficiency of screening and reduce costs considerably.

The EA1000VX will be exhibited at Japan Analytical and Scientific Instruments Show 2013 (JASIS 2013) held at Makuhari Messe from September 4th to 6th.

#### **Key Features**

- High speed measurement
  - Measurement time using the EA1000VX is one tenth compared to the conventional model SEA1000AII. (mean time when measuring plastics and brasses)
- Automatic measurement using sample material determination function

  The instrument automatically determines sample materials and measures the sample.
- Data and trend management using our controlled substances measurement software Ver.2

  Data measured using one or more than one instrument can be controlled by single software. This software enables users to compare and manage a trend of sample data, and provides a table of results.
- Available for hazardous substances other than RoHS restricted elements(Cd, Pb, Hg, Br, and Cr) The newly developed system can control Chlorine (Cl), antimony (Sb) and tin (Sn).

**Key Specifications** 

Measurement Principle	Energy-dispersive X-ray fluorescence
Measurement Elements	Atomic Number Al (Z=13) – U(Z=92)
Detector	Vortex Si semiconductor detector (LN2 not required)
Performance	
(Measurement Time of	Approximately 30sec
Cd, Pb, Hg, Br, and Cr in Plastics)*	
Chamber Size	W370 x D320 x H120 mm
Dimensions	W520 x D600 x H445 mm
Weight	Approximately 60kg

<sup>\*</sup>This is an example of a test result under Hitachi High-Tech Science's measurement condition.

### About Hitachi High-Tech Science Corporation

Hitachi High-Tech Science is a subsidiary wholly owned by Hitachi High-Technologies Corporation (TOKYO: 8036). The company develops, manufactures and sells measurement and analysis instruments. For additional information, visit: http://www.hitachi-hitec-science.com/en/index.shtml

#### Product website

http://www.hitachi-hitec-science.com/en/products/xrf/EA1000VX.html

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