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Shimadzu launches new ICPMS

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Shimadzu, one of the world's fastest growing mass spectrometry companies, announced the introduction of the Shimadzu ICPMS-2030 Inductively Coupled Plasma Mass Spectrometer. The new ICPMS-2030 is designed to respond to the ICH (International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use) Q3D guidelines for elemental impurities in pharmaceutical products.

The ICH Q3D specifies allowable limits of daily intake of 24 elements of toxicological concern, and requires high sensitive and high precision measurement of such elements. The ICPMS-2030 satisfies these requirements with ppt level high sensitivity, which is achieved by newly developed collision cell and optimized internal structure, offering FDA 21 CFR Part 11 compliance, automated analytical method development function, and unique measurement result evaluation function to provide analytical results with exceptionally high reliability.

US pharmacopoeia indicates limits of elemental impurities (USP < 232>) and detection technique by ICP-MS (USP < 233>), which will be in effect in January 2018. In USP < 735>, X-ray Fluorescence Spectrometry is adopted as general analytical method. For those demands, Shimadzu offers total solution for elemental impurities analysis from screening without sample preparation by the EDX-7000/8000, FDA 21 CFR Part 11 compliant Energy Dispersive X-ray Fluorescence Spectrometers, to high-sensitive and precision analysis by the ICPMS-2030.

The ICPMS-2030 will be exhibited at PITTCON 2016 from March 6th to 10th in Atlanta, GA, USA.

Features:
Designed for High Sensitivity and Easy Maintenance
The optimized internal structure including the newly-developed collision cell enables analysis at sub-ppt level sensitivity by minimized spectral interference and improved transmission efficiency of atomic ions, so that precise quantitation results in elemental impurity analysis become more reliable. The sample injection unit and interface unit where ionized atoms go

through can be easily removed for maintenance so that stable analysis for longer period can be ensured.

Simplified Analysis and Higher Data Reliability by Assistant Functions and LabSolutions Software
In ICP-MS analysis, conventionally users needed to be skillful and to spend a long time to find the ions that interfere with spectra, select the optimum mass number of the elements to be measured, and determine the calibration curve sample concentration.

Using the "Development Assistant" function, users can simply perform qualitative analysis by selecting the elements to be measured. The software then automatically sets the suitable analysis conditions. When performing routine analysis, "Diagnosis Assistant" automatically checks if there is spectral interference and indicates problems if there are any. Shimadzu FDA 21 CFR Part 11 compliant LabSolutions software provides ensured analytical data management.

Reduction of Argon Gas Consumption and Lower Running Cost by the Mini-torch and Eco Mode
Shimadzu unique mini-torch plasma unit significantly reduces the consumption of argon gas. The Eco mode automatically reduces the argon gas flow during standby. In addition, the use with 99.95 percent purity argon gas is guaranteed. Therefore, analysis can be performed using the relatively lower cost argon gas, instead of 99.999 percent or higher purity argon gas generally used. These features greatly reduce costs in laboratory operations.