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MKS Introduces the Cirrus(TM) 3-XD Atmospheric Gas Analysis System

With V-lens(TM) Ion Optics Technology for a Step Change in Trace Gas Detection

ANDOVER, Mass., March 10, 2015 (GLOBE NEWSWIRE) -- MKS Instruments, Inc. (Nasdaq:MKSI), a global provider of technologies that enable advanced processes and improve productivity, has introduced the Cirrus™.XD Atmospheric gas analysis system in both benchtop and rack mounted models. These quadrupole mass spectrometer (QMS) based systems provide a step-change in performance and 'eXtreme Detection' capability to advance atmospheric gas analysis in a wide range of analytical applications and environments. The Cirrus 3-XD system features new, patented V-lens™ Ion Optics Technology that eliminates baseline noise associated with the effects of metastable neutrals (a by-product of bulk gas ionization), a common issue in conventional QMS instruments. This unique performance attribute enables users, for the first time, to achieve consistently low ppb level detection limits, irrespective of the bulk gas present. The compact system includes new software to streamline the process of carrying out accurate quantitation of trace and bulk gases, and a unique capillary inlet and oven design that ensures a rapid and ultra-stable response.

The Cirrus 3-XD system also incorporates a unique internal oven and capillary inlet design that provides high temperature uniformity and ultra-stable response for qualitative and quantitative applications. The oven design eliminates cold spots and features advanced insulating properties and convection heating characteristics that are optimized for temperature uniformity across the entire inlet and analyzer. The heated inlet assembly employs a low volume, low surface area and inert silica-lined capillary to maximize response speed (250 data points per second) while minimizing memory effects.

As in earlier models, the Cirrus 3-XD system is controlled by the proven and versatile ProcessEye Professional software, which now features a new 'Multipoint Calibration' methodology to enable users to confidently generate accurate gas concentrations (in %) from raw partial pressure measurements. The new workflow provides facile calculation and implementation of sensitivity and normalization factors that are essential for accurate gas quantitation in applications such as identification of trace gases in bulk gas or profiling simple or complex gas mixtures.

Note to editors: To download a photo of the Cirrus™.XD quadrupole mass spectrometer, please go to the MKS web site: <http://www.mksinst.com/photos>.

About MKS:

MKS Instruments, Inc. is a global provider of instruments, subsystems and process control solutions that measure, control, power, monitor and analyze critical parameters of advanced manufacturing processes to improve process performance and productivity. Our products are derived from our core competencies in pressure measurement and control, materials delivery, gas composition analysis, control and information technology, power and reactive gas generation, and vacuum technology. Our primary served markets are manufacturers of capital equipment for semiconductor devices, and for other thin film applications including flat panel displays, solar cells, light emitting diodes, data storage media, and other advanced coatings. We also leverage our technology in other markets with advanced manufacturing applications including medical equipment, pharmaceutical manufacturing, energy generation, and environmental monitoring.

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