Tuesday Morning, October 31, 2017

Exhibitor Technology Spotlight Workshops Room West Hall - Session EW-TuM

Exhibitor Technology Spotlight

Moderator: Chris Moffitt, Kratos Analytical Limited, UK

10:20am EW-TuM-8 Development of a Novel Single Cold Cathode Ionization Gauge with Operation from High Vacuum to Atmosphere using Advanced Manufacturing Techniques, *Dave Kelly*, *G Brucker*, MKS Instruments, Inc., Pressure and Vacuum Measurement Group

Cold cathode ionization gauges (CCIGs) have been used for decades to make high vacuum measurements on a variety of production equipment. Traditionally, wide-range CCIGs involve multiple gauge techniques for pressure measurement, making this technology cost-prohibitive and not as robust for many industrial applications. In order to expand the scope of CCIG technology to address cost-sensitive and rugged applications, we have developed an innovative wide-range CCIG. This new CCIG utilizes a one gauge technique - gaseous discharge - which is capable of measuring pressures from high vacuum to atmosphere. Advanced manufacturing techniques were employed that allowed for the testing and selection of low-cost construction materials that are well suited for industrial environments. Moreover, these manufacturing techniques allowed for a design of this new gauge to be easily serviceable during routine preventive maintenance cycles, lowering the overall cost of ownership for a given application. The result of this development yielded a manufacturable lowcost wide-range CCIG capable of accuracy that meets the needs of the industry from 1E-7 Torr to atmosphere.

10:40am **EW-TuM-9 New Developments from Thermo Fisher Scientific**, *Timothy Nunney*, *P Mack*, *C Deeks*, *A Bushell*, Thermo Fisher Scientific, UK In this presentation we will highlight the latest developments in surface analysis and materials analysis instrumentation from Thermo Fisher Scientific.

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