## Wednesday Morning, November 15, 2006

#### Exhibitor Workshop

**Room Exhibit Hall - Session EW-WeB** 

#### **Exhibitor Workshop**

Moderator: R.A. Childs, MIT

10:00am **EW-WeB1 Capacitance Diaphragm Vacuum Gauge with ASIC Electronics**, *H. Hanselmann*, INFICON Ltd, Balzers, Liechtenstein; *R. Steiner*, *W. Hinn*, Hochschule für Technik Rapperswil, Switzerland; *M. Wüest*, *C. Berg*, INFICON Ltd, Balzers, Liechtenstein

We have developed a capacitance diaphragm vacuum gauge with digital electronics using an application specific integrated circuit (ASIC). The ASIC incorporates a charge balance amplifier and a matching network of capacitances which allows tuning the compensation capacitance between 0 and 1023 fF by software command. The use of digital electronics including an ASIC has many advantages such as improved accuracy since temperature drift and nonlinearity are better compensated. Further, owing to the highly integrated design stray capacitances have been reduced and immunity to electromagnetic interference has been improved.

# 10:20am EW-WeB2 Properties of Today's Vacuum Components, D. Koster, Danfoss, Germany

Vacuum processing today demands shorter process times and higher through-put at lower power consumption. There will be a continually increasing demand for vacuum equipment that secures these competitive benefits. At the same time, end products must meet consistently high quality standards. Choosing an appropriate vacuum valve technology has become markedly more important in meeting the requirements of the end user's application. This presentation focuses on the development of today's most commonly used vacuum valves and provides background on the benefits to be sought from those valves in today's vacuum processing.

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