



## **Einladung Anwenderseminar**

**Dr. Bruno Lenain**  
Kaiser Optical Systems SARL  
Ecully / France

### **"Analysing, Monitoring & Controlling Chemical Processes using Raman Spectroscopy."**

\*Ian R. Lewis, Marketing Manager, Harry Owen, Vice-President Commercial Products, Kaiser Optical Systems, Ann Arbor, Michigan, USA. e-mail: [lewis@kosi.com](mailto:lewis@kosi.com) and [owen@kosi.com](mailto:owen@kosi.com).

\*Bruno P. Lenain, Director of Kaiser Optical SARL, Lyon, France. E-mail: [lenain@kosi.com](mailto:lenain@kosi.com).

There is significant interest and value in techniques that provide instantaneous response for analyzing and monitoring chemical reactions. Molecular spectroscopic techniques such as RAMAN are becoming more widely used in the industry because they provide information both in real time and in situ. RAMAN spectroscopy is of particular interest because of its inherent speed, specificity, and sensitivity, non-destructive and non-invasive technique.

The application of RAMAN spectroscopy spans many different areas including organic synthesis, process R&D, process analysis, and manufacturing. The ability of the technique to analyze reactions with pressures up to 15,000 PSI and temperatures from -80 to 300C makes it ideal as a technique for understanding reaction mechanisms and kinetics. Reactants, products, side products, and reactive intermediates can be observed, identified and tracked as a function of time. The ease of sampling from microscope to immersion probes allows for a large field of applications from research to process control.

In this presentation, we are reviewing some of the most recent development in Raman instrumentation and will present some applications.

Datum: **Donnerstag, 15.05.2003**

Zeit: **16:00 Uhr**

Ort: **ACA, Seminarraum 514  
Richard-Willstätter-Str. 12  
12489 Berlin**

**Gäste sind herzlich willkommen !**