

IEnet Expert Group Process Analyser Technology (PAT)

## Trends in Process Analyser Technology in Chemical Plants

Wednesday the 27th of March 2019, Antwerp expo



### Intro

The young Process Analyser Technology (PAT) Expert Group within the Association of Engineers (IEnet) is at the service of persons and organizations in Flanders who intend to optimize their processing production by implementing on- and inline process analyses. The group transfers its knowledge via seminars, events and visits to processing plants, mainly in the fields of (petro-) chemistry, food & beverage, pharmaceuticals, metalworking and water purification. For this event, speakers from as far as Finland, Norway, Canada and Italy will fly in.

### Members

Covestro	Koen	Van Assche
Evonik	Paul	Goris
Evonik	Andrew	Brands
Inovyn	Dirk	Peeters
Janssen Pharmaceutica	Jurgen	Verbraeken
Umicore	Randy	Verbeeck
Easyfairs M+R / IEnet	Steven	Duytschaever
Engie	Frank	Portier
Engie	Herman	Hens
ABB	Ben	Goossens
Ankersmid M&C	Karl	Leysens
Endress + Hauser	Johan	Claes
Sick	Daniel	Pereira
Siemens	Laurens	Buyse
Siemens	Pascal	Sterkendries
Thermo Fisher	Mon	Van Gysel
Yokogawa	Bjorn	Lodewijckx
Yokogawa	Dominiek	Vanthuyne



Hour

12.30

Lunch



**The benefit of higher throughput Raman Spectroscopy for Process Analysis**

*Mark Kemper, Aavos/Tornado Spectral Systems, Canada*

13.15

Many processes could benefit from better characterization. Better characterization leads to more effective and productive real time control. High-throughput Raman as a process control tool offers the advantages of high sensitivity and speed that facilitate better understanding and constructive control of processes.

**Raman Spectrometry moving from Lab to Process**

*Koen Roelstraete, Endress+Hauser/Spectra Sensors Belgium*

13.45

While Raman is a well-established analytical tool in the laboratory, this spectroscopy technique is moving more and more into industrial plants. Both for liquid but also gas applications in O&G and HPI Industries.



**Mercury Monitoring Legislation**

*Leen Luyten, Kelma Belgium & Emilia Jyrkiäinen, Gasmot Finland*

14.15

As the awareness of the negative effects of mercury has grown, the need for mercury monitoring legislation has become apparent. Under IED Directive 2010/75/EU, individual Best Available Reference (BAT) documents, so-called BREFs, have been published for different industries. New Waste Incineration BREF is scheduled for 2019, and the final draft includes new mercury monitoring requirements for both new and existing plants. In this presentation, the upcoming mercury emission legislation will be discussed, as well as what each plant owner should consider in order to fulfill the new monitoring requirements.



14.45

Coffee break

**New Opportunities in Combustion Control**

*Peter Geiser, NEO Norway and Ankersmid M&C*

15.00

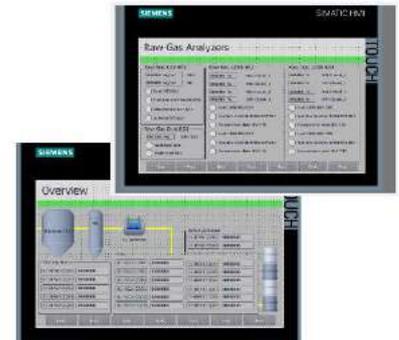
A new concept for multi-gas measurements based on TDLAS was developed. The concept can be combined with a probe solution designed for high temperature applications up to 850 °C. This auspicious combination enables new opportunities in combustion control with respect to efficiency and safety.

**Contamination risks in sample conditioning systems with continuous gas analysis.**

*Laurens Buyse, Siemens Belgium*

15.30

Continuous gas analysis, like any other analysis should receive the best possible representative sample of the process stream. We could say that the conditioned process sample presented to the process analyser should be of similar quality to the calibration material used to zero and span the analyser. With the risk that a very slow drift is not detected or that even the analyser itself is blamed, extra thoughts should be given into the design of the sample conditioning system as without it the analyser itself is useless. During this presentation some items will be highlighted: the importance of a 'truly representative sample': sample probes, transfer lines, coolers, valves and pumps; enclosures and walk-in shelters and their climate control systems.



**Application of NIR spectroscopy for monitoring granulation and blending in solid dosage form.**

*Kees van der Sar, Inventech The Netherlands, & Emiliano Genorini, Viavi Solutions Italy.*

16.00

QbD is not a single approach to the development and maintenance of a product's lifecycle, but the utilization of many analysis and analytical tools and a modern approach to quality by subject matter experts. For many years, near infrared (NIR) spectroscopy has been the PAT tool of choice for process monitoring due to its adaptability and analytical precision. References: AstraZeneca, Johnson&Johnson, Pfizer, Boehringer Ingelheim, Novartis, et cetera.



16.30

Visit to the exhibition



17.30

Drink @ the central M+R bar

