

INSTRUMENTATION FOR POWER PLANT CHEMISTRY

SWISSÔTEL ZURICH
ZURICH, SWITZERLAND
SEPTEMBER 19–21, 2006

The conference begins on Tuesday, September 19, 2006,
at 8:00 a.m. and concludes on Thursday, September 21,
2006, at noon.

CONFERENCE SPONSORS



Electric Power Research Institute, Palo Alto, CA, U.S.A.



VGB PowerTech e.V., Essen, Germany



PowerPlant Chemistry GmbH, Neulussheim, Germany



Swan Analytical Instruments, Riedikon/Uster, Switzerland

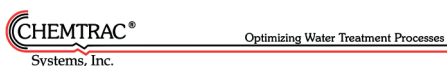


ABB Limited, Stonehouse, UK



EXCELLENCE IN PROCESS ANALYTICS
ANATEL HIAC ORBISPHERE HYT METONE POLYMETRON
www.hachultra.com

Hach Ultra Analytics, Vézenaz, Switzerland



Optimizing Water Treatment Processes
Systems, Inc.

Chemtrac Systems, Inc., Norcross, GA, U.S.A.



Passion. Power. Productivity.

Dionex Corporation, Sunnyvale, CA, U.S.A.



Analysen- und Anlagentechnik

Dr. Leye Analysen- und Anlagentechnik, Geringswalde, Germany



Dr. Thiedig + Co, Berlin, Germany



Metrohm AG, Herisau, Switzerland



Thermo Electron Corporation, EID/Water Analysis, Beverly, MA, U.S.A.

Official Conference Language

The official language of this conference will be English.

Technical Information and Conference Chairman

Albert Bursik (editor@ppchem.net)

Conference Coordinator

Ladi Bursik, BHT GmbH, Kusterdingen, Germany
Phone: +49-(0)7071-38313
Fax: +49-(0)7071-35040
E-Mail: ladi.bursik@bht-gmbh.com

Vendor Exhibition

There will be a special vendor exhibition at the conference. Contact the conference coordinator for more information or to reserve space.

Accommodations

Attendees will be responsible for making their own hotel reservations at the following hotel. Please make sure to refer to the PPChem Conference by name when making your reservation to receive the special group rate.

Swissôtel Zurich
Attn.: Ms. Chantal Zumofen
Am Marktplatz Oerlikon
Schulstrasse 44
CH-8050 Zuerich
Switzerland

Phone: +41-(0)1-3173111
Fax: +41-(0)1-3124468
E-Mail: chantal.zumofen@swissotel.com
<http://zurich.swissotel.com/>

Room rate: CHF210 single (about €135 or US\$160; currency exchange rates vary)

Room reservation deadline: August 15, 2006. After this date, the room rates will increase and availability is not guaranteed.

PRELIMINARY AGENDA

Tuesday, September 19, 2006

7:00 a.m. Continental Breakfast

8:00 a.m. Welcome and Introduction

INTRODUCTORY SESSION

8:15 a.m. The Most Important Areas of Chemistry in Power Plants

U. Staudt (VGB PowerTech, Germany) and **A. Bursik** (PowerPlant Chemistry, Germany)

8:40 a.m. Mandatory and Desirable Instrumentation in Units with PWRs and BWRs

F. Böttcher (EnBW Kernkraftwerke, Germany) and **W. Rühle** (NPP Chemistry Consultants, Germany)

9:05 a.m. The Key Monitoring Parameters to Ensure Optimum Availability and Reliability of Plant Cycles of Fossil-Fired Power Plants

R. B. Dooley (EPRI, U.S.A.) and **A. Bursik** (PowerPlant Chemistry, Germany)

SESSION 2: Plant Cycle Monitoring 1

9:30 a.m. Minimum Requirements for the Continuous On-line Analysis of Chemical Variables in the Steam/Water Circuit of Power Plant

W. Leye (Dr. Leye, Germany) and **E. Maughan** (College of Knowledge, Germany)

9:55 a.m. Break

10:25 a.m. A Method for Continuously Monitoring and Selectively Sampling Boiler Cycle Water for Metal Oxide Transport Analyses

R. Breckenridge, **L. Hancock** (Arizona Public Service Company, U.S.A.), **R. Bryant** and **J. Clark** (Chemtrac Systems, U.S.A.)

10:50 a.m. Conditioning and Supervision of a Power Plant with Process Steam Extraction and Condensate Return – How Does a Plant Specific Concept Come Out?

G. Pohnsner and **F. U. Leidich** (Alstom Power Generation, Germany)

11:15 a.m. Discussion of Introductory Session and Session 2

SESSION 3: Coal, Combustion, and Environment

- 11:30 a.m. Online Coal Analyzers Bring Benefits to the Utility Industry
R. Woodward (Thermo Electron, U.S.A.) and **T. Marx** (Thermo Electron, Germany)
- 11:55 a.m. Lunch
- 1:40 p.m. Development and Application of Gas Sensing Technologies for Combustion Processes
P. K. Dutta (Ohio State University, U.S.A.)
- 2:05 p.m. State of the Art in Flue Gas Analysis Technology for Emission Monitoring and Combustion Control
T. Kappes (Siemens PG, Germany)
- 2:30 p.m. New European Legislation: Quality Control of Automated Measuring Systems (AMSS) According to the Standard EN 14181
H. C. Gass (Eurofins – GFA, Germany)
- 2:55 p.m. Discussion of Session 3
- 3:10 p.m. Break

SESSION 4: Plant Cycle Monitoring 2

- 3:40 p.m. Cation Conductivity: Facts and Fiction
H. Maurer (Swan Analytical Instruments, Switzerland)
- 4:05 p.m. Use of Mathematical Model of Ionic Equilibrium for Chemical Monitoring of the Operating Medium Quality of Once-through Boilers
B. M. Larin, E. N. Bushuev, A. B. Larin, **M. K. L. Bhatti** (Ivanovo State Power University, Russia)
- 4:30 p.m. Modernization of the Sampling System in a Nuclear Power Plant
O. Kimura (Swan Analytical Instruments, Switzerland)
- 4:55 p.m. Discussion of Session 4
- 6:30–8:00 p.m. Reception and Buffet

Wednesday, September 20, 2006

- 7:00 a.m. Continental Breakfast

SESSION 5: In Search of Traces 1

- 8:00 a.m. Precise Trace-Level Determination of Anions and Cations in the Primary and Secondary Cooling Circuits of Nuclear Power Plants
Th. Hartmann, H. Schäfer, and **K. H. Viehweger** (Metrohm, Switzerland)
- 8:25 a.m. Sodium Monitoring in Water and Steam Power Plant Cycle
E. Basset, S. Connan, P. Dudouit, **P. Guillou**, E. L'Hostis, R. Qarbi, G. Stehle (Hach, Switzerland)
- 8:50 a.m. Luminescent Oxygen Sensor for Steam/Water Monitoring
S. Hediger, N. Ledermann, and **F. A. Dunand** (Hach, Switzerland)
- 9:15 a.m. Discussion of Session 5

SESSION 6: In Search of Traces 2

- 9:30 a.m. Advances in Ion Chromatography for Power Plant Operations
B. Newton (Dionex, U.S.A.) and **D. Jensen** (Dionex (Europe) Management, Switzerland)
- 9:55 a.m. Break
- 10:25 a.m. Methods for Verification of Low Parts-per-Trillion Sodium Determination by On-Line ISE-Based Sodium Monitors
S. West, X. Wen, and C. Baer (Thermo Electron, U.S.A.)
- 10:50 a.m. Calibration of On-line Analysers in the Steam/Water Circuit of Power Plant
E. Maughan (College of Knowledge, Germany)
- 11:15 a.m. On-line Instrument QA/QC Standard Practices
J. A. Mastroianni and D. Meils (Scientech, U.S.A.)
- 11:40 a.m. Discussion of Session 6
- 11:55 a.m. Lunch

SESSION 7: What We Need, What We Get, What We Need in the Future

1:40 p.m. This Panel Session will be moderated by **A. Bursik** (PowerPlant Chemistry, Germany).

2:40 p.m. Break

SESSION 8: Novelties and Highly Specialized Techniques 1

3:15 p.m. Undesired Trace-Products of Combustion Processes: Dioxins/Furans and Persistent Organic Pollutants (POPs)
O. Pöpke and U. Düwel (Eurofins, Germany)

3:40 p.m. Novel Photochemical Sensors for Determining Dissolved Oxygen
T. Ruda and **P. K. Dutta** (Ohio State University, U.S.A.)

4:05 p.m. Discussion of Session 8

4:20–5:15 p.m. Breakout Session on Chemistry Monitoring Needs

Thursday, September 21, 2006

7:00 a.m. Continental Breakfast

SESSION 9: Novelties and Highly Specialized Techniques 2

8:00 a.m. Monitoring Biofilms in Real Time for Control of MIC and Heat Exchanger Fouling
G. J. Licina (Structural Integrity Associates, U.S.A.)

8:25 a.m. Microcameras Exploring Space Between the Tubes
K. Zaar (viZaar Industrial Imaging, Germany)

8:50 a.m. Eddy Current Tube Inspection: Experiences, Inspections, Strategies and New Developments (Condenser, Heat Exchanger, Boiler)
I. Becker and **U. Carstensen** (EC-works, Germany)

9:15 a.m. Discussion of Session 9

SESSION 10: Novelties and Highly Specialized Techniques 3

9:30 a.m. Real-Time Monitoring of a Water Treatment Process by a Fiber Optic Laser-Induced Fluorescence
U. Wachsmuth, M. Niederkrüger, G. Marowsky (Laser-Laboratorium Göttingen, Germany), N. Konradt, H.-P. Rohns, and R. Imscher (Stadtwerke Düsseldorf, Germany)

9:55 a.m. Break

10:25 a.m. Chemical Monitoring of Drum-Type Boilers
B. M. Larin, E. V. Kozulina, U. U. Tikhomirova, S. V. Kiet (Ivanovo State Power University, Russia)

10:50 a.m. Discussion of Session 10

11:05 a.m. Presentation, Review and Discussion of Breakout Discussion Results

12:05 a.m. Closing Remarks, Adjournment of Conference

12:15 p.m. Lunch

Who Should Attend

This conference will be of major interest to

- Chemists and engineers responsible for monitoring chemistry-related parameters in fossil and nuclear power plants and in industrial steam and power producers and to personnel involved in the calibration and maintenance of chemistry-related instrumentation
- Instrumentation developers
- Engineers servicing chemistry-related instrumentation
- Original equipment manufacturers (OEMs) supplying the power industry
- Component suppliers for the power generation industry
- Architectural engineers (A&Es) working for the power generation market
- Salespersons active in this field

Fees

Presenters (one presenter per paper) € 490
All Others € 550
Late Registration Fee + € 100
(assessed after August 15, 2006)