

CEM 2007 8th International Conference on Emissions Monitoring

CEM 2007 is an international conference designed to cover the broad subject of emissions monitoring. Following previous, successful events in the United Kingdom, the Netherlands, Denmark, Italy and France, CEM 2007 will take place September 5-6 in Zürich, Switzerland.

CEM 2007 is a two day event with 6 sessions covering the following topics:

- 1) Measurement of gaseous emissions
- 2) Remote optical techniques
- 3) Particle emissions and analysis
- 4) Diffuse emissions: modeling and measurements
- 5) Quality assurance and quality control
- 6) Industrial applications and case studies

Each session will include both oral presentations and posters. A highly competent scientific committee has chosen from over 85 submitted contributions coming from 22 countries. The scientific committee includes experts from Switzerland, Denmark, Italy, Great Britain, Germany, France and the Netherlands. All contributions will be published in the conference proceedings, a book that reflects the latest developments in emissions monitoring and that will serve as an up-to-date reference in a rapidly developing field.

An exhibition will run in parallel with the conference. Over 30 exhibitors will create an excellent opportunity for conference participants to see a selection of the latest equipment and services offered by leading manufacturers in the field of emissions monitoring. Similarly, manufacturers and representatives will be able to contact important clients and decision makers in an intensive and informal way. The exhibition is located in a marquee just outside the main conference hall. All poster sessions are located within the exhibition. Furthermore, coffee breaks and dessert will take place in the exhibition to guarantee close and fruitful contacts between scientific and commercial partners.

CEM 2007 is sponsored by all exhibitors and by a number of

important partners in the field of emissions monitoring and environmental regulation.

These include the European Commission Joint Research Centre, the Source Testing Association, the IEA Clean Coal Centre, Environmental Technology Publications, Luftunion, Cercl'Air and the Swiss Federal Office for the Environment.

The conference will take place at the research institution Empa in Dübendorf, near Zürich, Switzerland. Empa is a materials science and technology research institution in the ETH domain, an important element in education, science and innovation in Switzerland. Its core tasks are innovative collaboration with industry and public institutions, ensuring the safety of people and the environment, knowledge propagation and university-level teaching. The two-day conference will offer the participants a fruitful opportunity to meet regulators, process operators, equipment manufacturers and test houses in a pleasant and informal environment. A delightful gala dinner is planned in the very center

of Zürich in a historic building of the Swiss Federal Institute of Technology with a splendid view over downtown Zürich. Participants will have the possibility to attend a free guided city walk of Zürich's old-town before the gala dinner. Bus transportation between the conference venue and ETH Zürich will be provided after the first conference day. Looking forward to CEM 2007, its organizer Lukas Emmenegger says "This conference will bring together an impressive number of professionals from the field of emissions monitoring. It will reflect recent developments in research, standardization, legislation and technology.

The combination of highly competent scientific contributions with commercial developments presented in the exhibition should not be missed by anyone interested in emissions monitoring.

The conference and the exhibit will be fully booked, so anyone interested should rapidly visit www.empa.ch/cem2007 for additional information and registration."

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AMESA II The Next Generation of Continuous Dioxin Monitoring

The standard law regulations for dioxin emission monitoring demand an 8 hour manual sampling for which complicated equipment, sampling experts and long preparation time is necessary. Additional such short term samplings do not provide representative data. On the other side there exists no online monitoring system for dioxins and furans. Therefore more than 10 years ago the automatic long term sampling system AMESA[®] from **Environnement S.A.** (France) was designed and approved by TUV and MCERTs.

The AMESA[®] system extracts a sample from the gas stream continuously through a titanium probe, which is water cooled. The sample flow is automatically controlled so that gases are withdrawn isokinetically. The water vapour laden sample is drawn through a cartridge filled with pre-spiked XAD-II resin. The water vapour is then condensed by cooling the sample to below +5°C. Similar to US EPA method 23A the condensate has not to be analysed. Therefore the handling in comparison to the cooled probe and filter cooler method of EN-1948 is quite easier.

After the sampling period the XAD-II cartridge is exchanged and sent to a dioxin laboratory for dioxin/furan analysis. Beside dioxin and furans the suitability of the system was also tested successfully for all unintentionally Persistent Organic Pollutants (u-POPs) mentioned in the Stockholm Convention

AMESA[®] was installed during the last 10 years in more than 120 applications in many countries and different kind of plants like e.g. municipal and hazardous waste incinerators, cements plants, power plants etc. Therefore it was almost getting like a standard instrument for continuous dioxin sampling. E.g. in Belgium a complete network of around 50 AMESA[®] systems was realised and the positive influence of such a system by reducing the total dioxin emissions in one region by a factor 20 could be demonstrated.

By implementing the experiences of all these different installations a new AMESA[®] II system was designed. The new system consists of a new controller with colour display and the possibility of internet connection by TCP/IP. The operation is done very easy by use of a jog dial and the operating data protocol can be easy transferred by the use of a USB memory stick. With the optional addition of several components the system is also able to sample for heavy metals, mercury, PM10 and PM 2,5. With all the new benefits, this new generation of dioxin monitor will help again to support a positive impact on the environment during the next view years.