Air Pollution Monitoring Technologies for Urban Areas

AIRMONTECH WORKSHOP



Summary of presentations and discussion from April 25, 2012 (1/2)

- K. Katsouyanni, Options for Integration of Air Quality and Health Effects Monitoring. Monitoring data initially obtained for compliance are being used since longtime for health impact assessment. There are a number of needs that these data should fulfill to be applicable for HIA, specially data quality and gabs
- G. Hoek presented a number of results on air quality monitoring for exposure assessment. Special attention is paid in the short term effects and the link from outdoor centralised measurements to exposure
- •M. Barbiere presented the AirMonTech database by describing how to access to the website and the tools to search and find the different types of relevant documents available. He offered the possibility of having a password (by a previous e-mail request) to access relevant documentation and comment on it
- •R. Gehrig presented the quality needs assurance: Standard operating procedures. He described the type approvals and equivalence tests for regulated pollutants available in the website. This is ongoing but we have already 8 certifications and 21 less formal testing documents, among other type of relevant information
- •There was discussion on: a) The need for a quality flag for labeling for the data in order to categorize data quality, b) the means that AirMonTech will use to have and objective assessment for instrumental performance for different purposes

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- •K. Pletscher, summarized the latest standard in Type Approval and Certification of Automated Measuring Systems in Europe EN 15267. This will be an step forwards to ensure data quality. Important developments are made in the framework of a DE-UK collaboration for certification purposes
- •Discussion focused on: a) the high costs that manufacturers have for certification of new instruments and technologies; b) long time needed for equivalence, certification and other approval tests limits the application of new technologies; c) Certifications are valid for specific Member States and this is also a problem for manufacturers and users; d) what to do if tests fail in one or several of the stages
- •M. Kalberer, presented new developments of High Time-resolved and Online Determination of Reactive Oxygen Species (ROS) in Ambient Air. The instrumentation used allowed online measurements of ROS and examples were presented on: a) Chamber experiments of photochemical formation of SOA from motorbike emissions showing higher ROS of SOA compared with POA and higher ROS of EURO1 compared with EURO2, b) preliminary ambient air online data for ROS
- •M. Nieuwenhuijsen, presented studies on personal monitoring, and on how the data compare to air quality measurements and what additional information can be derived. Results show that outdoor and personal conc are not well correlated, whereas corr is higher for indoor and personal exposure. Examples of cohort, commuting and city time and spatial city scale exposure assessment were presented



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April 26, 2012

08:40	Diffusion Charging for Easy Monitoring of Integral Particle Metrics (Average Diameter, Number and Surface Concentration) - <i>M. Fiertz</i>
09:10	Developments and Applications of Sensor Technologies for Ambient Air Monitoring - M. Gerboles
09:40	COST Action EuNeTAir – M. Penza
10:00	Coffee break (Exhibitors)
10:20	Black Carbon Measurements for Improved Urban Air Quality Monitoring - X. Querol
10:50	The Potential of the Aerosol Chemical Speciation Monitor for Long-Term Monitoring - M. Prévot
11:20	Trends in Instrumentation for Urban Air Quality Monitoring: New Devices and Metrics – T. Kuhlbusch
12:00	Discussion New Instruments / Metrics
12:20	Lunch break (Exhibitors)
13:30	Future Options and Strategies in Urban Air Quality Monitoring – P. Quincey
14:10	EU Commission's Perspective – M. Schouppe
14:40	General Discussion & Concluding Remarks - all
15:15	Farewell Coffee
15:45	Core Stakeholder Cycle - CSC Members & AMT WP leaders