



Workshop TECH-AIR 2016

Application of Non-Conventional Analytical TECHniques to Atmospheric Particulate Matter

November 7th 2016, Sala del Rettorato, Piazza Tancredi, Lecce

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PROGRAM

First session Chairman: Daniele CONTINI (ISAC-CNR)

9.00 – 9.30 Opening: Roberta VECCHI (President of IAS)
Vincenzo ZARA (Rector of the University of Salento)
Cristina SABBIONI (Director of ISAC-CNR)

9.30 – 10.20

Aerosol Mass Spectrometry (AMS) for the study of the chemical composition of the particulate matter and the characterisation of organic aerosol with high temporal resolution.

Speaker: Stefania GILARDONI (ISAC-CNR)

10.20 – 11.00 COFFEE BREAK

Second session Chairman: Maria Rita PERRONE (University of Salento)

11.00 – 11.50

The Multi-Wavelength Absorption Analyzer (MWAA): a new instrument for the characterization of Carbonaceous Aerosol.

Speaker: Dario MASSABÒ, (University of Genova & INFN)

11.50 – 12.40

Nuclear Magnetic Resonance (NMR) spectroscopy for the study of organic compounds and functional groups.

Speaker: Stefano DECESARI (ISAC-CNR)

12.40 – 14.30 LIGHT LUNCH & POSTER SESSION

Third session Chairman: Luigia SABBATINI (University of Bari)

14.30 - 15.20

Fourier Transform Infrared Spectroscopy (FTIR) applied to analysis of organics functional groups.

Speaker: Satoshi TAKAHAMA (École Polytechnique Fédérale de Lausanne, Switzerland)

15.20 - 16.10

Air Quality Control: the contribution of XPS.

Speaker: Antonella ROSSI (University of Cagliari)

Round table

16.10 – 16.50

Moderators:

Luca FERRERO (University of Milan) & Vorne GIANELLE (Arpa Lombardia)

WORKSHOP CLOSURE

POSTER SESSION

P1. Is Coarse Enrichment Factors (CEF) a useful parameter to study Particulate Matter?

E. Baiutti, A. Zanello, F. Stel, F. Moimas, I. De Simon, G. Zampa, M. Zonca

P2. A methodology for aerosol typing by three-wavelength lidar and sun photometer measurements.

P. Burlizzi, S. Romano, and M.R. Perrone

P3. Installation and performance tests of a new hybrid solid/gas ion source for μgC samples at CEDAD: potentialities in aerosol sciences

L. Maruccio, E. Braione, G. Quarta, L. Calcagnile

P4. Non-conventional techniques to monitor the aerosol vertical properties in the atmosphere over an Alpine station.

H. Diémoz, T. Magri, G. Pession, C. Tarricone, M. Zublena, V. Marinelli, A.M. Siani

P5. High time-resolved monitoring campaign in the polluted industrial area of Taranto (Italy): hourly chemical composition and source apportionment

A. Di Gilio, M. Placentino, P. Dambruoso, F. Lucarelli, G. Calzolari, S. Nava, R. Giua, G. Assennato, G. de Gennaro

P6. Deliquescence and crystallization of aerosol: measurement technique and applications

L. Ferrero, L. D'Angelo, G. Rovelli, M. Casati, M.G. Perrone, G. Sangiorgi, E. Bolzacchini

P7. The infrared fingerprint of the soluble fraction of atmospheric aerosol: towards the identification of functional groups influencing oxidative potential

L. Giotta, M.R. Guascito, M. Zollino, D. Chirizzi, L. Valli, D. Cesari, A. Dinoi, D. Contini

P8. Application of XPS technique to the chemical characterization of particulate matter in different size ranges.

M.R. Guascito, D. Cesari, L. Giotta, D. Chirizzi, A. Donateo, and D. Contini

P9. Characterization of carbonaceous PM₁₀ and PM_{2.5} in a rural site in the South of Italy

B. Introna, A. Genga, C. Malitesta, M. Siciliano, T. Siciliano

P10. Flexible GUI for Optimizing FTIR-based Instrumentation in Air Pollution Detection

A. Lay-Ekuakille, G. Griffo, P. Visconti, P. Mvemba, S. Kidiamboko

P11. Marzocca Indoor Air Quality assessment and study of PM intrusion within a school in Taranto city, south of Italy

A. Marzocca, P.R. Dambruoso, A. Di Gilio, M. Tutino, M. Placentino, R. Giua, G. Assennato, G. de Gennaro

P12. Opportunities to apply non-conventional techniques for fugitive emissions in IPPC permits.

C. Mazziotti, C. Cafaro

P13. A simple approach for the determination of heavy metals in airborne particulate matter (PM₁₀) by Laser Ablation-Inductively Coupled Plasma Mass Spectrometry

A. Pennetta, G.E. De Benedetto

P14. Aerosol type identification by intensive optical parameters from simultaneous nephelometer and aethalometer measurements.

S. Romano, M. Calvello, F. Esposito, G. Pavese, P. Burlizzi, M.R. Perrone

P15. Estimation of biomass burning contribution to PM_{2.5} using the Aerosol Chemical Speciation data (ACSM) and levoglucosan concentration.

M. Stracquadiano, E. Petralia, M. Berico, T. LaTorretta, A. Malaguti, G. Cremona, M. Mircea, L. Ciancarella

P16. Black Carbon in the city of Milan

G. Tundo, V. Gianelle, M. Lazzarini, U. Dal Santo, E. Cuccia, C. Colombi, A. Algieri, R. Ricceri