

Minutes of the 2nd Workshop on Source Apportionment
“The use of Receptor Models in the Source Apportionment of Air Pollutants”
Ispra, 17th-18th January 2012

Introduction

The workshop, organized by European Commission - Joint Research Centre, took place on 17th-18th January 2012 in Ispra (Italy) and was attended by experts from 13 different countries. The main objectives of the workshop were to a) present the preliminary results of the first step of the intercomparison exercise for Receptor Models, b) present and discuss the outline of the second step of the intercomparison, and c) present the progress of the Common European Receptor Model Technical Protocol.

The keynote “Data Evaluation and Preparation for Receptor Modelling: Making silk purses out of sows’ ears” by P.K. Hopke and P. Paatero was presented by the special guest Prof. Philip K. Hopke from Clarkson University (New York State, US).

The workshop was structured in three sessions

- Session 1. Source Apportionment: US experience to support EU development
- Session 2. European Intercomparison Exercise for Source Apportionment with Receptor Models 2011-2012
- Session 3. Receptor Model Technical Protocol (RMTP)

Summary of the presentations

In the first session the initiative: "Harmonisation of Source Apportionment using Receptor Models in Europe" was presented by Claudio Belis. The relevance of this initiative in the broader context of the air pollution field and the revision of the European Commission Thematic Strategy on Air Pollution was discussed by Annette Borowiak. Stefano Galmarini presented the progress achieved in FAIRMODE and their connections with the source apportionment work.

The keynote speech by Philip Hopke, and Pentti Paatero focused on issues in real-world datasets used in source apportionment and how to deal with them.

Sinan Yatkin illustrated a study for the assessment of the methodologies based on X-ray fluorescence to determine elements in atmospheric particulate matter samples.

The second session was dedicated to the intercomparison exercise for Receptor Models. Federico Karagulian and Claudio Belis explained the new methodological approach used for the evaluation of the intercomparison exercise and presented the preliminary results.

Guido Pirovano (RSE) presented the methodology used to develop a synthetic dataset to be used in the second step of the intercomparison.

The third session was devoted to the illustration of the first draft of the European Common Protocol for receptor models and the comments and suggestions from the audience.

The discussion of the protocol was preceded by the a presentation of Christine Piot (LGGE) to illustrate the work on source apportionment, with particular reference to organic pollutants, carried out in the framework of a collaboration between three French research groups.

AGENDA

Harmonization of Source Apportionment with Receptor Models
2nd Workshop "The use of Receptor Models in the Source Apportionment of Air Pollutants"
17th-18th January 2012

European Commission - Joint Research Centre
Via E. Fermi 2749 Ispra 21027 VA (Italy) Bld 36 Room 2

FIRST DAY

Session 1. Source Apportionment: US experience to support EU development

09:30	Opening speech	F. Dentener, JRC – Acting HoU, Air and Climate
09:40	The initiative: "Harmonisation of Source Apportionment using Receptor Models in Europe"	C. A. Belis, JRC
10:00	Keynote: Data Evaluation and Preparation for Receptor Modelling: Making silk purses out of sows' ears	P. Hopke Clarkson University (US) & P. Paatero YP-Tekniikka Ky (FI)
11:00	COFFE BREAK	
11:30	The Review of the EU Air Policy	A. Borowiak, JRC
11:50	FAIRMODE: Harmonisation of Air Quality Modelling in Europe	S. Galmarini, JRC
12:10	Evaluation of EDXRF for the Determination of Elements in PM ₁₀	S. Yatkin, JRC
12:30	LUNCH IN THE JRC MENSA	

Session 2. European Intercomparison Exercise for Source Apportionment with Receptor Models 2011-2012

14:00	Presentation of the Dataset	F. Karagulian & C. A. Belis, JRC
14:30	Methodological Approach in Data Elaboration	
15:00	Intercomparison Preliminary Results	
16:00	COFFE BREAK	
16:30	Discussion	ALL
17:30	Presentation of a Synthetic Database	G. Pirovano, RSE
17:45	Conclusions of the First Day	ALL
18:00	END OF FIRST DAY	

SECOND DAY

Session 3. Receptor Model Technical Protocol (RMTP)

09:00	Organic Aerosol Source Apportionment: the Work of three French Groups	C. Piot - LGGE
09:20	Presentation of the RMTP Draft	Drafting Committee: F. Amato, C. A. Belis (chair), O. Favez, I. El Haddad, R. Harrison, P.K. Hopke, F. Karagulian, B. R. Larsen, P. Paatero, A. Prévôt, U. Quass, R. Vecchi, M. Viana
11:00	COFFEE BREAK	
11:30	Discussion on RMTP	ALL
12:00	Final Discussion and Conclusions of the Workshop	ALL
13:00	LUNCH IN THE JRC MENSA	

List of participants

ALIER PEDEMONTE Marta	IDAEA-CSIC
BEDDOWS David	University of Birmingham
BERNARDONI Vera	University of Milan
CESARI Daniela	ISAC-CNR
CONTINI Daniele	ISAC-CNR
CUCCIA Eleonora Simona	Universita' degli studi di Genova
DELANEY Kevin	Irish EPA
EL HADDAD Imad	Paul Scherrer Institut
ELEFThERIADIS Konstantinos	NCSR Demokritos
GIANINI Matthias	Empa - Swiss Federal Laboratories for Materials
GILARDONI Stefania	CNR - ISAC
HAK Claudia	NILU - Norwegian Institute for Air Research
HOVORKA Jan	Charles University in Prague
HOPKE Philip K.	Clarkson University - CARES
JAFFREZO Jean-luc	LGGE
LONATI Giovanni	Politecnico di Milano
LUCARELLI Franco	Department of Physics University of Florence
MATEJOVICOVA Jana	Slovak Hydrometeorological Institute
MOOIBROEK Dennis	RIVM
NAVA Silvia	INFN Firenze
PAGLIONE Marco	CNR-ISAC
PERRONE Maria Grazia	University of Milano Bicocca
PETIT Jean-Eudes	LSCE
PIETRODANGELO Adriana	CNR Inst. For Atm. Poll. Research
PIOT Christine	LGGE
PIROVANO Guido	RSE
POKORNA Petra	Faculty of Science Charles University in Prague
PRATI Paolo	Joint Research Centre
SCOTTO Fabiana	ARPA Emilia-Romagna
VALLI Gianluigi	Dept. of Physics - University of Milan
VECCHI Roberta	Dept. of Physics - University of Milan
VESTENIUS Mika	Finish Meteorological Institute
YUBERO Eduardo	Miguel Hernandez University

JRC STAFF

BOROWIAK Annette	ACFA ACTION LEADER
BELIS Claudio	CONVENER
GALMARINI Stefano	FAIRMODE WG1 LEADER
KARAGULIAN Federico	
GERBOLES Michel	
YATKIN Sinan	