


Thursday: 17 October 2019

9.00-11.00 **Topic 7 – EFCA session: “Ultrafine particles - air quality and climate: State of play related to scientific evidence and policy proposal”** 

1. **Andrzej Jagusiewicz**: UFP - INTEGRATING ACTION FOR CLEANER AIR AND CLIMATE PROTECTION
2. **John Murlis**: HOW TO TACKLE THE MOST AGGRESSIVE EMISSION SECTORS - CASE STUDY: SHIPPING
3. **Thomas Reichert**: RESULTS OF THE 7th EFCA SYMPOSIUM ON ULTRAFINE PARTICLES- AIR QUALITY AND CLIMATE
4. **Stergios Vratolis, Maria Gini, D. Siakavaras, S. Bezantakos, I. Stavroulas, N. Kalivitis, E. Kostenidou, E. Louvaris, G. Biskos, N. Mihalopoulos, S. Pandis, C. Pilinis, Konstantinos Eleftheriadis**: FINE AND ULTRAFINE PARTICLE NUMBER SIZE DISTRIBUTION STATISTICS AT URBAN, SUBURBAN BACKGROUND AND REMOTE SITES IN GREECE
5. **Maria Gini, Evangelia Diapouli, Stergios Vratolis, Constantinos Helmis, Konstantinos Eleftheriadis**: MICROPHYSICAL AND SELECTED CHEMICAL PROPERTIES OF FINE AND ULTRAFINE PARTICLES AT A SUBURBAN ENVIRONMENT AND THEIR DEPENDENCE ON AIR CIRCULATION PATTERNS

11.00-11.15 – **Coffee Break**

11.15-11.30 – **Technical and business presentation, exhibition**

11.30-13.15 – **Topic 3 – Monitoring ambient air pollution**

1. **Vasiliki Vasilatou, Evangelia Diapouli, Manousos Ioannis Manoussakas, Susana Marta Almeida, Vânia Martins, Tiago Faria, and Konstantinos Eleftheriadis**: INDOOR AND OUTDOOR PM CHARACTERIZATION AT HOMES AND SCHOOLS, IN LISBON, PORTUGAL 
2. **Krešimir Šega, Ivan Bešlić, Ranka Godec, Silvije Davila**: EXCEEDANCES OF PM<sub>10</sub> DAILY LIMIT VALUE AT AN URBAN BACKGROUND STATION IN ZAGREB 2001-2018 
3. **Mirjana Čačković, Krešimir Šega, Valentina Gluščić, Vladimira Vadić, Gordana Pehnec, Ivan Bešlić**: LEVELS OF MASS CONCENTRATIONS OF WATER-SOLUBLE COMPONENTS IN PM<sub>2.5</sub> PARTICLE FRACTION IN AIR FOR THE PERIOD 2014 – 2018 
4. **Boris Mifka, Paula Žurga, Dario Kontošić, Dajana Odorčić, Marjana Mezlar, Ana Alebić-Juretić**: FRACTIONS OF AIRBORNE PARTICULATES IN THE URBAN ATMOSPHERE OF RIJEKA 
5. **Glenda Herjavić, Ksenija Kuna, Ivona Igrec, Ivana Fržić**: MEASUREMENT OF AIR POLLUTION PARAMETERS AT THE PUNTIJARKA STATION 
6. **Silva Žužul, Sabina Žero, Jasna Huremović, Jasmina Rinkovec, Ranka Godec, Katja Džepina, Gordana Pehnec**: MASS CONCENTRATIONS OF METALS IN PM<sub>10</sub> PARTICULATE MATTER IN THE SARAJEVO REGION 
7. **Jasmina Rinkovec, Gordana Pehnec, Silva Žužul**: METALS IN PM<sub>10</sub> AND PM<sub>1</sub> FRACTIONS IN ZAGREB AIR 

13.15-13.30 – **Technical and business presentation, exhibition**

13.30-14.30 – **Lunch Break**

14.30-15.00 – **Topic 3 – Monitoring ambient air pollution - continuation** 

1. **Vedran Vadić, Monika Babačić, Ivan Bešlić, Predrag Hercog, Bojan Abramović**: IMPACT ANALYSIS OF EL-TO ON AIR QUALITY IN NORTHERN ZAGREB FROM FEBRUARY 2014 TO FEBRUARY 2018.
2. **Gordana Pehnec, Silvije Davila, Ivan Bešlić**: CONCENTRATIONS OF NITROGEN DIOXIDE IN ZAGREB AIR FOR THE PERIOD 2009 – 2018

15.00-16.15 – **Topic 4 – Developing and testing measuring methods** 

1. **Silvije Davila, Ivan Bešlić**: AIR QUALITY SENSORS – THE FUTURE OF AIR QUALITY MEASUREMENT?
2. **Marko Marić, Ivana Hrga, Zdravko Orsag**: QUALITY ASSURANCE OF AIR QUALITY MONITORING WITH LOW COST ELECTRO-CHEMICAL AIR POLLUTION SENSORS
3. **Ivan Bešlić, Silvije Davila, Krešimir Šega**: A REVIEW OF EQUIVALENCY STUDIES ON AUTOMATIC MEASURING SYSTEMS FOR ATMOSPHERIC PARTICULATE MATTER MASS CONCENTRATION DETERMINATION
4. **Predrag Hercog, Goran Crvelin, Vedran Vadić**: SO<sub>2</sub> INTERFERENCE IN AUTOMATIC METHOD FOR H<sub>2</sub>S
5. **Ivana Jakovljević, Zdravka Sever Štrukil, Gordana Pehnec**: OPTIMIZATION OF DIFFERENT SAMPLE PREPARATION PROCEDURES FOR THE DETERMINATION OF POLYCYCLIC AROMATIC HYDROCARBONS BOUNDED ON PARTICLE FRACTIONS IN THE AIR

16.15-16.30 – **Technical and business presentation, exhibition**



16.30-17.00 – **Coffee Break**

17.00-18.00 – **Poster session** 

1. **Stjepana Brzaj, Sonja Vidić, Vesna Gugec, Ivona Igrec**: NITROGEN AND SULPHUR DEPOSITION TRENDS OVER CROATIA DURING THE PERIOD 1981-2018
2. **Damjana Čurkov, Sonja Vidić, Martin Belavić, Velimir Milić**: NITROGEN AND SULPHUR DEPOSITION TRENDS OVER CROATIA DURING THE PERIOD 1981-2018
3. **Valentina Gluščić, Gordana Pehnec, Silva Žužul, Martina Šilović Hujjić, Ana Mihaljević, Mirjana Čačković**: LEVELS OF CHLORIDE, NITRATE AND SULPHATE IN TOTAL DEPOSITED MATTER AT TWO SAMPLING SITES IN ZAGREB FOR THE PERIOD 2014 – 2018
4. **Snježana Herceg Romanić, Darija Klinčić**: CROATIA WITHIN THE MONET PROJECT FOR THE PERIOD 2009-2013
5. **Gordana Marović, Zdenko Franić, Mak Avdić, Jasminka Senčar**: TOTAL BETA ACTIVITY IN THE AIR IN ZADAR
6. **Brunislav Matasović, Gordana Pehnec, Ivan Bešlić, Silvije Davila, Dinko Babić**: ASSESSMENT OF TROPOSPHERIC OZONE CONCENTRATION DATA FROM THE NORTHERN ZAGREB AREA FOR THE PERIOD FROM 2003 TO 2016

Saturday: 19 October 2019

Expert excursion

-  - presentations in Croatian
-  - presentations in English

All presenters should send their presentations to [sazeci-zrak2019@huzz.hr](mailto:sazeci-zrak2019@huzz.hr) by **11 October 2019**.

#### CONTACT

Dr.sc. Gordana Pehnec  
CAPP  
Ksaverska cesta 2  
HR-10000 ZAGREB  
Croatia

Tel: +385 1 4682-580; 4682-586  
Fax: +385 1 4673-303  
e-mail: [gpehnec@imi.hr](mailto:gpehnec@imi.hr)  
Web: [www.huzz.hr](http://www.huzz.hr)



**CROATIAN AIR POLLUTION PREVENTION ASSOCIATION**

in cooperation with:



INSTITUTE FOR MEDICAL RESEARCH AND OCCUPATIONAL HEALTH



CROATIAN METEOROLOGICAL AND HYDROLOGICAL SERVICE



EUROPEAN FEDERATION OF CLEAN AIR AND ENVIRONMENTAL PROTECTION ASSOCIATIONS – EFCA

invite you to the

**ELEVENTH CROATIAN SCIENTIFIC AND PROFESSIONAL CONFERENCE**  
with international participation

# “AIR PROTECTION 2019”



BOL, CROATIA  
15 -19 OCTOBER 2019.

**SECOND ANNOUNCEMENT**

## UNDER THE PATRONAGE OF:

Ministry of Environment and Energy

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Tomislav Čorić

Andrzej Jagusiewicz

## PRELIMINARY PROGRAMME

**Tuesday: 15 October 2019**

**17.00-19.00 – Registration and accommodation of the participants**

**Wednesday: 16 October 2019**

**8.30-9.30 – Registration and distribution of the conference materials**

**9.30-10.00 – Opening Ceremony**

**10.00-11.30 – Introductory lectures**

**1. OUTPUTS OF THE 18<sup>th</sup> WORLD CLEAN AIR CONGRESS, 23-29 SEPTEMBER 2019, ISTANBUL**

**2. Paweł Ciećko: THE REFORM OF AIR QUALITY MONITORING SYSTEM IN POLAND**

**5. Ivana Hrga, Barbara Stjepanović, Ana Večenaj, Mirjana Špehar, Ivan Ivanec, Nikolina Furlan, Itana Bokan Vucelić, Anita Vucić, Danijela Peroš-Pucar, Marijana Matijić Cvjetović, Ivana Fičko, Nina Vuletin, Mirna Mamić, Tatjana Puljak, Željka Cerovac, Zdenka Šušić, Mirta Eberhard, Marija Mulanović Smolčić, Vesna Kauzlaric, Alema Ježić, Lea Ivančić, Helena Bakić Begić, Božena Mitić, Ante Cvitković, Martina Nadih: RAGWEED POLLEN SEASON IN CROATIA IN 2018**

**6. Marijana Matijić Cvjetović, Anita Vucić, Tatjana Puljak, Mirna Mamić, Danijela Peroš- Pucar, Božena Mitić: COMPARATIVE AEROBIOLOGICAL STUDY OF OLEA EUROPEA L. POLLEN IN DALMATIA**

**10.30-11.00 – Coffee Break**

**11.00-12.00 – Topic 6 – Air protection in physical planning, construction and environmental protection**

**1. Ivan Pavičić, Ana Marija Marjanović Čermak: PRESENCE OF ASBESTOS FIBERS IN THE AIR AT THE CITIES OF CROATIA**

**2. Sonja Vidić, Stjepana Brzaj, Vedrana Džaja Grgičin, Ivona Igrec, Ksenija Kuna, Glenda Herjavić, Ivana Fržić: ATMOSPHERIC DEPOSITION TRENDS IN CROATIA (1981-2018)**

**3. Ranka Godec, Saranda Bakija Alempijević, Ivan Bešlić, Sanja Frka, Andrea Milinković, Abra Penezić, Iva Šimić: ATMOSPHERIC DEPOSITION OF POLLUTANTS IN THE SEA SURROUNDING ŠIBENIK, CROATIA**

**4. Stjepana Brzaj, Vedrana Džaja Grgičin, Sonja Vidić, Andrea Milinković, Sanja Frka: IMPACT OF ATMOSPHERIC DEPOSITION ON THE CENTRAL ADRIATIC SEA: TEMPORAL VARIABILITY AND MAIN POLLUTANT PATHWAYS, MODELLING STUDY**

**12.00-12.15 – Technical and business presentation, exhibition**

**12.15-12.30 – Coffee Break**

**12.30-14.00 – Final discussion on all topics of the Conference**

**14.00-14.30 – Closing of the Conference**

**7. Domagoj Mihajlović, OPERATIONAL MODEL FOR SENDING SMS MESSAGES DURING HIGH CONCENTRATIONS OF SO<sub>2</sub>, NO<sub>2</sub> AND O<sub>3</sub> IN AMBIENT AIR**

**8. Nenad Periš, Angela Stipišić: MEASUREMENTS OF AIR QUALITY IN THE AREA OF THE CITY SPLIT**

**9. Branko Petrinc, Dinko Babić, Tomislav Meštrović i Mak Avdić: PROBLEM IN FIELD MEASUREMENTS OF RADIOACTIVITY IN AIR**

**10. Zdravka Sever Štrukil, Ivana Jakovljević, Ranka Godec, Gordana Pehnc: SEASONAL DEPENDENCE OF POLYCYCLIC AROMATIC HYDROCARBONS' DISTRIBUTION IN PM<sub>10</sub> AND PM<sub>2.5</sub> FRACTIONS IN ZAGREB**

**11. Suzana Sopčić, Martina Šilović Hujic, Mirjana Čačković, Ranka Godec, Vladimira Vađić, Gordana Pehnc: SEASONAL DEPENDENCE OF POLYCYCLIC AROMATIC HYDROCARBONS' DISTRIBUTION IN PM<sub>10</sub> AND PM<sub>2.5</sub> FRACTIONS IN ZAGREB**

**12. Luka Mrvoš, Domagoj Mihajlović, Lovro Hrust, Borna Božiković, Mario Šantolić: TESTING THE LIFETIME OF PARTICLE FILTERS ON MEASURING DEVICES FOR THE MEASUREMENT OF INORGANIC COMPOUNDS (SO<sub>2</sub>, NO<sub>x</sub>, CO AND O<sub>3</sub>) AND VOLATILE ORGANIC COMPOUNDS IN AMBIENT AIR**

**13. Martina Šilović Hujic, Ranka Godec, Iva Šimić, Ivan Bešlić: ORGANIC AND ELEMENTAL CARBON IN THE PM<sub>2.5</sub> AND PM<sub>1.0</sub> PARTICLE FRACTIONS IN ZAGREB AIR**

**14. Iva Šimić, Gordana Mendaš Starčević, Gordana Pehnc: ATMOSPHERIC DEPOSITION OF ORGANIC COMPOUNDS: COMPARISON BETWEEN DIFFERENT PERFORMANCES OF A BULK COLLECTOR**

**20.00 – Conference dinner**

**Friday: 18 October 2019**

**9.00-10.30 – Topic 5 – Estimating exposure to air pollutants and impact on health**

**1. Jagoda Doko Jelinić, Andrea Barišin, Roko Žaja: THE PREVALENCE OF SICK BUILDING SYNDROME SYMPTOMS AMONG SHOPPING MALL EMPLOYEES**

**2. Renata Peternel, Predrag Hercog: MECHANISM OF ACTION OF AIRBORNE PARTICLES ON THE CARDIOVASCULAR SYSTEM**

**3. Tatjana Čulina, Velimir Zubak, Ana Alebić-Juretić: OZONE AIR POLLUTION IN RIJEKA BAY AND ITS POSSIBLE IMPACT ON HUMAN HEALTH**

**4. Anita Vucić, Danijela Peroš- Pucar, Benito Pucar, Ivana Hrga: AN ASSESSMENT OF AEROBIOLOGICAL INDOOR AIR QUALITY IN ZADAR KINDERGARTENS**

**3. Cleo Kosanović: AIRQ PROJECT - EXPANSION AND MODERNISATION OF THE NATIONAL NETWORK FOR CONTINUOUS AIR QUALITY MONITORING**

**11.30-12.00 – Coffee Break**

**12.00-13.30 – Round table - Presentation of AIRQ project: Expansion and modernisation of the national network for continuous air quality monitoring**

**13.00-14.30 – Lunch Break**

**14.30-15.00 – Topic 1 - Managing air quality – inspection and control**

**1. Zdenko Franić: EXPERIENCE OF ACCREDITATION OF VERIFICATION BODIES FOR ASSESSMENT OF MONITORING PLANS AND VERIFICATION OF CO<sub>2</sub> EMISSIONS IN MARITIME TRANSPORT**

**2. Vjeran Magjarević, Mario Pokrivač, Gordana Golja: ISSUES REGARDING THE AIR QUALITY ACTION PLAN**

**15.00-15.15 – Technical and business presentation, exhibition**

**15.15-16.30 – Topic 2 – Atmospheric emissions of pollutants**

**1. Astrid Manders, Renske Timmermans, Richard Kranenburg, Anton Visschedijk, Jeroen Kuenen, Kevin Hausmann, Martijn Schaap: IMPROVEMENT OF BLACK CARBON EMISSIONS AND MODELLED CONCENTRATIONS IN GERMANY**

**2. Željko Topić, Zoran Kovačević, Željko Keliš, Goran Butković: BIO-MASS AS A RENEWABLE ENERGY SOURCE IN EU ETS**

**3. Tamara Tarnik, Ivana Roksa: IMPACT OF CHANGES IN THE FOURTH PERIOD OF EMISSION TRADING SYSTEM ON THE ENERGY SECTOR**

**4. Željko Keliš, Ivana Laković, Antun Smiljan, Željko Topić: LEAKAGE CHECK FOR SO<sub>2</sub> ON THE REGENERATIVE ROTATING CHANNEL OF HEAT EXCHANGER (REGAVO) IN THE HEP PROIZVODNJA d.o.o. – TE PLOMIN 2**

**5. Josipa Hećimović Ksenija Papa, Suzana Prišć: USE OF ALTERNATIVE FUELS IN THE CEMENT INDUSTRY AND CO<sub>2</sub> EMISSION REDUCTION IN NAŠICECEMENT d.d.**

**16.30-17.00 – Coffee Break**

**17.00-17.30 – Topic 3 – Monitoring ambient air pollution**

**1. Martijn Schaap, Richard Kranenburg, Astrid Manders, Jeroen Kuenen: SOURCE ATTRIBUTION OF PM FOR NORTHWESTERN EUROPEAN CITIES USING LOTOS-EUROS**

**2. Vedrana Džaja Grgičin, Stjepana Brzaj, Sonja Vidić, Andrea Milinković, Sanja Frka: CHARACTERIZATION AND SOURCE APPORTIONMENT OF PARTICULATE MATTER OVER MIDDLE ADRIATIC SEA: LOTOS-EUROS MODELLING STUDYS**