

PROGRAMME

Central European Conference ECOpole'17

WEDNESDAY, 4th October 2017

17.00 - RECEPTION

17.00 – 18.50 DINNER

19.00 Maria and Witold WACŁAWEK (*University of Opole, Opole, PL*): **Welcome Participants**

19.05-20.00 Musical Soirée

THURSDAY, 5th October 2017

7.00-8.50 BREAKFAST

9.00-13.40 SECTION SI

9.00-13.40 Posters of POSTER SESSION P1 are available for examination and discussion

9.00-10.35 PLENARY SESSION S1

9.00-9.05 Maria and Witold WACŁAWEK (*University of Opole, Opole, PL*): **Opening of the Conference**

9.05-9.50 Miroslav ČERNÍK (*Faculty of Mechatronics, Informatics and Interdisciplinary Studies & the Institute for Nanomaterials, Advanced Technologies and Innovation, Technical University of Liberec, Liberec, CZ*): **NANOMATERIALS AND THE TOXICITY FOR HUMAN AND ENVIRONMENT**

9.50-10.35 Andrzej NOWAK (*Western Pomeranian University of Technology, Szczecin, PL*): **THE STORIES WITH MICROORGANISMS...**

10.35-10.50 COFFEE AND TEA BREAK

10.50-12.05 PLENARY SESSION S2

10.50-11.05 Á. Bálint¹, J. Fekete² (*1) Óbuda University, Institute of Environmental Engineering, Budapest, HU; 2) Szent István University, Gödöllő, HU*): **EFFECT OF PUBLIC TRANSPORT FOR HEAVY METAL CONCENTRATION IN THE SOILS**

11.05-11.20 T. Olszowski (*Opole University of Technology, Opole, PL*): COMPARISON OF PM₁₀ WASHOUT ON URBAN AND RURAL AREAS

11.20-11.35 T. Tõnutare¹, K. Krebstein¹, A. Toomsoo¹, L. Szajdak², L. Soobik³, M. Jürgens¹, R. Kõlli¹ (1) *Estonian University of Life Sciences, Tartu, EE*; 2) *Polish Academy of Sciences, Poznań, PL*; 3) *University of Tartu, Tartu, EE*): FACTORS INFLUENCING THE DISTRIBUTION OF ARABLE SOILS BY THEIR PHOSPHORUS CONTENT CLASSES IN DEPENDENT OF THE USED METHODS OF ANALYSIS

11.35-11.50 D. Panasiuk (*Cardinal Stefan Wyszyński University in Warsaw, Warszawa, PL*): USE OF COST-EFFECTIVENESS ANALYSIS FOR CHOICE OF MERCURY EMISSION REDUCTION TECHNIQUES IN POLAND

11.50-12.05 H. Kierzkowska-Pawlak, E. Kruszcak, J. Tyczkowski (*Lodz University of Technology, Łódź, PL*): NOVEL INORGANIC NANOCATALYSTS FOR ENHANCING CO₂ CAPTURE

12.05-13.40 POSTER SESSION P1

M.S. Brodowska, M. Kurzyna-Szklarek (*University of Life Sciences in Lublin, Lublin, PL*): ESTIMATION OF BIOACCUMULATION OF SELECTED HEAVY METALS IN VEGETABLE PRODUCTS IN MODEL STUDIES

M.S. Brodowska, M. Kurzyna-Szklarek, T. Filipek (*University of Life Sciences in Lublin, Lublin, PL*): ESTIMATION OF THE SELECTED CHEMICAL PROPERTIES OF SOIL AGROECOSYSTEMS IN THE ASPECT OF UNBALANCED MINERAL FERTILIZATION

R. Cichowicz, G. Wielgosiński (*Lodz University of Technology, Łódź, PL*): ANALYSIS OF VARIATION OF AIR POLLUTION FIELDS IN SELECTED CITIES IN POLAND AND GERMANY

Y. Danko¹, R. Babko², G. Łagód³ (1) *Sumy Makarenko State Pedagogical University, Sumy, UA*; 2) *Schmalhausen Institute of Zoology NAS of Ukraine, Kiev, UA*; 3) *Lublin University of Technology, Lublin, PL*): THE REACTION OF THE BENTHIC NON-ANAEROBIC CILIATE ASSEMBLAGE TO THE PROLONGED DISSOLVED OXYGEN DEFICIENCY IN THE LABORATORY EXPERIMENT

J. Grzyb, K. Frączek (*University of Agriculture in Krakow, Kraków, PL*): THE AIR MICROFLORA OF SELECTED ANIMAL ENCLOSURES IN THE ZOO

S. Hoffman (*Czestochowa University of Technology, Częstochowa, PL*): CHANGES OF THE LEVEL OF AIR POLLUTANTS CONCENTRATION IN MASOVIAN VOIVODESHIP

R. Jasiński (*Czestochowa University of Technology, Częstochowa, PL*): PM₁₀ AND PM_{2.5} CONCENTRATIONS IN WINTER PERIODS OF SMOG EPISODES IN THE AREA OF UPPER SILESIA URBAN AGGLOMERATION

B. Karwowska (*Czestochowa University of Technology, Częstochowa, PL*): INFLUENCE OF CITRIC ACID EXTRACTION ON THE HEAVY METALS FRACTIONATION IN SEWAGE SLUDGE

B. Karwowska, Li. Dąbrowska (*Czestochowa University of Technology, Częstochowa, PL*): BIOAVAILABILITY OF HEAVY METALS IN THE MUNICIPAL SEWAGE SLUDGE

A. Kęska (*Wroclaw University of Science and Technology, Wrocław, PL*): DETERMINATION OF VOLATILE ORGANIC COMPOUNDS FOR COMBUSTION ENGINES COMPLIANT WITH EURO 4 AND EURO 6

G. Łagód, D. Majerek, Z. Suchorab (*Lublin University of Technology, Lublin, PL*): CHANGES OF PROKARYOTIC AND EUKARYOTIC ORGANISM COMMUNITY STRUCTURE OF PECTON SAMPLED IN WWTP FOLLOWING DEVICES

D. Majerek¹, M. Garbacz¹, S. Duda¹, M. Nabrdalik² (*1) Lublin University of Technology, Lublin, PL; 2) Opole University, Opole, PL*): SUPERVISED AND UNSUPERVISED LEARNING TECHNIQUES USED FOR GAS SENSORS ARRAY SIGNAL INTERPRETATION IN EARLY DETECTION OF MOLD CONTAMINATION IN THE BUILDINGS

D. Majerek, M. K. Widomski, S. Duda (*Lublin University of Technology, Lublin, PL*): ANALYSIS OF THE SELECTED INDICATORS OF WATER POLLUTION INTRODUCED WITH TREATED MUNICIPAL SEWAGE TO RECEIVER - THE BYSTRZYCA RIVER

R. Malmur, M. Mrowiec (*Czestochowa University of Technology, Częstochowa, PL*): TRANSFER RESERVOIR AS A NEW SOLUTION FOR TRANSFER OF STORMWATER TO WATER RECEIVERS

A. Musz-Pomorska, M. K. Widomski, A. Pyła (*Lublin University of Technology, Lublin, PL*): ANALYSIS OF CHLORINE DISTRIBUTION IN RURAL WATER SUPPLY NETWORK

M. Nabrdalik (*University of Opole, Opole, PL*): PRODUCTION OF INDOLE ACETIC ACID BY ENDOPHYTIC *BACILLUS* STRAINS

M. Nabrdalik, A. Rombel-Bryzek, E. Moliszewska (*University of Opole, Opole, PL*): EVALUATION OF CELLULOLYTIC ACTIVITY OF *ASPERGILLUS VERSICOLOR*

T. Olszowski (*Opole University of Technology, Opole, PL*): THE REMOVAL EFFICIENCY OF DUST DURING SHORT-TERM RAINS – VERYFICATION OF ADDITIONAL FACTORS

D. Panasiuk (*Cardinal Stefan Wyszyński University in Warsaw, Warszawa, PL*): SUBSTANCE FLOW ANALYSIS FOR MERCURY IN POLAND FOR YEAR 2015

R. Smoła, J. Gołębiowska, A. Żelazna (*Lublin University of Technology, Lublin, PL*): THE STUDY OF COOLING CAPACITY OF SYSTEM WITH PELTIER MODULE DEPENDING ON THE PARAMETERS OF THE FAN POWER SUPPLY

M. Sporek, M. Wilhelm (*University of Opole, Opole, PL*): MONITORING WILD BOAR'S (*Sus scrofa*) POPULATIONS

V. Štěpánek^{1,3}, J. Loskot¹, M. Smolík¹, L. Hyšplerová¹, J. Kříž¹, L. Trnková², A. Dolhańczuk-Śródka⁴, Z. Ziembik⁴, M. Rajfur⁴, A. Klos⁴, M. Waclawek⁴ (1) *University of Hradec Králové, CZ*, 2) *EMPLA, Hradec Králové, CZ*, 3) *Coal power plant Chvaletice, CZ*, 4) *University of Opole*): REDUCTION OF PARTICULATE MATTER AND MERCURY EMISSIONS FROM COAL POWER PLANTS, COMPARATIVE EMISSION MODELING IN CZ-PL REFERENCE POINTS

E. Szczyrba¹, A. Gąszczak¹, G. Bartelmus¹, D. Janecki² (1) *Polish Academy of Sciences Gliwice, PL*; 2) *University of Opole, Opole, PL*): MODELLING THE PROCESS OF COMETABOLIC DECOMPOSITION OF 4-CHLOROPHENOL BY THE *STENOTROPHOMONAS MALTOPHILIA* KB2 STRAIN IN THE PRESENCE OF PHENOL AS THE GROWTH SUBSTRATE

M. Szwed, M. Żelezik (*Jan Kochanowski University in Kielce, Kielce, PL*): THE INFLUENCE OF THE SELECTIVE MUNICIPAL WASTE COLLECTION POINTS ON THE NATURAL ENVIRONMENT OF THE SKARŻYSKO DISTRICT

S. Werle, W. Uchman, Ł. Ziółkowski, M. Chabiński (*Silesian University of Technology, Gliwice, PL*): INREASING THE POTENTIAL OF ENERGY CROPS APPLICATION FOR HEAVY METAL CONTAMINATED AREAS

S. Werle¹, Ł. Ziółkowski¹, C. Tomescu², V. Rusu¹, A. Milandru¹ (1) *Silesian University of Technology, Gliwice, PL*; 2) *Institute for Studies and Power Engineering, Bucharest, RO*): USE OF THE FT-IR TECHNIQUE FOR TESTING HEAVY METAL CONTAMINATED ENERGY CROPS

M. Wiatkowski (*Wrocław University of Environmental and Life Sciences, Wrocław, PL*): OPTIMIZATION OF PRE-DAMS IN THE WŁODZIENIN RESERVOIR'S BACKWATER AREA IN THE ASPECT OF THE IMPROVEMENT OF WATER QUALITY

S. Wierzba, S. Golasz (*University of Opole, Opole, PL*): BIOSORPTION OF CR (III) FROM AQUEOUS SOLUTIONS USING ALGAE *SPIRULINA MAXIMA* BIOMASS

S. Wierzba, A. Dzieniszewska (*University of Opole, Opole, PL*): BIOSORPTION OF CU(II) FROM AQUEOUS SOLUTION BY MODIFIED *PALMARIA PALMATA* BIOMASS

J. Wyczarska-Kokot, A. Lempart, M. Dudziak (*Silesian University of Technology, Gliwice, PL*): CHLORINE CONTAMINATION IN DIFFERENT POINTS OF POOL – RISK ANALYSIS FOR BATHER HEALTH

M. Wyszkowski, A. Ziółkowska (*University of Warmia and Mazury in Olsztyn, Olsztyn, PL*): EFFECT OF PETROL, DIESEL OIL AND NEUTRALIZING SUBSTANCES ON SOME PROPERTIES OF SOIL

13.40-15.00 LUNCH

14.30-19.40 Posters of POSTER SESSION P2 are available for examination and discussion

15.00-19.40 SECTION SII

15.00-16.25 PLENARY SESSION S3

15.00-15.45 Antonín LYČKA (*Faculty of Science, University of Hradec Králové, Hradec Králové, CZ*): NUCLEAR MAGNETIC RESONANCE SPECTROSCOPY IN ENVIRONMENTAL AND BIOMEDICAL RESEARCH, BENEFITS AND LIMITATIONS

15.45-16.25 S. Waclawek (*Technical University of Liberec, CZ*): GRAPHENE OXIDE-INCORPORATED NANOFIBERS BASED ON GUM ARABIC/POLYVINYL ALCOHOL

16.25-16.40 COFFEE AND TEA BREAK

16.40-18.10 PLENARY SESSION S4

16.40-16.55 A. Kwiecińska, J. Figa, M. Chrubasik, K. Rychlewska (*Institute for Chemical Processing of Coal, Zabrze, PL*): MAIN CONTAMINANTS IN COKE OVEN WASTEWATER – METHODS OF DETERMINATION AND REMOVAL

16.55-17.10 M. Kutylowska (*Wroclaw University of Science and Technology, Wroclaw, PL*): REGRESSION TREES AS A TOOL FOR FORECASTING OF FAILURE RATE

17.10-17.25 D. Suszanowicz (*University of Opole, Opole, PL*): THE IMPACT OF GREEN ROOFS ON THE PARAMETERS OF THE ENVIRONMENT IN URBAN AREAS

17.25-17.40 P. Ratuszny (*University of Opole, Opole, PL*): THERMAL ENERGY STORAGE IN CONSTRUCTION OF SINGLE-FAMILY DETACHED HOMES

17.40-17.55 K. Badora, R. Wróbel (*University of Opole, Opole, PL*): SPATIAL POTENTIAL FOR THE DEVELOPMENT OF WIND POWER IN POLAND IN THE LIGHT OF NATURAL CONDITIONS AND NEW LEGAL REGULATIONS

17.55-19.40 POSTER SESSION P2

E. Adamek, W. Baran, L. Krumpholtz, B. Pelczar (*Medical University of Silesia in Katowice, Katowice, PL*): A STUDY ON SUSCEPTIBILITY OF TYLOSIN TO DEGRADATION BY PHOTOCHEMICAL REACTIONS

E. Adamek, W. Baran, R. Adamczyk (*Medical University of Silesia in Katowice, Katowice, PL*): AN ABIOTIC HYDROLYSIS OF THE SELECTED ANTIBIOTICS USED IN VETERINARY; A CHRONIC TOXICITY THE PRODUCTS

W. Baran, E. Adamek, A. Szymkiewicz, J. Wilk (*Medical University of Silesia in Katowice, Katowice, PL*): THE KINETICS OF SULFATHIAZOL BIODEGRADATION AND THE CHARACTERISTICS OF THE PRODUCTS

W. Baran, E. Adamek, K. Wiśniewska, M. Cholewiński (*Medical University of Silesia in Katowice, Katowice, PL*): A STUDY ON INITIATION OF PHOTOCATALYTIC DEGRADATION OF SULFADRUGS IN THE $\text{TiO}_2/\text{FeCl}_3$ SYSTEM

B. Bień (*Czestochowa University of Technology, Częstochowa, PL*): THE INFLUENCE OF CONDITIONING METHODS ON THE QUALITY OF SLUDGE LIQUIDS AFTER SEWAGE SLUDGE MECHANICAL DEWATERING

I. Deska, M. Mrowiec, E. Ociepa (*Technical University of Czestochowa, Częstochowa, PL*): INFLUENCE OF THE HYDROGEL ADDITION ARRANGEMENT IN THE SUBSTRATE ON THE RETENTION CAPACITY OF GREEN ROOFS

L. Dąbrowska (*Czestochowa University of Technology, Częstochowa, PL*): EFFECTIVENESS OF REMOVING ORGANIC MATTER FROM SURFACE WATER USING POLYALUMINIUM CHLORIDE

A. Kalinichenko¹, V. Havrysh² (1) *Opole University, Opole, PL*; 2) *Mykolayiv National Agrarian University, UA*): ENVIRONMENTALLY FRIENDLY FUEL USAGE: ECONOMIC MARGIN OF FEASIBILITY

E. Kudlek (*Silesian University of Technology, Gliwice, PL*): TREATMENT OF LAUNDRY WASTEWATER IN DIFFERENT CONFIGURATIONS OF ADVANCED OXIDATION PROCESSES

E. Kudlek, M. Dudziak, J. Bohdziewicz, G. Kamińska (*Silesian University of Technology, Gliwice, PL*): REMOVAL OF MICROPOLLUTANTS IN THE LABORATORY MULTIFUNCTIONAL MEMBRANE REACTOR

M. Kuglarz, K. Gröbel (*University of Bielsko-Biala, Bielsko-Biala, PL*): CO-DIGESTION OF SEWAGE SLUDGE AND RAPESEED CAKES COUPLED WITH EFFECTIVE TREATMENT OF POST-DIGESTION LIQUORS

J. Makuchowska-Fryc, K. Folwarczny (*University of Opole, Opole, PL*): OBTAINING A CATALYST FOR THE PRODUCTION OF BIOFUELS FROM HEN EGGSHELL

B. Pieczykolan, I. Plonka (*Silesian University of Technology, Gliwice, PL*): APPLICATION OF EXCESS ACTIVATED SLUDGE AS WASTE SORBENT FOR DYES REMOVAL FROM THEIR AQUEOUS SOLUTIONS

I. Pietkun-Greber, D. Suszanowicz (*University of Opole, Opole, PL*): RESEARCH ON THE INFLUENCE THE EFFECTIVENESS OF DIFFERENT TYPES OF VENTILATION SYSTEMS ON AIR QUALITY IN MULTI-FAMILY RESIDENTIAL BUILDINGS

I. Pietkun-Greber¹, M. Sozańska², A. Mościcki² (1) *University of Opole, Opole, PL*; 2) *Silesian University of Technology, Katowice, PL*): EFFECT OF HYDROGEN CONCENTRATION ON PROPERTIES OF HIGHER STRENGTH STEEL

I. Plonka, B. Pieczykolan (*Silesian University of Technology, Gliwice, PL*): APPLICATION OF ELECTROMAGNETIC WAVES TO DISINTEGRATION OF POST-COAGULATION SLUDGE

P. Ratuszny (*University of Opole, Opole, PL*): STUDY OF HEAT TRANSPORTATION IN GRANULAR DEPOSITS

T. Rauckyte-Żak, S. Żak (*University of Science and Technology, Bydgoszcz, PL*): ASSESSMENT OF SLUDGES FROM PHYSICOCHEMICAL PRETREATMENT OF WASTEWATERS GENERATED FROM CONSTRUCTION CHEMICALS MANUFACTURING.

Part 1. Characteristics of sludges from one-stage pretreatment

T. Rauckyte-Żak, S. Żak (*University of Science and Technology, Bydgoszcz, PL*): ASSESSMENT OF SLUDGES FROM PHYSICOCHEMICAL PRETREATMENT OF WASTEWATERS GENERATED FROM CONSTRUCTION CHEMICALS MANUFACTURING.

Part 2. Characteristics of sludges from two-stage pretreatment

E. Sparczyńska (*Czestochowa University of Technology, Częstochowa, PL*): USE OF PRECIPITATION PROCESS FOR REJECT WATER TREATMENT

S. Werle¹, Ł. Ziolkowski¹, C. Tomescu², V. Rusu², A. Milandru², M. Pogrzeba³, J. Krzyżak³ (1) *Silesian University of Technology, Gliwice, PL*; 2) *Institute for Studies and Power Engineering, Bucharest, RO*; 3) *Institute for Ecology of Industrial Areas, Katowice, PL*): PHYSICO-CHEMICAL PROPERTIES OF TARS AND ASHES OF THE GASIFICATION PROCESS OF THE HEAVY METAL CONTAMINATED MISCANTUS X GIGANTEUS AND SIDA HERMAFRODITA

M.K. Widomski¹, A. Musz-Pomorska¹, W. Stępniewski¹, R. Horn² (1) *Lublin University of Technology, Lublin, PL*; 2) *Institute for Plant Nutrition and Soil Science, CAU Kiel, Kiel, D*): MODELING OF BENZENE PROPAGATION THROUGH CRACKED COMPACTED CLAY LINER OF MUNICIPAL WASTE LANDFILL

P. Wolski (*Czestochowa University of Technology, Częstochowa, PL*): TREATMENT OF MEDICAL WASTE AS AN EXAMPLE OF HAZARDOUS WASTE MANAGEMENT

A. Zaremba¹, T. Rodziewicz², M. Waclawek² (1) *Czestochowa University of Technology, Częstochowa, PL*, 2) *University of Opole, Opole, PL*): THE IMPACT OF ELECTRIC ENERGY STORAGE ON THE FUTURE OF RENEWABLE ENERGY SOURCES

P. Zawadzki, E. Kudlek, M. Dudziak (*Silesian University of Technology, Gliwice, PL*): INFLUENCE OF THE PHOTOCATALYST TYPE AND PH OF SOLUTION ON PHOTOCATALYTIC DEGRADATION EFFICIENCY OF BISPHENOL A

I. Zawieja (*Czestochowa University of Technology, Częstochowa, PL*): BIOGAS FROM EXCESS SLUDGE SUBJECTED TO THERMOPHILIC METHANE FERMENTATION

Z. Ziembik, A. Dolhańczuk-Śródka (*University of Opole, Opole PL*): APPLICATION OF COMPOSITIONAL DATA ANALYSIS (CoDA) IN ASSESSMENT OF ENVIRONMENTAL PROCESSES MECHANISMS

S. Żak (*University of Science and Technology, Bydgoszcz, PL*): RESEARCH ON WASTEWATERS TREATMENT FROM THE PROCESS OF ANIMAL FATS WET

RENDERING

Part 1. Mobile research testing set use in treatment

S. Żak (*University of Science and Technology, Bydgoszcz, PL*): RESEARCH ON TREATMENT OF WASTEWATERS AFTER CONDENSATION GENERATED IN THE UTILIZATION PROCESS OF ANIMAL ORIGIN MATERIAL

S. Żak, T. Rauckyte-Żak (*University of Science and Technology, Bydgoszcz, PL*): ASSESSMENT OF SLUDGES GENERATED AT TWO INSTALLATIONS FOR PHYSICOCHEMICAL PRETREATMENT OF PROCESS WASTEWATERS FROM LOW-TONNAGE PRODUCTIONS

20.00 SPANISH EVENING with Spanish dishes, music and songs

FRIDAY, 6th October 2017

7.00-8.20 BREAKFAST

8.30-10.30 SECTION SIII

8.30-10.30 PLENARY SESSION S5

8.30-9.15 Dionysios D. DIONYSIOU (*Environmental Engineering and Science Program, University of Cincinnati, Cincinnati, Ohio, USA*): DEVELOPMENTS AND APPLICATIONS OF SULFATE RADICAL-BASED ADVANCED OXIDATION PROCESSES IN REMOVAL OF ORGANIC CONTAMINANTS

9.15-10.00 Zbigniew A. SZYDŁO (*Highgate School, London, UK*): TWO ENGLISH CHEMISTS/AUTHORS: JOHN READ (1884-1963) AND JAMES RIDDICK PARTINGTON (1886-1965)

10.00-10.30 K. Nazarewicz, R. Pasculli (*accela s.r.o., Prague, CZ*): DETECTION OF BACTERIA IN NATURAL WATERS WITH NOVOCYTE® FLOW CYTOMETER

10.30 Conference photo

10.45-11.00 COFFEE AND TEA BREAK

11.00-19.00 SECTION SIV: FORUM OF YOUNG SCIENTISTS (FYS)

11.00-12.15 SESSION S6 ORAL PRESENTATIONS OF YOUNG SCIENTISTS

11.00-11.15 M. Broniszewski¹, S. Werle² (1) *Bulten Poland S.A., Bielsko-Biala, PL*; 2) *Silesian University of Technology, Gliwice, PL*): ASSESSMENT OF POSSIBILITIES FOR REUSING WASTE HEAT TO COVER NEEDS FOR HEATING IN BULTEN POLSKA S.A.

11.15-11.30 J. Czerwińska, O. Namiecińska, G. Wielgoński, R. Cichowicz (*Lodz University of Technology, Łódź, PL*): NITROGEN OXIDES EMISSION REDUCTION ON SCR CATALYST

11.30-11.45 M. Janas, Al. Zawadzka (*Lodz University of Technology, Łódź, PL*): ASSESSMENT OF MONITORING OF AN INDUSTRIAL WASTE LANDFILL

11.45-12.00 E. Kruszcak, H. Kierzkowska-Pawlak (*Lodz University of Technology, Łódź, PL*): STUDY OF CO₂ ABSORPTION INTO MIXED AMINES OF DEEA AND MAPA

12.00-12.15 D. Madej¹, A. Sobczak^{1,2} (1) *Medical University of Silesia, Sosnowiec, PL*; 2) *Institute of Occupational Medicine and Environmental Health, Sosnowiec, PL*): A CONTENT OF TOXIC COMPOUNDS IN AN AEROSOL PRODUCED FROM ELECTRONIC CIGARETTES

12.15-14.00 LUNCH

13.30-19.00 Posters of POSTER SESSION P3: FORUM OF YOUNG SCIENTISTS (FYS) are available for examination and discussion

14.00-16.45 Session S7: ORAL PRESENTATIONS OF YOUNG SCIENTISTS (FYS)

14.00-14.15 M. Marciniak, A. Klos, M. Rajfur (*University of Opole, Opole, PL*): ASSESSMENT OF ATMOSPHERIC METAL CONTAMINANTS WITH USE OF ACTIVE BIOMONITORING

14.15-14.30 E. Moliszewska¹, A. Gawdzik Jr.², A. Rombel-Bryzek¹ (1) *University of Opole, PL*; 2) *Wroclaw University of Technology, Wroclaw, PL*): THE INFLUENCE OF DIFFERENT KINDS OF WATER ON THE EARLY VEGETATION OF SUGAR BEET SEEDLINGS

14.30-14.45 O. Namiecińska, J. Czerwińska, G. Wielgoński, R. Cichowicz (*Lodz University of Technology, Łódź, PL*): AIR POLLUTION IMPACT ASSESSMENT OF ALTERNATIVE FUEL COMBUSTION PLANT IN COMPARISON TO THE CONVENTIONAL HEATING PLANT

14.45-15.00 D. Nieweś, M. Kaniewski, D. Popławski, M. Huculak-Mączka, E. Klem-Marciniak, J. Hoffmann, K. Hoffmann (*Wroclaw University of Science and Technology, Wroclaw, PL*): USING ASPEN PLUS SOFTWARE TO OPTIMIZE NITROGEN OXIDES OXIDATION IN THE PROCESS OF NITRIC ACID PRODUCTION

15.00-15.15 G. Ołoś (*University of Opole, Opole, PL*): ANTLER ANOMALIES OF CERVIDAE FAMILY MEMBERS IN OPOLE VOIVODESHIP

15.15-15.30 A. Pacia¹, S. Duda², A. Dolhańczuk-Śródka¹, Ł. Guz², G. Łagód² (1) *University of Opole, Opole, PL*; 2) *Lublin University of Technology, Lublin, PL*): THE E-NOSE IN PRELIMINARY CLASSIFICATION OF DRAINAGE WATER SAMPLES

15.30-15.45 M. Plata-Gryl, G. Boczkaj (*Gdansk University of Technology, Gdańsk, PL*): NEW METHOD OF ISOLATION OF ASPHALTENES HAVING REPRODUCIBLE PURITY AND SORPTIVE PROPERTIES AS SORBENTS FOR SEPARATION TECHNIQUES

15.45-16.00 K. Sobala, H. Kierzkowska-Pawlak (*Lodz University of Technology, Łódź, PL*): DETERMINATION OF HEAT OF ABSORPTION OF CO₂ IN AQUEOUS AMINE SOLUTIONS

16.00-16.15 A. Szulecka, M. Bogacki (*AGH University of Science and Technology, Kraków, PL*): INITIAL ASSESSMENT OF BIOGENIC VOLATILE ORGANIC COMPOUNDS EMISSION RATES FROM THE AREA OF POLAND. CASE STUDY: JULY 2015

16.15-16.30 M. Zielińska¹, A. Klos¹, Z. Bochenek², J.W. Bjerke³, H. Tømmervik³, B. Zagajewski⁴, D. Ziółkowski², M. Rajfur¹, A. Dolhańczuk-Śródka¹, Z. Ziembik¹ (1) *University of Opole, Opole, PL*; 2) *Institute of Geodesy and Cartography, Warszawa, PL*; 3) *Norwegian Institute for Nature Research, Tromsø, NO*; 4) *Warsaw University, Warszawa, PL*): CONTAMINATION OF THE FOREST AREAS IN POLAND WITH HEAVY METALS

16.30-17.00 COFFEE AND TEA BREAK

17.00-18.30 FORUM OF YOUNG SCIENTISTS (FYS); POSTER SESSION P3

M. Adamczak, G. Kamińska, J. Bohdziewicz (*Silesian University of Technology, Gliwice, PL*): INFLUENCE OF POLYMER AND CARBON NANOTUBES CONCENTRATION IN NANOCOMPOSITE POLYMER MEMBRANES FOR CAFFEINE RETENTION DURING ULTRAFILTRATION PROCESS

A. Adamiec, L. Przywara (*University of Bielsko-Biala, Bielsko-Biala, PL*): CHANGES IN ORGANIC MATTER COMPOSITION DURING MUNICIPAL SEWAGE TREATMENT

V. Antoš, P. Hrabák, K. Lísková, S. Waclawek, M. Černík (*Technical University of Liberec, Liberec, CZ*): ALNUS GLUTINOSA UPTAKE OF HEXACHLOROCYCLOHEXANES

K. Ćwirko¹, E. Tomczak², D. Szaniawska¹ (1) *Maritime University of Szczecin, Szczecin, PL*; 2) *Lodz University of Technology, Łódź, PL*): EXPERIMENTAL STUDIES ON SEPARATION OF OIL AND PEPTIDES FROM SALINE WASTEWATERS WITH THE USE OF CERAMIC MEMBRANES

K. Ćwirko¹, E. Tomczak², D. Szaniawska¹, R. Buczkowski³ (1) *Maritime University of Szczecin, Szczecin, PL*; 2) *Lodz University of Technology, Łódź, PL*; 3) *Westpomeranian University of Technology, Szczecin, PL*): EXPERIMENTAL STUDIES AND IDENTIFICATION OF FOULING MECHANISM IN THE UF PROCESS OF OILY WASTEWATERS WITH SALT

M. Huculak-Mączka, D. Nieweś, M. Kaniewski, J. Hoffmann, K. Hoffmann (*Wroclaw University of Science and Technology, Wrocław, PL*): MATHEMATICAL DESCRIPTION

OF PURIFICATION OF WET PHOSPHORIC ACID WITH THE USE OF DIISOPROPYL ETHER

M. Kaniewski, D. Poplawski, D. Nieweś, E. Klem-Marciniak, J. Hoffmann, K. Hoffmann (*Wrocław University of Science and Technology, Wrocław, PL*): STUDY OF INFLUENCE OF POTASSIUM SULPHATE ADDITION ON THERMAL STABILITY OF AMMONIUM NITRATE AND POTASSIUM CHLORIDE MIXTURES

R. Kozłowski, J. Przybylska, M. Szwed (*Jan Kochanowski University in Kielce, Kielce, PL*): WATER CHEMISTRY OF SMALL UPLAND RIVERS IN THE ŚWIĘTOKRZYSKIE MOUNTAINS – HEAVY METALS

R. Kozłowski, M. Szwed, K. Jarzyna, J. Przybylska (*Jan Kochanowski University in Kielce, Kielce, PL*): CONCENTRATION OF HEAVY METALS IN THE SNOW COVER AROUND OSTROWIEC ŚWIĘTOKRZYSKI

A. Lempart, E. Kudlek, M. Dudziak (*Silesian University of Technology, Gliwice, PL*): THE OCCURRENCE OF MICROPOLLUTANTS FROM PPCPS MACRO GROUP IN SWIMMING POOL WATER

E. Łaskawiec, M. Dudziak, J. Wyczarska-Kokot (*Silesian University of Technology, Gliwice, PL*): SELECTION OF CONDITIONS OF WATER RECOVERY FROM THE STREAM OF WASHINGS FROM THE SWIMMING POOL WATER SYSTEM

M. Łój-Pilch, A. Zakrzewska, E. Zielewicz (*Silesian University of Technology, Gliwice, PL*): RECOGNITION OF UNFAVOURABLE EVENTS THAT MAY POSE A RISK ON MUNICIPAL SEWAGE TREATMENT PLANT

D. Madej¹, A. Sobczak^{1,2} (1) *Medical University of Silesia, Sosnowiec, PL*; 2) *Institute of Occupational Medicine and Environmental Health, Sosnowiec, PL*): METHODS OF CARBONYL COMPOUNDS DETERMINATION IN AEROSOL GENERATED FROM ELECTRONIC CIGARETTES

J. Mikšíček¹, N. H.A. Nguyen¹, J.S. Thomann², S. Krishnamoorthy², A. Ševců¹ (1) *Technical University of Liberec, Liberec, CZ*; 2) *Luxembourg Institute of Science and Technology, Materials Research and Technology, Belvaux, L*): A STUDY ON BEHAVIOR OF TWO ZNO NANOMATERIALS IN ENVIRONMENTAL WATERS. EFFECT ON RISK ASSESSMENT

E. Nowicka, K. Grübel, A. Machnicka (*University of Bielsko-Biala, Bielsko-Biala, PL*): IMPACT OF CHEMICAL-THERMAL DISINTEGRATION OF ACTIVATED SLUDGE ON EFFICIENCY OF MESOPHILIC AND THERMOPHILIC DIGESTION PROCESS

Z. Orwat, A. Dolhańczuk-Śródka (*University of Opole, Opole, PL*): BIOTICAL AND ABIOTIC FACTORS INFLUENCING THE CORRECT DEVELOPMENT OF *DIONAEA MUSCIPULA* BREEDING

D. Silvestri¹, S. Waclawek¹, E. Kudlek², V. V.T. Padil¹, M. Stuchlík¹, L. Voleský¹, P. Kejzlar¹, M. Černík¹ (1) *Technical University of Liberec, Liberec, CZ*; 2) *Silesian University of Technology, Gliwice, PL*): TiO₂ IMMOBILISED ON BIOPOLYMER NANOFIBERS FOR THE REMOVAL OF BISPHENOL A AND DICLOFENAC FROM WATER

V. Štěpánek^{1,2}, J. Loskot¹, M. Smolík¹, L. Hyšplerová¹, J. Kříž¹ (1) *University of Hradec Králové, CZ*; 2) *Coal Power Plant Chvaletice, CZ*): REDUCTION OF PARTICULATE MATTER AND MERCURY EMISSIONS FROM COAL POWER PLANTS, COMPARATIVE EMISSION MODELING IN CZ-PL REFERENCE POINTS

P. Świsłowski, M. Rajfur, T. Rodziewicz (*University of Opole, Opole, PL*): PHOTOVOLTAICS IN THE INDEPENDENT CHAIR OF BIOTECHNOLOGY AND MOLECULAR BIOLOGY

R. Torres-Mendieta¹, R. Mondragón³, V. Puerto-Belda², O. Mendoza-Yero², J. Lancis², J.E. Juliá³, G. Mínguez-Vega² (1) *Technical University of Liberec, Liberec, CZ*; 2) *Universitat Jaume I, GROC-UJI, Castellón, E*; 3) *Universitat Jaume I., Castellon de la Plana, E*): METAL BASED SOLAR VOLUMETRIC ABSORBERS SYNTHESIZED BY PULSED LASER ABLATION IN LIQUIDS

M. Tylman, K. Snochowska, K. Kamiński (*Lodz University of Technology, Łódź, PL*): DETERMINING THE TOTAL PETROLEUM HYDROCARBONS (TPH) CONTENT IN WATER USING FTIR SPECTROSCOPY

R. Włostowski, A. Janicka, M. Skrzętownicz, J. Woźniak, M. Zawislak (*Wroclaw University of Technology, Wrocław, PL*): SEMI-TECHNOLOGICAL RESEARCHES OF THE BIOMASS IN PRODUCTION PROCESS OF SYNTHETIC GAS USED TO POWER INTERNAL COMBUSTION ENGINES

A. Zakrzewska, M. Łój-Pilch (*Silesian University of Technology, Gliwice, PL*): CONDUITS MATERIAL AND THEIR RELIABILITY ON THE EXAMPLE OF THE SELECTED WATER DISTRIBUTION SYSTEM

I. Zimoch, E. Bartkiewicz (*Silesian University of Technology, Gliwice, PL*): MODELING OF WATER AGE AS AN ELEMENT SUPPORTING THE MANAGEMENT OF THE WATER SUPPLY SYSTEM

I. Zimoch, J. Paciej (*Silesian University of Technology, Gliwice, PL*): RISK OF HEALTH HAZARDS CAUSED BY MICROBIOLOGICAL WATER CONTAMINATION

18.55 Announcement of Verdicts of Award by the Jury for the Best Oral and Poster Presentations of FYS

19.10 Maria and Witold WACŁAWEK (*University of Opole, Opole, PL*): **Closing of the Conference**

19.30 CONFERENCE DINNER

SATURDAY, 7th October 2017

7.00-8.50 BREAKFAST

8.30-12.00 Flow cytometry workshop (for interested persons)

9.00-11.00 EXCURSION (for interested persons)

to the Museum of Papermaking in Duszniki Zdrój

9.00 Departure to Duszniki Zdrój

12.30-14.00 LUNCH