The Third International Conference

Ecological Chemistry 2005

May 20-21, 2005, Chisinau, Republic of Moldova

Conference Program

ACADEMY OF SCIENCES OF MOLDOVA Printing House, 2005

Organizing Committee of the Third International Conference Ecological Chemistry 2005

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The Program contains the timetable of the Plenary Session and Conference Sessions of the third International Conference "Ecological Chemistry 2005", Chisinau, Moldova, May 20-21, 2005.

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The Third International Conference

Ecological Chemistry-2005

Information Note

The Third International Conference *Ecological Chemistry 2005* is held in Chisinau, Republic of Moldova, **May 20-21, 2005** as a part of series of successful conferences organized up to present. It is recognized as an important international conference, which attracts scientists and engineers from the Former Soviet Union states, Europe, U.S.A. and other countries.

Ecological Chemistry as a research area started to develop in Moldova when the First International Ecological Chemistry School was conducted in 1985. Since then the scientific activities in this filed was marked by annual scientific conferences for students, creation of new NGOs, initiation of scientific and public projects funded by such international foundations as ACS, UNDP, CRDF, Tacis, REC-Moldova, development of partnership programs.

The Conferences "Ecological Chemistry" in 1995 and 2002 marked the initiation of the collaboration with the Civilian Research and Development Foundation (CRDF), UNESCO, Ministry of Ecology and Natural Resources of Moldova. This area has been intensively expanding already for 20 years and is one of the priorities for the sustainable development of the National Economy.

The *Ecological Chemistry 2005* conference is organized and co-sponsored by the Academy of Sciences of Moldova (ASM), Moldovan Research and Development Association (MRDA), U.S. Civilian Research and Development Foundation (CRDF), U.S. European Research Office (ERO), U.S. National Science Foundation (NSF), UNESCO, Ministry of Ecology and Natural Resources and Department of Industrial and Ecological Chemistry of the State University of Moldova.

More than 470 participants from 38 countries have acknowledged their commitment to participate to this event.

The conference will provide opportunities for exchange of the latest ideas, presentation and discussion of recent work on aspects of chemical processes

in natural and technological environment, including water, air, soil, wastes, specific issues of sustainable development.

Special sessions are being planned to focus on research in chemical risk assessment, socioeconomic ecology, environmental and ecological policy, legislation and education.

The aim of the conference is to encourage and facilitate the interdisciplinary communication among scientists, engineers, economics and professionals working in ecological areas.

The conference details are available through the website: www.mrda.md or www.mrda.md.

Gheorghe DUCA,

Academician, Professor,
President of the Academy of Sciences of Moldova,
Chairman of the 3rd International Conference "Ecological Chemistry 2005"

The Organizing Committee of the third International Conference "Ecological Chemistry 2005" highly appreciate the financial support and assistance provided by the following agencies:

- Academy of Sciences of Moldova
- Moldovan Research and Development Association
- U.S. Civilian Research and Development Foundation (Award No.MO01-4012-CH-05)
- U.S. National Science Foundation
- American Chemical Society
- European Research Office of the U.S. Army Engineer Research and Development Center (Award 9894-EN-02/No.62558-05-P-0126)
- UNESCO Moscow Office for Armenia, Azerbaijan, Belarus, Georgia, the Republic of Moldova and the Russian Federation
- National Commission of the Republic of Moldova for UNESCO
- Embassy of Federal Germany to the Republic of Moldova
- Federal Ministry for the Environment of Germany
- Embassy of Poland to the Republic of Moldova
- National Ecological Foundation of the Ministry of Ecology and Natural Resources of Moldova
- Department of Industrial and Ecological Chemistry of the State University of Moldova

The Organizing Committee acknowledges the contribution to organization of the 3rd International Conference "Ecological Chemistry 2005" of the following persons: Lidia Romanciuc, Olga Covaleva, Igori Mardari, Vergil Movila, Vlad Bondarenco, Ion Suman, Lidia Virtan, Dragos Duca, Diana Popa, Diana Cucos, Elena Brinza.

Conference Chairmen

Duca Gheorghe - Academician, President of the Academy of Sciences of Moldova

Scurlatov Iurii - Professor, Institute of Chemical Physics, Russian Academy of Sciences

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Mufit Bahadir - Institute of Ecological Chemistry, Braunschweig, Germany

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Samurzina Alma - Al-Farabi Kazakh National University, Alma-Ata, Kazakhstan

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Schwarzenbach Rene - Swiss Federal Institute for Environmental Science and Technology, EAWAG, Dubendorf, Switzerland

Shtamm Elena - Emanuel's Institute of Biochemical Physics, Moscow, Russia

Steinnes Eiliv - Norwegian University of Science and Technology, Trondheim, Norway

VanGundy Seymour -University of California, Riverside, U.S.A.

Zehnder Alexander J.B. - Board of the Swiss Federal Institutes of Technology ETH Board, Zurich, Switzerland

Local Scientific Committee

Mihailescu Constantin - Minister of Ecology and Natural Resources

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Gonța Maria - Moldova State University

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Bobeico Valentin - Moldova State University

Local Organizing Committee

Romanciuc Lidia - Moldovan Research and Development Association Covaliova Olga - World Bank Pilot Water Supply and Sanitation Project Isac Andrei - World Bank Project of Persistent Organic Pollutants Gladchi Viorica - Ecological Chemistry Scientific Laboratory Mardari Igor - Department of Industrial and Ecological Chemistry, Moldova State University

Suman Ion - National Office of United Nation Environmental Programs

Conference Topics

A. Ecological Chemistry of Water

- Monitoring of Water Quality and Environmental Modeling
- Redox Processes in Natural Water
- Water Treatment and Supply

B. Ecological Chemistry of Air

- Chemical Processes in Atmosphere
- Air Quality Control and Management
- Impact of Air Emissions on Human Health

C. Ecological Chemistry of Soil

- Soil Contamination and Pollution Prevention
- Ecological Agriculture
- Ecological Technology in Agricultural Sector

D. Waste Management and Cleaner Production

- Industrial Pollution
- Solid Waste Management
- Persistent Organic Pollutants Management
- Cleaner Production and Sustainable Business

E. Chemical Risk Assessment

- Impact of Chemicals on Human Health and Environment
- Ecotoxicology
- Chemical Risk Mitigation and Analysis

F. Ecological Policy and Legislation

- Ecological Legislation
- Community Involvement and Education
- Sustainable Development

G. Electrochemistry and Ecology

- Electrochemical methods of environmental protection
- Ecological problems in electrochemical production
- Electrochemical methods of natural and waste water treatment and conditioning

Timetable of The Third International Conference: Ecological Chemistry 2005

May 20 Plenary Session

The Palace of Republic, 2nd floor, 16 Maria Cibotari str., Chisinau, Republic of Moldova

May 21 Conference Sections

Moldova State University, 60 Mateevici str., Chisinau, Republic of Moldova

	Section	Location	Room
A.	Ecological Chemistry of Water	Main Building, 2 nd Floor	Conference hall
В.	Ecological Chemistry of Air	Building 4 3 rd floor	317
C.	Ecological Chemistry of Soil	Building 4 2 nd floor	222
D.	Waste Management and Cleaner Production	Building 4 4 th floor	405
E.	Chemical Risk Assessment	Building 2 A 2 nd floor	6
F.	Ecological Policy and Legislation	Building 4 3 rd floor	319
G.	Electrochemistry and Ecology	Building 4 2 nd floor	213
	Closing session	ASM	Conference hall

May 22 Round Table

Academy of Sciences of Moldova, Boulevard Stefan cel Mare 1, Chisinau, Republic of Moldova

Méthodes électrochimiques de contrôle et destruction des pollutants organiques et inorganiques. Working Language – French.

The Third International Conference:

Ecological Chemistry 2005

Program

Friday, May 20, 2005

8.00 - 9.00 Participant Registration 9.00 - 9.05 **Conference Opening**

WELCOME SPEECHES

9.05 – 9.30 Marian Lupu Speaker of Parlament of the

Republic of Moldova

Heather M. Hodges U.S. Ambassador to the

Republic of Moldova

Constantin Minister of Ecology and Natural

Mihailescu Resources

Marie Prchalova Program Specialist for Science,

UNESCO Office for Armenia, Azerbaijan, Belarus, Georgia, the Republic of Moldova and

Russian Federation

Lawrence Goldberg Senior Adviser, U.S. National

Science Foundation

Constantin Rusnac General Secretary, National

Commission of the Republic

of Moldova for UNESCO

Gheorghe Rusnac Rector of the Moldova State

University

9.30 – 10.00 Gheorghe Duca, Moldova

ECOLOGICAL CHEMISTRY.

ASCHIEVEMENTS AND PERSPECTIVES

10.00 - 10.40 Coffee break

PLENARY SESSION

10.40 – 11.00	Anatolii Purmali, Russia CHEMICAL REACTIONS IN THE ATMOSPHERIC WATER
11.00 – 11.20	Vladislav Goncharuk , Ukraine WATER PROBLEMS. THE STATE AND THE FUTURE OF THE WATER CHEMISTRY AND WATER SUPPLY
11.20 – 11.40	John Malin, USA STRATEGIES FOR SOLVING THE PROBLEM OF ARSENIC POLLUTION IN NATURAL WATER
11.40 – 12.00	Alma Samurzina, Kazahstan ECOLOGICAL CHEMISTRY AS A SCIENCE AND EDUCATION PROCESS
12.00 – 12.20	Maria Jitaru, Romania ELECTROCHEMICAL TECHNICS FOR A CLEANER ENVIRONMENT
12.20 – 14.00	Lunch
14.00 – 14.20	Iurii Skurlatov, Russia THE INTRODUCTION IN THE ECOLOGICAL CHEMISTRY OF THE AQUATIC MEDIUM
14.20 – 14.40	Isaak Bersuker, USA USE OF COMPUTATIONAL CHEMISTRY FOR COMPUTER-AIDED TESTING AND PREDICTION OF TOXICITY

14.40 – 15.00	Boguslaw Wilkomirski, Poland POLYAROMATIC HYDROCARBONS (PAHs) – THE INTERESTING POLLUTANTS OF PEATLAND ECOSYSTEMS
15.00 – 15.20	Tatyiana Rakitskaya, Ukraine ECOLOGICAL CATALYSIS. THEORY AND PRACTICE
15.20 – 16.00	Coffee break
16.00 – 16.20	Muefit Bahadir, Germany POLYCHLORINATED TERPHENYLS (PCT) - SYNTHESIS, ANALYSIS AND BEHAVIOR UNDER THERMAL STRESS
16.20 – 16.40	Seimour VanGundy, USA THE DEVELOPMENT OF MOLECULAR BIOLOGY IN MOLDOVA TO ADDRESS AGRICULTURAL AND ENVIRONMENTAL ISSUES.
16.40 – 17.00	Matei Macoveanu, Romania KEY ENVIRONMENTAL RISK FACTORS AND IMPACT CONSIDERATION ISSUES FOR ALCOHOLIC BEVERAGES INDUSTRY
17.00 – 17.20	Serafim Andries, Moldova SOURCE AND FORM OF THE CHEMICAL DEGRADATION OF SOIL AND METHODS OF ITS REDUCTION
18.00 - 20.30	Cultural Program

ECOLOGICAL CHEMISTRY OF WATER

Co-Chairs: Iurii Skurlatov, Russia

Vladislav Goncearuk, Ukraine

Tudor Lupascu, Moldova

Secretary: Viorica Gladchi, Moldova

Saturday, May 21, 2005

09.00 - 09.15	Evgheni Gopchenko, Ukraine THE ELABORATION OF STRATEGIES OF WATER REGIME AND QUALITY MANAGEMENT BASED ON RESULTS MATHEMATIC SIMULATIONS
09.15 – 09.30	Gregory Cutter, USA PHOTOCHEMICAL EFFECTS ON THE REDOX CYCLING OF ARSENIC IN SURFACE WATERS
09.30 – 09.45	Tudor Lupascu, Moldova REMOVALOF HYDROGEN SULPHIDE, AMMONIA AND NITRITE IONS FROM WATER SOLUTIONS USING MODIFIED ACTIVE CARBONS
09.45 – 10.00	Viorel Patroescu, Dinu Laurentiu, Romania UPGRADING OF RAMNICU VALCEA WWTP BIOLOGICAL STEP BY INTEGRATION OF THE NUTRIENT REMOVAL PROCESSES
10.00 – 10.10	Trahel Vardanian, Armenia ON THE ISSUES OF MODELING OF ENVIRONMENTAL PROCESSES OCCURRING IN RIVER WATER
10.10 – 10.20	Elena Shtamm, Russia THE ROLE OF BIOTESTING METHODS IN THE

10.20 – 10.30	Ingrid Buciscanu, Romania PREPARATION AND CHARACTERIZATION OF SOME Fe-BASED PREHYDROLYZED COAGULANTS FOR WATER AND WASTEWATER TREATMENT
10.30 – 10.40	Irina Makovetskaya, Ukraine THE MONITORING INVESTIGATION OF SEAWATER QUALITY BETWEEN THE OUTFALL OF DANUBE RIVER AND DNIESTROVSK COASTAL LAKE
10.40-10.50	Josef Malina, USA START-UP STUDYING OF THE ANAEROBIC TREATMENT PROCESS
10.50 – 11.00	Serghei Kalyuzhnyi, Russia NEW CONCEPTS OF MICROBIAL NITROGEN REMOVAL FROM WASTEWATER
11.00 – 11.20	Coffee break
11.20 – 11.30	Ion Toderash, Moldova THE DYNAMICS OF METALS IN FISH FROM PRUT RIVER
11.30 – 11.40	Eiliv Steinnes, Norwey METAL SPECIATION IN PRUT RIVER SEDIMENTS STUDIED BY CHEMICAL FRACTIONATION TECHNIQUES
11.40 – 11.50	Viorica Gladchi, Moldova THE STUDY OF REDOX CONDITIONS IN THE DNIESTER RIVER

11.50 – 12.00	Nicoleta Oprea, Romania THE SIMULATION OF THE MECHANISMS OF RETENTION OF SUSPENSIONS IN FILTERING BED. THE APPLICATION OF THE THEORY OF SIMILARITIES FOR THE PROCESS OF WATER
	FILTERING
12.00 –12.10	Katherine Pershina, Ukraine MODELING OF THE KINETICS OF PHENOL DERIVATIES AND PRODUCTS OF THEIR OXIDATION TRANSFORMATIONS IN NATURAL WEAKLY MINERALIZED BASINS
12.10 – 12.20	Sychev Mikhail, Ukraine ENVIRONMENTAL APPLICATION OF CATALYSIS IN WATER: A REWIEW
12.20 – 12.30	Andrei Bogolepov, Ukraine SORPTION-DESORPTION PROCESSES IN SYSTEM U(VI)- MONTMORILLONITE IN THE PRESENCE OF THE COMPLEXING AGENTS
12.30 – 12.40	Tatiana Strikalenko, Ukraine ECOTOXICOLOGY OF THE DRINKING WATER
12.40 – 12.50	Marina Gladchenko, Ukraine INTEGRATED BIOLOGICAL (ANAEROBIC- AEROBIC) AND PHYSICO-CHEMICAL TREATMENT OF BAKER'S YEAST WASTEWATER
12.50-13.00	T.V. Ereshko, Ukraine OXIDATION-REDUCTION PROCESSES OCCURING DURING NITROGEN COMPOUNDS REMOVAL FROM WATER
13.00-14.30	Lunch
14.30-15.30	Posters presentation

Banica Dobre, Romania

MULTIFUNCTIONAL FLOATING EXCAVATOR (PELICAN B580) DESIGNED FOR THE ECOLOGICAL OPERATIONS IN WATER

Andrei Bunescu, Moldova

COMPLEMENTARITY OF THE PHOTO-AND BIODEGRADATION PROCESSES FOR POLLUTANTS REMOVAL FROM THE AQUATIC COMPARTMENTS: APPLICATION TO 2-AMINO-BENZOTHIAZOLE

Ruslan Borodaev, Moldova

ON THE PRELIMINARY SIGNS OF ALTERATION OF THE ECOLOGICAL STATE OF WATERBODIES

Oleg Cadocinicov, Moldova

PESTICIDE MIGRATION IN THE UNSATURATED ZONE

Irina Kosygina, Ukraine

COMBINED INVESTIGATION AND DEDURISATION OF WATER BY POLYACRILIC CATION EXCHANGERS

Alexei Maftuleac, Moldova

WATER DEDURISATION AND UTILIZATION OF WASTES GENERATED BY POWER STATIONS DURING THIS PROCES

Aliona Moldoveanu, Moldova

HOUSEHOLD WASTEWATER - A SOURCE OF POLLUTION OF WATER RESOURCES

Constantin Moraru, Moldova

A NEW HYDROLOGIC AND GEOCHEMICAL CLASSIFICATION OF NATURAL WATERS

Vitaliy Pustovit, Ukraine

THE INVESTIGATION OF COAGULATIVE ACTIVTY OF ALUMINIUM AND IRON CONTAINING COAGULANTS SDS

Vasile Rusu, Moldova

THE CONTENT OF VARIOUS FORMS OF PHOSPHOROUS IN RIVER PRUT

Leonid Romanov, Moldova

NATURAL WATER FLUORINE DECONTAMINATION BY ELECTRODIALYSIS METHOD

Victoriya Tobilko, Ukraine PURIFICATION SURFACE WATER FROM

RADIONUCLIDES

Tatyana Timoshenko, Ukraine

USE OF FERRITE METHOD IN THE PROCESSES OF PURIFICATION OF URANIUM CONTAINING WATER

16.00 – 17.00 Closing session (in the Conference Hall of The Academy of Sciences of Moldova)

17.30 - 21.30 Cultural program

ECOLOGICAL CHEMISTRY OF AIR

Co-Chairman: Anatolii Purmali, Russia

Alexandru Crachun, Moldova

Valeriu Cazac, Moldova

Secretary: Alexandr Aculinin, Moldova

Saturday, May 21, 2005

09.00 - 09.15	James Boggs, USA THERMODYNAMICS OF RADICALS INVOLVED IN ATMOSPHERIC REACTIONS
09.15 – 09.30	Ion Bahnarel, Moldova SOME ASPECTS OF THE RADIOECOLOGIC MONITORING IN THE REPUBLIC OF MOLDOVA
09.30 – 09.45	Boris Belan, Russia THE CONTENT OF PLUME FROM INDUSTRIAL SOURCES AND THE STRUCTURE OF AEROSOL FIELDS ABOVE CITIES ACCORDING TO THE DATA OF AIRPLANE PROBING AND ON-LAND MEASUREMENTS
09.45 – 10.00	Ruben Asatryan, Armenia THE CONTROL OF CHEMICAL CONTENT OF GASEOUS POLLUTIONS IN THE ATMOSPHERE USING THE INFRARED MONITORING METHOD
10.00 – 10.15	Bradley Flowers, USA PHOTOLYSIS QUANTUM YIELDS FOR PEROXYACETYL NITRATE

10.15 – 10.30	Igori Karoli, Russia 1973-2004 ANNUAL VARIATION OF OZONE CONTENT ON THE TERRITORY OF NIS-COUNTRIES ACCORDING TO THE MEASUREMENTS FROM AN ON-LAND NETWORK OF STATIONS
10.30 – 10.45	Martin Misakyan, Armenia THE AGRICULTURAL CONTROL AND MEASUREMENT SYSTEM "ECOLOGY- MICROCLIMATE"
10.45 – 11.00	Svetlana Murashko, Ukraine CONDITIONS OF ANALYSIS OF AIR ENVIRONMENT POLLUTION BY PESTICIDES
11.00 – 11.20	Coffee break
11.20 – 11.35	Konrad Muller, Germany AN INTEGRATED EFFORT FOR A BETTER UNDERSTANDING OF ATMOSPHERIC MULTIPHASE CHEMISTRY: LABORATORY, MODELING AND FIELD STUDIES
11.35 – 11.50	Alice Raducanu, Romania TECHNICAL SOLUTIONS FOR THE ATTENUATION OF THE OCCUPATIONAL NOXES AT THE WORKPLACES
11.50 – 12.05	Vladimir Brega, Moldova ACIDIFYING EMISSIONS AND DEPOSITIONS IN THE NORTH PART OF THE REPUBLIC OF MOLDOVA
12.05 – 12.20	Gavriil Gilca, Moldova MONITORING OF AIR QUALITY AND RELATED RESPIRATORY AND CARDIOVASCULARY DISEASES IN MOLDOVA

12.20 – 12.35	Leonid Shkaraputa, Ukraine ELABORATION OF AIR CONTROL METHODS FOR THE TESTING OF SULFOCARBATHYON-K IN AGRICULTUR E
12.35 – 12.50	Alexandr Voloh, Russia THE INVESTIGATION OF THE CONTENT OF ATMOSPHERIC AIR IN KALMYKIA
12.50 – 13.00	Mihail Zapevalov, Russia MONITORING OF VOLATILE ORGANIC COMPOUNDS POLLUTION OF AMBIENT AIR
13.00 - 14.30	Launch
14.30-15.30	Posters presentation
	Boris Belan, Russia LONG-TERM MEASUREMENT OF THE CONCENTRATION OF OZONE IN THE AEROSOLS FROM TOMSK AND THEIR POTENTIAL CAUSES
	Boris Belan, Russia THE INVESTIGATION OF THE TRANSFORMATION OF COMPONENTS OF PLUME FROM INDUSTRIAL ENTERPRISES
	Andrey Kiselyov, Russia THE SIMULATION OF THE ATMOSPHERIC CONSEQUENCES OF BIG-SCALE FOREST FIRES OF THE LAST YEARS IN SIBERIA AND FAR-EAST
	Tatyana Rakitskaya, Ukraine CATALYSTS FOR LOW-TEMPERATURE CARBON MONOXIDE OXIDATION FOR RESPIRATORY PROTECTIVE DEVICES

Tatyana Rakitskaya, Ukraine PERSPECTIVE REAGENT METHODS FOR AIR PURIFYING TO REMOVE OZONE MICROCONCENTRATIONS

Alexandr Aculinin, Moldova SMOKE AEROSOLS OVER MOLDOVA FROM THE FIRES OCCURRED IN THE WESTERN RUSSIA, BELARUS AND UKRAINE DURING THE AUGUST – SEPTEMBER, 2002

Vladimir Bogillo, Ukraine SOURCES, PARTITIONING AND TRANSPORT OF HALOGENATED ORGANICS IN ANTARCTIC ENVIRONMENT

Mariya Bazylevska, Ukraine
PARTITIONING OF VOLATILE ORGANIC
POLLUTANTS BETWEEN AIR AND
ENVIRONMENTAL INTERFACES

Oksana Rahmanova, Russia COMPUTER STUDY OF ATMOSPHERIC MOISTURE INTERACTION WITH GREENHOUSE GASES

Vladimir Brega, Moldova UNCERTAINTY MANAGEMENT AND QUALITY ASSURANCE QUALITY CONTROL IN NATIONAL GHG INVENTORY

Olga Covaliov, Moldova
THE NEW SOLUTIONS ON CATALYTICAL
COMBUSTION OF HYDROCARBON FUEL AND
AIR EMISSIONS TREATMENT

Alexandru Craciun, Moldova

THE EVALUATION OF THE IMPACT
OF HOMOGENOUS CATALYST ON
THE REDUCTION OF THE CONTENT
OF POLLUTING EXHOUSTS INTO THE
ATMOSPHERE FROM ENGINES WITH
INTERNAL COMBUSTION

Serghei Dmitriev, Moldova

CHALCOGENIDE GLASS SEMICONDUCTORS FOR GAS SENSORS APPLICATIONS

Valerii Yurlov, Kazahstan

THE WAYS OF IMPROVEMENT OF THE ELECTRIC APPLIANCES FOR DUST CAPTURE

Igor Ledenev, Ukraine

CATALYTIC DECOMPOSITION OF NITROUS OXIDE (N₂O) OVER IRON CONTAINING ZEOLITES AND RELATED MATERIALS

16.00 – 17.00 Closing session (in the Conference Hall of The

Academy of Sciences of Moldova)

17.30 - 20.30 Cultural program

ECOLOGICAL CHEMISTRY OF SOIL

Co-Chairs: Wilkomirski Boguslaw, Poland

Seymour D. Van Gundy, USA

Maria Gonta, Moldova

Secretary: Veaceslav Boldescu, Moldova

Saturday, May 21, 2005

09.00 - 09.15	Valentin Ungureanu, Moldova ECOLOGICAL AGRICULTURE IN MOLDOVA
09.15 – 09.30	Huseyin Ozkeser, Northern Cyprus EXTENT OF HEAVY METAL CONTAMINATION OF SOIL AND PLANTS NEAR AN ABANDONED COPPER MINE IN NORTH WESTERN CYPRUS
09.30 – 09.45	Maria Gonta, Moldova FORMATION AND INHIBITION OF N-NITROSOMETHYLUREA AND MORPHOLINE IN THE SIMULATED GASTRIC JUCE
09.45 – 10.00	Martha Orozco-Cardenas, USA HYDROGEN PEROXIDE AND NITRIC OXIDE PLAY DIFFERENT ROLES IN PLANT DEFENCE RESPONSES
10.00 – 10.15	Lucian Halmagean, Romania THE INFLUENCE OF NITROGEN FERTILIZERS ON THE ATMOSPHERIC NITROGEN FIXATION PROCESSES FOR VEGETABLES
10.15 – 10.30	Malgorzata Suska-Malawska, Poland POLYAROMATIC HYDROCARBONS CONCENTRATION IN PEAT FROM DIFFERENT PEATLANDS LOCATED IN SOUTHERN AND SOUTH - WESTERN POLAND

10.30 – 10.45	Irina Popescu, Romania THE IMPROVING OF SOME HORTICULTURAL CHEMICAL PROPERTIES BY TREATMENT WITH AMMONIUM MALEATE-VINYL ACETATE COPOLYMER
10.45 – 11.00	Fliur Macaev, Moldova ECOLOGICAL CHEMISTRY AND STEREOSELECTIVE ORGANIC SYNTHESIS
11.00 – 11.20	Coffee break
11.20 – 11.35	Susu Gheorghe, Moldova THE APPLICATION OF HERBECIDES IN MOLDOVA'S AGRICULTURE
11.35 – 11.50	Nicolae Sarpe, Romania HERBICIDES INFLUENCE UPON CERTAIN QUALITATIVE FEATURES OF WINE
11.50 – 12.05	Tamara Leah, Moldova NICKEL DISTRIBUTION IN CHATEN OF CARBONATIC CHERNOZEMS
12.05 – 12.20	Leonid Volosciuc, Moldova BIOLOGICAL PREPARATIONS IN ECOLOGICAL AGRICULTURE
12.20 –12.35	Kakha Nadiradze, Georgia THE ORGANIC AND NON-ORGANIC FARMING IN GEORGIA
12.35 – 12.50	Elena Demchenko, Moldova ECOLOGICAL ASPECTS OF THE FUNCTIONING OF SOIL INVERTEBRATES IN AGROCENOSES
13.00 – 14.30	Lunch
14.30 - 15.30	Poster session

Lucian Halmagean, Romania

BIO FERTILIZERS – AN IMPORTANT NITROGEN SOURCE FOR SOWING VEGETABLES

Lucian Halmagean, Romania

THE PROCESS OF BIOLOGICAL FIXATION OF ATMOSPHERIC NITROGEN UNDER THE INFLUENCE OF FERTILIZERS WITH MACRO AND MICROELEMENTS

Larysa Anisimova, Ukraine SOIL POLLUTION IN UKRAINE REGION

M. Rapchea, Moldova

OPPORTUNITIES FOR THE DEVELOPMENT OF ECOLOGICAL HORTICULTURE IN MOLDOVA

E. Emnova, Moldova

RESISTANCE OF BACTERIAL COMMUNITY IN SOYBEAN RHIZOSPHERIC SOIL POLLUTED BY COPPER

Elena Etcu, Moldova

THE ACTION OF THE BIOLOGICALLY ACTIVE PHYTOSTIM SUBSTANCE OF POD ACTIVITY IN THE PLANTS OF TWO SORTS WINTER WHEATS

Igor Iazlovetsky, Moldova

THE MONITORING OF ACARI-FAUNA OF APPLE GARDENS AND ITS SENSIBILITY TO PESTICIDES – A WAY TO THE FORMATION OF THE ECOLOGIC STABLE AGROCENOSIS

Igor Iazlovetsky, Moldova

THE MANAGEMENT OF RESISTANCE OF POPULATIONS OF CODLING MOTH

- 16.00 17.00 Closing session (in the Conference Hall of The Academy of Sciences of Moldova)
- 17.30 21.30 Cultural program

WASTE MANAGEMENT AND CLEANER PRODUCTION

Co-Chairs: Matei Macoveanu, Romania

Bahadir Muefit, Germany Valentin Bobeica, Moldova

Secretary: Tatiana Tugui, Moldova

Ion Barbarosa, Moldova

Saturday, May 21, 2005

9.00-9.15	Marta Sebastian, Poland THE IMPACT OF WASTE COMPOSITION ON THE MUNICIPAL WASTE MANAGEMENT STRATEGIES IN EUROPEAN CITIES
9.15-9.30	Valery Rudic, Moldova NEW BILOGIC ACTIVE SUBSTANCES DERIVED FROM OENOTANNINS FOR MEDICINE AND AGRICULTURE
9.30-9.45	Tatiana Tugui, Moldova SOLID WASTE MANAGEMENT IN THE REPUBLIC OF MOLDOVA
9.45-10.00	Marek Wasilewski, Poland ECOLOGICAL AND ECONOMICAL ADVANTAGES OF THE IMPLEMENTATION OF CLEANER PRODUCTION AT INDUSTRIAL PLANTS
10.00-10.15	David Lempert, Russia THE PROBLEMS OF GENERATION OF NEW SMOKELESS – GENERATING COMPOSITIONS WITH LOW CONTENTS OF TOXIC COMBUSTION PRODUCTS FOR VEHICLE SAFETY SAKS
10.15-10.30	Madalina Zanoaga, Romania POLYMERIC WASTE RECYCLING BY BLENDING. PREPARATION AND CHARACTERIZATION OF

NOVEL SPE/PA BLENDS

10.30-10.45	Pavel Chintea, Moldova AGROINDUSTRIAL WASTE AS A SOURSE OF BIOLOGICAL ACTIVE SUBSTANCES FOR ECOLOGICAL APPLICATIONS
10.45-11.00	Carmen Zaharia, Romania ENVIRONMENTAL IMPACT ASSESSMENT GENERATED BY WASTE DEPOSITION INTO A ROMANIAN URBAN LANDFILL
11.00-11.20	Coffee break
11.20-11.35	Constantin Builimaga, Moldova LANDFILLS OF MUNICIPAL WASTE - A SOURSE OF CONTINUOUS ENVIRONMENTAL POLLUTION
11.35-11.45	Victor Covaliov, Moldova NEW SOLUTIONS FOR BIOCHEMICAL PROCESSES OF WASTE WATER TREATMENT AND BIOGAS GENERATION
11.45-12.00	Svitlana Sukhorebra, Ukraine MAIN OUTCOMES OF DEVELOPING A PCBS INVENTORY IN UKRAINE
12.00-12.15	Ion Barbarasa, Moldova IMPACT OF POLYCHLORINATED BIPHENYLS (PCBS) ON THE HUMAN HEALTH AND ENVIRONMENT IN THE REPUBLIC OF MOLDOVA
12.15 -12.25	Annie Shoumkova, Bulgaria PHYSIC-CHEMICAL AND MORPHOLOGICAL PROPERTIES OF FLY ASH FROM "VARNA" POWER PLANT, BULGARIA
12.25 -12.40	Marius Taranu, Moldova THE ASSESSMENT OF GHG EMISSIONS FROM FERROUS METAL PRODUCTION FOR THE PERIOD OF 1990-2002 IN MOLDOVA

12.40 -13.00	Discussion
13.00 -14.30	Lunch
14.30-14.45	Oleg Belyi, Belarusi MONITORING OF POPS PESTICIDES LANDFILL
14.45-15.30	Liliana Juc, Moldova STUDY AND ANALYSIS OF A LANDFILL IN THE REPUBLIC OF MOLDOVA
15.00-15.15	Gabrielle Charlotte Chitanu, Romania POLYMERS FOR ENVIRONMENT PROTECTION
15.15-15.30	Valentin Bobeica, Moldova «CLEANER PRODUCTION» - INTEGRATIVE PROCEDURES FOR POLLUTION PREVENTION AND CHEMICALS MANAGEMENT
14.30-15.30	Poster presentation
	Oleg Bolotin, Moldova CHOICE OF THE PARAMETERS OF MOLDAVIAN DIATOMITE FOR THE OBTAINING OF SORBENTS FOR WATER
	Ilie Bucur, Romania OPTIMIZATION OF BIODIESEL PRODUCTION IN SMALL ECOLOGICAL FARMS
	Constantin Bulimaga, Moldova THE LANDFILLS INFLUENCE ON THE ENVIRONMENTAL
	Angela Cincilei, Moldova MANAGEMENT OF BENZOTHIAZOLE POLLUTANTS BY SELECTION AND USE OF MICROORGANISMS

Ioan Cojocaru, Romania

TEHNICAL SOLUTIONS FOR THE CONSTRUCTION OF LANDFILL FOR SOLID WASTE IN HOLBOCA, IASI

T. Dudnicenco, Moldova

THE ALGAE USING IN THE WASTEWATER TREATMENT

Eugen Iorga, Moldova

OPTIMIZATION OF THE PROCESS TO OBTAIN SEEDS FROM DRIED GRAPE

Aliona Mereuta, Moldova

STUDY OF THE ADRENALINE EXTRACTION PROCESS FROM SUPRARENAL GLANDS AND METHOD FOR ITS STABILIZATION

Stephan Robu, Moldova

FOR THE QUESTION OF FINDING EFFICIENT INFORMATION BEARERS ON THE BASE OF PYRANE OR OXAZINE PHOTOCHROMIC MATERIALS

Leonid Romanov, Moldova

USING OF CARBONATE WASTES FROM MINING INDUSTRY IN THE REPUBLIC OF MOLDOVA

16.00-17.00 Closing session (in the Conference Hall of The Academy of Sciences of Moldova)

17.30 – 20.30 Cultural program

CHEMICAL RISK ASSESSEMENT

Co-Chairs: Isaac B. Bersuker, USA

Daniel Schlenk, USA Maria Duca, Moldova

Secretary: Igor Mardari, Moldova

Saturday, May 21, 2005

09.00 – 09.15	Mansour Zakikhani, USA RISK-BASED DECISION-MAKING MODELING SYSTEM FOR SITE CLEANUP SUPPORT
09.15 – 09.30	Piotr Gutry, Poland COMPARISON OF ORGANOCHLORINE PESTICIDES AND PCBS LEVELS IN ARCTIC AND ANTARCTIC LIMPETS – TESTUDINALIA TESSELATA AND NACELLA CONCINNA
09.30 – 09.45	Daniel Schlenk, USA EVALUATION OF MUSCLE AND LIVER TISSUES OF THE WHITE SHARK CARCHARODON CARCHARIASI FOR THE OCCURRENCE OF ORGANOCHLORINE PESTICIDES IN SOUTH AFRICA
09.45 – 10.00	Shane Snyder, USA OCCURENCE AND ANALYTICAL METHODS FOR ENDOCRINE DISRUPTORS AND PHARMACEUTICALS
10.00 – 10.15	Alla Udalova, Russia APPLICATION OF BIOINDICATION APPROACH FOR AN ASSESSMENT OF COMBINED TECHNOGENIC IMPACTS ON THE ENVIRONMENT

10.15 – 10.30	Vadim Zubritskii, Belorusi THE RISK ASSESSMENT OF THE TRANSFORMATION OF NATURAL ECOSYSTEMS OF BELARUSI UNDER THE IMPACT OF ATMOSPHERIC MAN-CAUSED NITROGEN AND SULFUR
10.30 – 10.45	Yuri Chaika, Ukraine RISK ASSESSMENT OF THIRAM CONTAINING PESTICIDES EXPOSURE TO OPERATOR AND POPULATION
10.45 – 11.00	Andrey Bubnov, Russia THE METHOD OF SELECTION OF PROCEDURES FOR WASTEWATER TREATMENT WHILE TAKING INTO CONSIDERATION THE ECOLOGICAL RISK FACTORS
11.00 – 11.20	Coffee break
11.20 – 11.35	Strikalenko Tatiana, Ukraine ECOTOXICOLOGY OF THE DRINKING WATER
11.35 – 11.50	Madalina Zanoaga, Romania REDOX MEDIATED SECONDARY EFFECTS OF FOOD ADDITIVES: CASE STUDY RELATED TO PRESERVATIVES
11.50 – 12.05	Oleg Bogdevich, Moldova
	THE EVALUATION OF HEAVY METAL SOURCES IN THE REPUBLIC OF MOLDOVA

12.20 –12.35	Nicolae Opopol, Moldova WATER MANAGEMENT AND HUMAN HEALTH PRINCIPAL THREATS
12.35 – 12.50	Elena Zubcov, Moldova THE DYNAMICS OF METALS IN DNIESTER RIVER ECOSYSTEMS
12.50 – 13.05	Tatiana Stratulat, Moldova THE QUANTITATIVE EVALUATION OF THE CONTENT OF SOME PRIORITY PESTICIDES IN THE PLANT CULTIVATION AND WATER PRODUCTION
13.05 – 14.30	Lunch
14.30-15.30	Poster session
	Mihai Revenco, Moldova THE CONTENT OF HEAVY METALS IN FOOD PRODUCTS TINNED IN LACQUERED CANS
	THE CONTENT OF HEAVY METALS IN FOOD

Raisa Ivanova, Moldova

CALIFORNIA, USA

THE EVALUATION OF PEROXYL RADICAL SCAVENGING CAPACITY OF MOLDOVAN GRAPE AND WINE IN VITRO: PRELIMINARY STUDY

Victor Lupascu, Moldova
THE EVIDENCE OF MARKER CFP IN
TRANSGENIC PLANTS

Alexei Levitchi, MoldovaGENETIC CONTROL OF GMP USING *NOS*TERMINATOR

15.30 – 16.30 Closing session (in the Conference Hall of The Academy of Sciences of Moldova)

17.30 – 20.30 Cultural program

Ecological Policy and Legislation

Co-Chairs: Galina Dragalina, Moldova

Anca Duta, Romania

Constantin Mihailescu, Moldova

Secretary: Ion Suman, Moldova

Saturday, May 21, 2005

09.15 – 09.30 V.V. Lagutov, Russia
SUSTAINABLE DEVELOPMENT - THE BASIC
SYSTEM OF WORLDS STRUCTURE OF THE
NEW CENTURY, ALREADY REQUIRES A
NEW ENVIRONMENTAL REGULATION AND
EDUCATION

09.30 - 09.45	C. Manolache, Moldova SUSTAINABLE DEVELOPMENT: THE INFLUENCE ON THE NATIONAL SECURITY
09.45 – 10.00	A. Duta, Romania TRAINING LINE FOR SUSTAINABLE DEVELOPMENT IN THE TRANSILVANIA UNIVERSITY OF BRASOV, ROMANIA
10.00 – 10.15	S. Covalchuk, Ukraine THE STRATEGIC CONCEPT OF SUSTAINABLE DEVELOPMENT IN THE STAGE OF FORMATION OF THE UKRAINIAN STATE SYSTEM
10.15 – 10.30	I. Subotin, Moldova SOME LEGISLATIVE AND ECOLOGICAL ASPECTS IN PRODUCING AND SELLING GENETICALLY MODIFIED FOOD PRODUCTS IN THE REPUBLIC OF MOLDOVA
10.30 – 10.45	S. Deriagina, Russia THE FORMATION OF THE ECOLOGICAL POLICY OF MUNICIPALITIES WITH THE PURPOSE OF ASSURANCE OF TRANSITION TO SUSTAINABLE DEVELOPMENT
10.45 – 11.00	O. Cazantseva, Moldova THE BASIC APPROACHES TO THE FORMATION OF THE ECOLOGICAL MANAGEMENT SYSTEMS
11.00 – 11.20	Coffee Break
11.20 – 11.40	V. Nazarenco, Russia NEW APPROACHES IN THE ENVIRONMENTAL EDUCATION OF THE POPULATION
11.40 – 11.55	C. Modrogan, Romania NEW FERTILIZERS - A SUPPORT OF A SUSTAINABLE AGRICULTURE

11.55 – 12.10	A.Kucinscaya, Ukraine THE EXPEDITION INVESTIGATIONS OF SURFACE WATERS OF THE DNIESTER'S RIVER BASIN WITHIN THE LIMITS OF "PODOLSKY TOVTRI" INSTITUTE
12.10 – 12.25	C. Blajin, Moldova ENVIRONMENTAL EDUCATION – A BRANCH OF ACTIVITY OF THE REGIONAL ENVIRONMENTAL CENTER OF MOLDOVA
12.25 –12.40	L. Namolovan, Moldova ENVIRONMENTAL EDUCATION IN THE 21ST CENTURY
12.40 – 13.00	G. Dragalina, Moldova PECULIARITIES OF THE ENVIRONMENTAL EDUCATION IN THE TEXTBOOKS OF HIGH SCHOOL LEVEL EDUCATION
13.00 - 14.30	Lunch
14.30-15.25	Poster session
	L. Tuszynska, Poland ENVIRONMENTAL EDUCATION OF LOCAL COMMUNITIES
	M. Aladzhev, Russia THE ENVIRONMENTAL ASSESSMENT OF THE PROSPECTIVE ACTIVITY IN THE TATARSTAN REPUBLIC
	V. Gladchi, Moldova THE ROLE OF NONGOVERNMENTAL ORGANIZATIONS IN ENVIRONMENTAL EDUCATION OF THE POPULATION
15.30 – 16.30	Closing session (in the Conference Hall of The Academy of Sciences of Moldova)
17.30 - 20.30	Cultural Program

ELECTROCHEMISTRY AND ECOLOGY

Co-Chairs: Alexandr Dicusar, Moldova

Victor Covalev, Moldova

Secretary: Olga Covaleva, Moldova

Saturday, May 21, 2005

09.00 - 09.15	P.M. Solojenkin, Russia THEORETICAL ASPECTS AND PRACTICAL APPLICATION OF GALVANIC CHEMICAL PROCESS FOR WASTEWATER TREATMENT
09.15 – 09.30	V.V. Covalev, Moldova THE DEVELOPMENT OF GALVANIC CHEMICAL TECHNOLOGY FOR THE PURIFICATION OF INDUSTRIAL AND DRINKING WATERS
09.30 – 09.45	I. Simineceanu, Romania RECOVERY OF AMMONIUM SULFATE FROM WATERS BY ELECTRODIALYSIS
09.45 – 10.00	E. Stezeryanskhii, Ukraine OXIDATIVE DESTRUCTIONS OF SURFACTANTS IN WASTE WATERS BY GLOW DISCHARGE ELECTROLYSIS
10.00 – 10.15	N. Stefaniak, Ukraine THE UTILIZATION OF LIQUID METALCONTAINING RESIDUES
10.15 – 10.30	K. A. Razdobin, Ukraine THREE-DIMENSIONAL ELECTRODE SYSTEMS FOR PURIFICATION OF DILUTED SOLUTIONS

10.30 – 10.45 **A.I. Dicusar, Moldova** ANODIC DILUTION OF IRON AND THE KINETICS OF ELECTROCHEMICAL PURIFICATION OF WATER FROM HEAVY METAL. **IONS** 10.45 - 11.00J.I. Bobanova, Moldova ECOLOGICAL ASPECTS OF THE THROWING POWER INCREASING OF ELECTROLYTE DURING INTENSIVE ELECTRODEPOSITION 11.00 – 11.20 Coffee-break A. Frolov, Russia 11.20 - 11.35DEVELOPMENT OF AN ELECTRO-FLOTATION TECHNOLOGY FOR EXTRACTIVE SOLVENTS REMOVAL ON THE BASIS OF OIL 11.35 - 11.50V. Kovalenco, Ukraine DIAPHRAGM ELECTRICAL COAGULATOR WITH INSOLUBLE ANODE – INSTALLATION FOR TREATMENT OF WASHING AND WASTE WATERS 11.50 - 12.05V. Matveevici, Moldova WASTEWATERS DECOLORIZATION BY CHEMICAL TREATMENT AND ELECTROCOAGULATION 12.05 - 12.20Monica Ihos, Romania BRANCH ELECTROCHEMICAL DEGRADATION OF AZODYES FROM WASTEWATERS 1 COLOUR REMOVAL FROM A REACTIVE DYE AQUEOUS SOLUTION 12.20 - 12.35F. Manea, Romania ELECTROCHEMICAL SENSING OF SODIUM TARTRATE USING A COPPER/COPPER OXIDE ELECTRODE

12.35 – 12.50 **D. Curchi, Moldova**

ELECTROKINETIC ASPECTS OF PHASES INTERACTIONS IN O/W FOOD EMULSIONS

12.50 – 14.30 Lunch break

14 30-15 25 Poster Session

O. Covaleva, Moldova

SELECTIVE ELECTROCHEMICAL METHODS OF METALS A ELECTROLYTE GENERATION IN GALVANIC TECHNIQUES

V. Kosov, Moldova

THE MECHANISM OF DESTRUCTION OF STEEL CONSTRUCTIONS UNDER THE INFLUENCE OF ENVIRONMENT

A. Mihailiuc, Moldova

INTRODUCTION OF POOR SOLUBLE ANODES FOR CATHODE PROTECTION AGAINST CORROSION – A METHOD OF SOILS PROTECTION FROM POLLUTION

V. Iambartsev, Moldova

THE STUDY OF THE PROCESS OF DECREASING OF NITRATES CONTENT IN SIMULATED SOLUTIONS DURING ELECTROCHEMICAL TREATMENT

I. Muldagalieva, Kazachstan

ELECTRIC CHEMICAL ASPECTS IN RELATION TO ENVIRONMENT

J. Bobanova, Moldova

ELECTRIC DEPOSITION OF METALS IN THE PRESENCE OF ORGANIC ADDITIVES

T. Oumarova, Tadjikistan

THE APPLICATION OF REUSED ALUMINUM FOR THE PURPOSE OF PROTECTION AGAINST CORROSION

V. Petrenco, Moldova

ELECTRIC COAGULATION PURIFICATION OF WATER AFTER ELECTRIC EROSION CUTTING OF SEMICONDUCTOR MATERIALS

T. Cazac, Moldova

THE ANALYSIS OF HEAVY METALS IN NATURAL WATERS BY ABSORBTIVE VOLTAMETRY WITH STRIPPING CATHODE

M. Revenco, Moldova

REAGENTS ADSORPTIVE ACCUMULATION OF CADMIUM FROM NATURAL WATERS ON THE MERCURY ELECTRODES

L. Gagara, Moldova

ELABORATION OF NEW METHOD OF LAYING CdS AND ZnCdS FOR THE SENSORS USED IN ENVIRONMETAL CONTROL

V. Parshutin, Moldova

CORROSION OF METALS IN NATURAL AND TECHNIQUE WATERS IN MOLOVA

15.30 – 16.30 Closing session (in the Conference Hall of The Academy of Sciences of Moldova)

17.30 - 20.30 Cultural Program