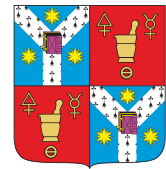


ALEXANDRU IOAN CUZA  
UNIVERSITY of IAȘI



FACULTY of CHEMISTRY

# Conference Program





# IasiCHEM 5-MIT 2023

## Faculty of Chemistry Conference

### Chairs

**Prof. Ionel MANGALAGIU**

**Prof. Aurel PUI**

### Scientific Committee

**President: Prof. Habil. Romeo-Iulian OLARIU**

Prof. Doina HUMELNICU

Prof. Costel MOLDOVEANU

Prof. Ramona-Antoaneta DANAC

Dr. Habil. Luminita MARIN

Assoc. Prof. Ionel HUMELNICU

Assoc. Prof. Iustinian-Gabriel BEJAN

Assoc. Prof. Vasile-Robert GRADINARU

Assoc. Prof. Maria IGNAT

### Organizing Committee

**President: Prof. Habil. Cecilia ARSENE**

Assoc. Prof. Nicoleta CORNEI

Assoc. Prof. Dalila BELEI

Dr. Alina-Giorgiana NEGRU

### Secretaryship

Assoc. Prof. Dorina AMARIUCAI-MANTU

Phd. Stud. Cornelia AMARANDEI

Phd. Stud. Roxana CIORTEANU

Phd. Stud. Ioana RADU



## Presentation time (discussion included)

- Invited Conference: 30 minutes
- Oral Communication: 15 minutes

## Posters Program

- Poster numbers will be displayed on the poster panel.
- Posters contributions from **Session I (PI)** will be placed on the poster panel **Thursday, October 26<sup>th</sup>**, during the registration time from 14<sup>00</sup> to 14<sup>30</sup>, and will be removed Thursday after 19<sup>00</sup>.
- Posters contributions from **Session II (PII)** will be placed on the poster panel **Friday, October 27<sup>th</sup>**, from 8<sup>30</sup> to 9<sup>00</sup> and will be removed Friday after 13<sup>30</sup>.
- The presence of authors is required.

# Scientific Program

## Day 1

Thursday, October 26<sup>th</sup>, Senate Hall

14<sup>00</sup>-14<sup>30</sup> **Registration of the participants**

14<sup>30</sup>-14<sup>45</sup> **Welcome to MIT 2023 by Chairs**

Prof. Ionel MANGALAGIU

Prof. Aurel PUI

Prof. Habil. Cecilia ARSENE

### Session 1

Senate Hall, 14<sup>45</sup>-16<sup>00</sup>

Session chairs: Prof. Habil. Cecilia ARSENE

Prof. Aurel PUI

**IC-01** **Cathodoluminescence properties of diamonds and zircons from ultrahigh pressure rocks of the Kokchetav Massif, Kazakhstan**  
14<sup>45</sup>-15<sup>30</sup>

Ovidiu Gabriel IANCU<sup>1</sup>, Roberto COSSIO<sup>2</sup>, Roberto COMPAGNONI<sup>2</sup>

<sup>1</sup>*“Alexandru Ioan Cuza” University of Iasi, Department of Geology*

<sup>2</sup>*University of Turin, Department of Mineralogical and Petrological Sciences*

**OC-01** **The importance of tailored calibration for quadrupole ICP-MS measurements**  
15<sup>30</sup>-15<sup>45</sup>

Laurentiu-Valentin SOROAGA<sup>2,3</sup>, Cecilia ARSENE<sup>1,2,3</sup>, Romeo-Iulian OLARIU<sup>1,2,3</sup>

<sup>1</sup>*“Alexandru Ioan Cuza” University of Iasi, Faculty of Chemistry*

<sup>2</sup>*“Alexandru Ioan Cuza” University of Iasi, Institute of Interdisciplinary Research, CERNESIM*

<sup>3</sup>*“Alexandru Ioan Cuza” University of Iasi, RECENT-AIR*

**OC-02** **Affinity binding study of ubiquitin containing peptides to a specific lysine-linkage ubiquitin antibody by mass spectrometry**  
15<sup>45</sup>-16<sup>00</sup>

Ji Eun JUNG<sup>1,2</sup>, Vanessa CARDENAS<sup>1</sup>, Brindusa Alina PETRE<sup>1,3</sup>

<sup>1</sup>*University of Konstanz, Department of Chemistry, Laboratory of Analytical Chemistry and Biopolymer Structure Analysis, Germany*



<sup>2</sup> National Forensic Service, Seoul Institute, Forensic Toxicology & Chemistry Division, Seoul, Korea

<sup>3</sup> "Alexandru Ioan Cuza" University of Iasi, Faculty of Chemistry, Laboratory of Biochemistry

**16<sup>00</sup>-16<sup>30</sup>** **Poster Session I and Coffee break – The Hall of the Echoing Footsteps**

**Session**      **Assoc. Prof. Simona Maria CUCU-MAN**  
**chairs:**      **Assoc. Prof. Habil. Gheorghita ZBANCIOC**

**Session 2**

**Senate Hall, 16<sup>30</sup>-17<sup>45</sup>**

**Session chairs:** **Assoc. Prof. Nicoleta CORNEI**

**Prof. Habil. Romeo Iulian OLARIU**

**IC-02**      **A passion for a life. From healthy habits to scientific approaches in the MIT era**  
**16<sup>30</sup>-17<sup>00</sup>**

Marin CHIRAZI

*"Alexandru Ioan Cuza" University of Iasi, Faculty of Physical Education and Sports*

**OC-03**      **Al doping of SrTiO<sub>3</sub> nanoceramic boosts photocatalytic efficiency: answers from the structure, morphology and electronic properties contributions**  
**17<sup>00</sup>-17<sup>15</sup>**

Ioana RADU<sup>1</sup>, Adrian Iulian BORHAN<sup>1</sup>, Daniel GHERCĂ<sup>1</sup>, Dana Georgeta POPESCU<sup>2</sup>, Camelia Nicoleta BORCA<sup>3</sup>, Thomas HUTHWELKER<sup>3</sup>, Georgiana BULAI<sup>4</sup>, Marius-Adrian HUSANU<sup>2</sup>, Aurel PUI<sup>1</sup>

<sup>1</sup>*"Alexandru Ioan Cuza" University of Iasi, Faculty of Chemistry*

<sup>2</sup>*National Institute of Materials Physics*

<sup>3</sup>*Paul Scherrer Institut, Swiss Light Source, Switzerland*

<sup>4</sup>*"Alexandru Ioan Cuza" University of Iasi, Institute of Interdisciplinary Research, CERNESIM*

**OC-04**      **The atmospheric fate of a gaseous transformation product of limonene**  
**17<sup>15</sup>-17<sup>30</sup>**

Claudiu ROMAN<sup>1,2</sup>, Cornelia AMARANDEI<sup>1,2</sup>, Alina Giorgiana NEGRU<sup>1,2,3</sup>, Cecilia ARSENE<sup>1,2,3</sup>, Iustinian Gabriel BEJAN<sup>1,3</sup>, Alexandre TOMAS<sup>4</sup>, Romeo Iulian OLARIU<sup>1,2,3</sup>



Ana CIOCHINA, Iustinian Gabriel BEJAN, Ionel HUMELNICU  
*"Alexandru Ioan Cuza" University of Iasi, Faculty of Chemistry*

- PI-05 New dermatocosmetic products based on vegetal ingredients**  
Claudia MAXIM<sup>1</sup>, Simona BARNA<sup>1</sup>, Adriana TRIFAN<sup>2</sup>, Daniela SUTEU<sup>1</sup>, Delia TURCOV<sup>1</sup>  
<sup>1</sup>*"Gheorghe Asachi" Technical University of Iasi, Faculty of Chemical Engineering and Environmental Protection*  
<sup>2</sup>*"Grigore T. Popa" University of Medicine and Pharmacy Iasi, Faculty of Pharmacy*
- PI-06 Synthesis of polymer microparticles and their application in the extraction of heavy metal ions from aqueous environments**  
Ana-Maria SOLONARU, Andrei HONCIUC, Mirela HONCIUC<sup>1</sup>, Oana-Iuliana NEGRU, Maria MEDRIHAN  
*"Petru Poni" Institute of Macromolecular Chemistry, Department of Electroactive Polymers*
- PI-07 Novel hybrid azaheterocyclic compounds through click chemistry**  
Vasilichia ANTOCI<sup>1</sup>, Dorina AMARIUCAI-MANTU<sup>1</sup>, Dumitrelea DIACONU<sup>2</sup>, Ramona DANAC<sup>1</sup>, Catalina CIOBANU<sup>2</sup>, Violeta MANGALAGIU<sup>2</sup>, Ionel MANGALAGIU<sup>1,2</sup>  
<sup>1</sup>*"Alexandru Ioan Cuza" University of Iasi, Faculty of Chemistry*  
<sup>2</sup>*"Alexandru Ioan Cuza" University of Iasi, Institute of Interdisciplinary Research, CERNESIM*
- PI-08 Simultaneous determination of protein and essential amino acids in biological samples**  
Elena MIHALCEA<sup>1</sup>, Andra Cristina ENACHE<sup>2</sup>, Gabi DROCHIOIU<sup>1</sup>  
<sup>1</sup>*"Alexandru Ioan Cuza" University of Iasi, Faculty of Chemistry*  
<sup>2</sup>*"Petru Poni" Institute of Macromolecular Chemistry*
- PI-09 Photocatalytic performance of undoped and Sr-doped SmFe<sub>0.7</sub>Co<sub>0.3</sub>O<sub>3</sub> thin films by using H<sub>2</sub>O<sub>2</sub> as co-catalyst**  
Nicoleta CORNEI<sup>1</sup>, Carmen MITA<sup>1</sup>, Diana MARDARE<sup>2</sup>, Georgiana BULAI<sup>3</sup>, Marius DOBROMIR<sup>4</sup>  
<sup>1</sup>*"Alexandru Ioan Cuza" University of Iasi, Faculty of Chemistry*  
<sup>2</sup>*"Alexandru Ioan Cuza" University of Iasi, Faculty of Physics*  
<sup>3</sup>*"Alexandru Ioan Cuza" University of Iasi, Institute of Interdisciplinary Research, CERNESIM*  
<sup>4</sup>*"Alexandru Ioan Cuza" University of Iasi, Faculty of Physics, Research Department*
- PI-10 Adsorption of caffeic and p-coumaric acids on activated carbons**  
Irina CEBAN, Raisa NASTAS, Tudor LUPASCU  
*Moldova State University, Institute of Chemistry, Republic of Moldova*
- PI-11 An efficient method for the C-alkylation of 1,2,3-triazoles**  
Codruta FRINCUL<sup>1</sup>, Elena BICU<sup>1</sup>, Catalina-Ionica CIOBANU<sup>2</sup>, Dalila BELEI<sup>1</sup>  
<sup>1</sup>*"Alexandru Ioan Cuza" University of Iasi, Faculty of Chemistry*  
<sup>2</sup>*"Alexandru Ioan Cuza" University of Iasi, Institute of Interdisciplinary Research, CERNESIM*
- PI-12 The interrelationship Peroxide index – Chemical composition of Lavender and Clary sage essential oils during their alteration by on-air exposure**



Lidia LUNGU, Violeta POPESCU, Svetlana BLAJA, Alexandru CIOCARLAN, Aculina ARICU  
*Moldova State University, Institute of Chemistry, Republic of Moldova*

**PI-13 The use of machine learning methods in modeling and predicting PM<sub>10</sub> in an urban area**

Robert HRITAC<sup>1</sup>, Iuliana-Gabriela BREABAN<sup>1,2</sup>, Marius-Mihai CAZACU<sup>3</sup>

<sup>1</sup>*“Alexandru Ioan Cuza” University of Iasi, Faculty of Geography and Geology, Geoscience Doctoral School*

<sup>2</sup>*“Alexandru Ioan Cuza” University of Iasi, Institute of Interdisciplinary Research, CERNESIM*

<sup>3</sup>*“Gheorghe Asachi” Technical University of Iasi, Department of Physics*

## Day 2

**Friday, October 27<sup>th</sup>, Senate Hall**

### Session 1

**Senate Hall, 09<sup>00</sup>-10<sup>30</sup>**

**Session chairs: Prof. Doina HUMELNICU  
Prof. Ionel MANGALAGIU**

**IC-03 Municipal wastewater issues in Moldova and potential of applying the natural treatment systems**  
09<sup>00</sup>-09<sup>30</sup>

Gheorghe DUCA Victor COVALIOV, Lidia ROMANCIUC, Olga COVALIOVA

*Moldova State University, Institute of Chemistry, Republic of Moldova*

**OC-06 New autochthonous carbonic adsorbents for groundwater potabilization**  
09<sup>30</sup>-09<sup>45</sup>

Tudor LUPASCU, Oleg PETUHOV, Tatiana MITINA, Mihail CIOBANU, Raisa NASTAS

*Moldova State University, Institute of Chemistry, Republic of Moldova*

**OC-07 Nitrogen doped ZrO<sub>2</sub> thin films for photodegradation of Rhodamine B from synthetic water under visible light**  
09<sup>45</sup>-10<sup>00</sup>

Carmen MITA<sup>1</sup>, Nicoleta CORNEI<sup>1</sup>, Mariana FRENTI<sup>2</sup>, Georgiana BULAI<sup>3</sup>, Marius DOBROMIR<sup>4</sup>, Vasile TIRON<sup>4</sup>, Diana MARDARE<sup>2</sup>

<sup>1</sup>*“Alexandru Ioan Cuza” University of Iasi, Faculty of Chemistry*

<sup>2</sup>*“Alexandru Ioan Cuza” University of Iasi, Faculty of Physics*

<sup>3</sup>“Alexandru Ioan Cuza” University of Iasi, Institute of Interdisciplinary Research, CERNESIM

<sup>4</sup>“Alexandru Ioan Cuza” University of Iasi, Institute of Interdisciplinary Research, RAMTECH

**IC-04 Interdisciplinary approach in science: opportunities and challenges**  
10<sup>00</sup>-10<sup>30</sup>

Mihaela MOCANU

“Alexandru Ioan Cuza” University of Iasi, Institute of Interdisciplinary Research

**10<sup>30</sup>-11<sup>00</sup> Poster Session II and Coffee Break – The Hall of the Echoing Footsteps**

**Session chairs: Dr. Alina-Giorgiana NEGRU  
Prof. Costel MOLDOVEANU**

**Session 2**

**Senate Hall, 11<sup>00</sup>-12<sup>30</sup>**

**Session chairs: Assoc. Prof. Dalila BELEI  
Assoc. Prof. Ionel HUMELNICU**

**IC-05 Chitosan based biomaterials: insights into chemistry, properties and their applications**  
11<sup>00</sup>-11<sup>30</sup>

Luminita MARIN, Daniela AILINCAI, Manuela Maria IFTIME, Anda Mihaela CRACIUN, Andrei BEJAN, Alexandru ANISIEI, Bianca Iustina ANDREICA, Sandu CIBOTARU

“Petru Poni” Institute of Macromolecular Chemistry

**OC-08 Amino acids and their short biomimetic aromatic peptides: self-assembly, bioactivity and their targeted applications**  
11<sup>30</sup>-11<sup>45</sup>

Vasile Robert GRADINARU<sup>1</sup>, Stefania-Claudia JITARU<sup>1</sup>, Brindusa-Alina PETRE<sup>1,2</sup>

<sup>1</sup>“Alexandru Ioan Cuza” University of Iasi, Faculty of Chemistry

<sup>2</sup>Regional Institute of Oncology, TRANSCEND

**OC-09 Bacteriorhodopsin - the simplest bioenergetic system for ATP production**  
11<sup>45</sup>-12<sup>00</sup>

Gabi DROCHIOIU

“Alexandru Ioan Cuza” University of Iasi, Faculty of Chemistry



**OC-10**     **Synthesis of ion imprinted polymer microspheres by Pickering Emulsion Polymerization Technology**  
12<sup>00</sup>-12<sup>15</sup>

Oana-Iuliana NEGRU, Andrei HONCIUC, Mirela HONCIUC, Ana-Maria SOLONARU, Maria MEDRIHAN  
*“Petru Poni” Institute of Macromolecular Chemistry, Department of Electroactive Polymers and Plasmochemistry*

**OC-11**     **Pickering Emulsion Polymerization Technology (PEmPTech) utilized for obtaining ion-imprinted polymer materials**  
12<sup>15</sup>-12<sup>30</sup>

Maria MEDRIHAN, Andrei HONCIUC, Valeria HARABAGIU, Ana-Maria SOLONARU, Oana-Iuliana NEGRU, Mirela HONCIUC  
*“Petru Poni” Institute of Macromolecular Chemistry, Department of Electroactive Polymers and Plasmochemistry*

12<sup>30</sup>-13<sup>30</sup>     **Poster Session II, Coffee Break and lunch – The Hall of the Echoing Footsteps**

**Session chairs: Dr. Alina-Giorgiana NEGRU  
Prof. Costel MOLDOVEANU**

13<sup>30</sup>-14<sup>00</sup>     **Concluding remarks**

**POSTER SESSION II**

**Friday, October 27<sup>th</sup> - In front of the Senate Hall**

**PII-01**     **Synthesis of a new biological active N-(2-aminophenyl)-drim-7,8-en-carboxamide**

Svetlana BLAJA<sup>1</sup>, Lidia LUNGU<sup>1</sup>, Alexandru CIOCARLAN<sup>1</sup>, Aculina ARICU<sup>1</sup>, Nicoleta VORNICU<sup>2</sup>

<sup>1</sup>*Moldova State University, Institute of Chemistry, Republic of Moldova*

<sup>2</sup>*T.A.B.O.R. Metropolitan Center of Research*

**PII-02**     **Microscopic and molecular approaches into atmospheric bioaerosols from the Iasi urban area**

Cristina IANCU<sup>1,2</sup>, Cornelia AMARANDEI<sup>2,3</sup>, Naela COSTICA<sup>3,4</sup>, Iustinian Gabriel BEJAN<sup>1,2,3</sup>, Romeo Iulian OLARIU<sup>1,2,3</sup>, Cecilia ARSENE<sup>1,2,3</sup>

<sup>1</sup>*“Alexandru Ioan Cuza” University of Iasi, Faculty of Chemistry*

<sup>2</sup>*“Alexandru Ioan Cuza” University of Iasi, RECENT-AIR*

<sup>3</sup>*“Alexandru Ioan Cuza” University of Iasi, Institute of Interdisciplinary Research, CERNESIM*

<sup>4</sup>*“Alexandru Ioan Cuza” University of Iasi, Faculty of Biology*

- PII-03 The use of qNMR spectroscopy for analytical evaluation of natural extracts. The case of *Lamiaceae* plants**  
Natalia BIRCA, Alic BARBA, Veaceslav KULCITKI  
*Moldova State University, Institute of Chemistry, Republic of Moldova*
- PII-04 Corn stalk agri-residues - raw material for fiber based biorefinery**  
Adrian Catalin PUITEL<sup>1</sup>, Mircea Teodor NECHITA<sup>1</sup>, Catalin Dumitrel BALAN<sup>1</sup>, Gabriela-Liliana AILIESEI<sup>2</sup>  
<sup>1</sup>*“Gheorghe Asachi” Technical University, Faculty of Chemical Engineering and Environmental Protection “Cristofor Simionescu”*  
<sup>2</sup>*“Petru Poni” Institute of Macromolecular Chemistry*
- PII-05 Novel Phenstatin analogs with indolizinic structure: synthesis and their anticancer properties**  
Roxana CIORTEANU<sup>1</sup>, Ramona DANAC<sup>1</sup>, Monica Cornelia SARDARU<sup>1,2</sup>, Catalina CIOBANU<sup>3</sup>, Ionel MANGALAGIU<sup>1</sup>  
<sup>1</sup>*“Alexandru Ioan Cuza” University of Iasi, Faculty of Chemistry*  
<sup>2</sup>*“Petru Poni” Institute of Macromolecular Chemistry*  
<sup>3</sup>*“Alexandru Ioan Cuza” University of Iasi, Institute of Interdisciplinary Research, CERNESIM*
- PII-06 Enhanced *in vitro* effectiveness of conventional drugs using PEGylated Squalene micelles as nanocarriers**  
Bogdan Florin CRACIUN, Mariana PINTEALA  
*“Petru Poni” Institute of Macromolecular Chemistry, Center of Advanced Research in Bionanoconjugates and Biopolymers (IntelCentru)*
- PII-07 *In vitro* targeting of MCF-7 tumor cells using PEI-β-CD functionalized gold nanoparticles as non-viral vectors for gene delivery**  
Bogdan Florin CRACIUN, Dragos PEPTANARIU, Mihaela SILION, Teodora RUSU, Mariana PINTEALA  
*“Petru Poni” Institute of Macromolecular Chemistry, Center of Advanced Research in Bionanoconjugates and Biopolymers (IntelCentru)*
- PII-08 Dendritic self-assembly patterns in tyrosine-modified lysozyme peptides**  
Stefania-Claudia JITARU<sup>1</sup>, Andra-Cristina ENACHE<sup>3</sup>, Gabi DROCHIOIU<sup>1</sup>, Brindusa-Alina PETRE<sup>1,2</sup>, Vasile-Robert GRADINARU<sup>1</sup>  
<sup>1</sup>*“Alexandru Ioan Cuza” University of Iasi, Faculty of Chemistry*  
<sup>2</sup>*Regional Institute of Oncology, TRANSCEND*  
<sup>3</sup>*“Petru Poni” Institute of Macromolecular Chemistry*
- PII-09 Freshwater algal-based biosorbents: preparation and characterization for use in dye-containing effluent treatments**  
Carmen ZAHARIA<sup>1</sup>, Adrian Catalin PUITEL<sup>2</sup>, Gabriela LISA<sup>3</sup>, Mariana DIACONU<sup>1</sup>, Crinuta-Larisa ORTOVAN<sup>1</sup>, Marius-Alexandru AFRASINEI<sup>1</sup>  
<sup>1</sup>*“Gheorghe Asachi” Technical University of Iasi, Department of Environmental Engineering and Management*  
<sup>2</sup>*“Gheorghe Asachi” Technical University of Iasi, Department of Chemical Engineering*  
<sup>3</sup>*“Gheorghe Asachi” Technical University of Iasi, Department of Natural and Synthetic Polymers*



**PII-10 Photothermal hydrogel composites with G4-carbon nanomaterials for enhanced inhibition of *Staphylococcus Aureus***

Monica-Cornelia SARDARU<sup>1,2</sup>, Irina ROSCA<sup>2</sup>, Alexandru ROTARU<sup>2</sup>

<sup>1</sup>*The Research Institute of the University of Bucharest (ICUB)*

<sup>2</sup>*“Petru Poni” Institute of Macromolecular Chemistry, Center of Advanced Research in Bionanoconjugates and Biopolymers (IntelCentru)*

**PII-11 Development, validation, and application of a quantitation procedure for 4 synthetic cannabinoids in mouse serum by liquid chromatography tandem mass spectrometry**

Raluca STEFANESCU<sup>1</sup>, Leontina Elena FILIPIUC<sup>1</sup>, Daniela Carmen ABABEI<sup>1,2</sup>, Veronica BILD<sup>1,2</sup>, Gabriela Dumitrita STANCIU<sup>1</sup>, Bogdan Ionel TAMBA<sup>1,3</sup>

<sup>1</sup>*“Grigore T. Popa” University of Medicine and Pharmacy, Advanced Center for Research and Development in Experimental Medicine “Prof. Ostin C. Mungiu”*

<sup>2</sup>*“Grigore T. Popa” University of Medicine and Pharmacy, Pharmacodynamics and Clinical Pharmacy Department*

<sup>3</sup>*“Grigore T. Popa” University of Medicine and Pharmacy, Department of Pharmacology, Clinical Pharmacology and Algesiology*

**PII-12 Development of polymer electrospun nanocomposites comprising polyether ether ketone and TiO<sub>2</sub>**

Timeea-Anastasia CIOBANU<sup>1</sup>, Tachita VLAD-BUBULAC<sup>2</sup>, Alina-Mirela IPATE<sup>2</sup>, Daniela RUSU<sup>2</sup>, Gabriela LISA<sup>3</sup>, Diana SERBEZEANU<sup>2</sup>

<sup>1</sup>*“Alexandru Ioan Cuza” University of Iasi, Faculty of Chemistry*

<sup>2</sup>*“Petru Poni” Institute of Macromolecular Chemistry*

<sup>3</sup>*“Gheorghe Asachi” Technical University of Iasi, Faculty of Chemical Engineering and Environmental Protection “Cristofor Simionescu”, Department of Chemical Engineering*

**PII-13 Potential toxic elements effects on soil quality when the use category changes from a traditional vineyard to residential area (Iasi, Romania)**

Ramona HUZUM<sup>1</sup>, Iuliana Gabriela BREABAN<sup>2</sup>, Doina Smaranda SIRBU-RADASANU<sup>3</sup>

<sup>1</sup>*“Alexandru Ioan Cuza” University of Iasi, Institute of Interdisciplinary Research, CERNESIM*

<sup>2</sup>*“Alexandru Ioan Cuza” University of Iasi, Faculty of Geography and Geology, Department of Geography*

<sup>3</sup>*“Alexandru Ioan Cuza” University of Iasi, Faculty of Geography and Geology, Department of Geology*