

# CV

<b>PERSONAL INFORMATION</b>	
Name and surname	MIHALY COZMUTA ANCA 
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E-mail	<a href="mailto:ancamihalycozmuta@gmail.com">ancamihalycozmuta@gmail.com</a>
Nationality	Romanian
Birth	09.12.1967
<b>PROFESSIONAL</b>	
Time range:	1992 - present
Name and address of employs	Technical University of Cluj Napoca, North University Center of Baia Mare, Faculty of Sciences Victoriei Str. 76 A, Baia Mare, ROMANIA <a href="http://chimie-biologie.ubb.cs">http://chimie-biologie.ubb.cs</a>
Activities	Didactical activities in the field of chemistry and food industry Research activities in the fields of: environment pollution, traceability of contaminants along of food chain, nanomaterials
Historic of employs	<ul style="list-style-type: none"> <li>● 2012- present – Professor, Chemistry Biology Department, Technical University of Cluj Napoca, North University Center of Baia Mare, Romania</li> <li>● 2007- 2012 – Professor, Chemistry Biology Department, North University of Baia Mare, Romania</li> <li>● 2003 – 2007 – Associate professor, Chemistry Biology Department, North University of Baia Mare, Romania</li> <li>● 1999 - 2003 - Lecturer, Chemistry Biology Department, North University of Baia Mare, Romania</li> <li>● 1996 – 1999 – Asisstent, Chemistry Biology Department, North University of Baia Mare, Romania</li> </ul>
<b>EDUCATION</b>	
Time range	1) 2004-2006 2) 2000 3) 1987-1992 4) 1982 – 1986
Name of organisation	1) North University of Baia Mare, Romania: <i>Engineering of Food</i> 2) Babes Bolyai University of Cluj Napoca, Romania: <i>Industrial Chemistry</i> – Ph D. 3) Polytechnic Institute of Bucharest Romania, Industrial Chemistry: <i>Technology of Inorganic Chemistry</i> – chemist engineer

	4) High School – Industrial Chemistry
<b>FIELDS OF EXPERTISE</b>	<ul style="list-style-type: none"> <li>• nanomaterials</li> <li>• Environment pollution monitoring</li> <li>• Rehabilitation of polluted sites</li> <li>• Traceability of contaminants in environment</li> <li>• Traceability of contaminants along of food chain</li> </ul>
<b>NATIVE LANGUAGE</b>	<b>Romanian</b>
<b>FOREIGN LANGUAGE</b>	<b>English</b>
Reading	Fluent
Writing	Good
Speaking	Fluent
<b>FOREIGN LANGUAGE</b>	<b>French</b>
Reading	Average
Writing	Average
Speaking	Average
<b>ORGANIZATORIC SKILLS</b>	<ul style="list-style-type: none"> <li>• Head of Chemistry Biology Department</li> <li>• May 2007 – organizer of international work-shop: <i>Optoelectronic techniques for environment pollution monitoring OTEM 2006</i>, Bucharest</li> <li>• July-August 2007 – organizer of Summer School: <i>Optoelectronic techniques for environment pollution monitoring OTEM 2007</i>, Baia Mare</li> <li>• Coordinator of 6 international research projects and 2 national research projects;</li> <li>• Coordinator of practical activities of students</li> </ul>
<b>TECHNICAL SKILLS</b>	<ul style="list-style-type: none"> <li>• PC working: Word, Excel, Origin, Hydra and Medusa, etc.</li> <li>• Physically-chemically analysis equipment handling</li> </ul>
<b>INFORMATIONS</b>	Contact person: Dean of Science Faculty: Assoc.prof. dr. Petrica Pop, Tel: 0262/276059; e-mail: pop_petrica@yahoo.com

## SCIENTIFIC ACTIVITY

### 1. Ph. D. THESIS

*ELECTROCHEMICAL RECOVERY OF COPPER FROM WASTEWATERS -2000*

Coordinators :

**Prof.dr.doc. LIVIU ONICIU**

- Babes Bolyai University of Cluj Napoca

Prof.dr. IONEL CĂTĂLIN POPESCU – Babes Bolyai University of Cluj Napoca

### 2. BOOKS

- 2.1.** A. Mihaly Cozmuta, F. Pop, 2011 – Technologies in Food Industry- Practical activities, Ed. Risoprint – Cluj, 113 pages;
- 2.2.** A. Mihaly Cozmuta, F. Pop, 2009- Practical activities in Bakery Industry, Ed. Risoprint-Cluj, 112 pages;
- 2.3.** A. Mihaly Cozmuta, F. Pop, 2008 – Baking Technology, Ed. Risoprint-Cluj, 167 pages, ISBN 978-973-751-901-6
- 2.4.** A. Mihaly Cozmuta, F. Pop, 2008 – Technology of Pastries Products, Ed. Risoprint-Cluj, 117 pages, ISBN 978-973-751-897-2.
- 2.5.** **A. Mihaly Cozmuta**, L. Mihaly Cozmuta, **2007 – General Chemistry**, Risoprint Ed., Cluj Napoca, 189 pages, ISBN 978-973-751-412-7
- 2.6.** **A. Mihaly Cozmuta**, L. Mihaly Cozmuta, C. Varga, **2006 - Unconventional methods for metals recovery from solutions. I. Electrochemical recovery of copper from wastewaters using fluidized bed electrodes**, Risoprint Ed., Cluj Napoca, 183 pages, ISBN : 973-751-355-5 978-973-751-335-9
- 2.7.** L. Mihaly Cozmuta, **A Mihaly Cozmuta**, C. Varga, **2006 Unconventional methods for metals recovery from solutions. II. Recovery of valuable metals from wastewaters coming from mining industry**, Risoprint Ed., Cluj Napoca, 212 pages. ISBN : 973-751-355-X 978-973-751-355-7
- 2.8.** **A. Mihaly Cozmuta**, L. Mihaly Cozmuta, **2002 – Practical activites in General Chemistry Laboratory**, Risoprint Ed., Cluj Napoca, 80 pages, ISBN 973-656-185-2

### 3. SCIENTIFIC ACTIVITY IN THE FIELD OF FOOD INDUSTRY

#### 3.1. ISI RANK JOURNALS

- 3.1.1.** Anca Mihaly Cozmuta, Anca Peter, Leonard Mihaly Cozmuta, Camelia Nicula, Liliana Crisan, Lucian Baia, Alin Turila (2015). *Active Packaging System Based on Ag/TiO<sub>2</sub> Nanocomposite Used for Extending the Shelf Life of Bread*. Chemical and Microbiological Investigations, Packag. Technol. Sci. (2014), DOI: 10.1002/pts.2103.

- 3.1.2.** Apan, Rodica; Cozmuta, Anca Mihaly; Peter, Anca; Nicula, Camelia; Cozmuta, Leonard Mihaly (2014). *Nano- food packaging: from efficiency in the conservation of food to legal consumer protection*. AMFITEATRU ECONOMIC, 16(36), 483-500, ISSN: 1582-9146, eISSN: 2247-9104

**3.1.3.** Anca Peter, Leonard Mihaly-Cozmuta, Anca Mihaly-Cozmuta, Camelia Nicula, Emil Indrea And Lucian Barbu-Tudoran (2014). *Testing the preservation activity of Ag-TiO<sub>2</sub>-Fe and TiO<sub>2</sub> composites included in the polyethylene during orange juice storage*, Journal of Food Process Engineering ISSN 1745-4530, doi:10.1111/jfpe.12116, 2014

**3.1.4.** Anca Mihaly Cozmuta, Laura Bretan, Leonard Mihaly Cozmuta, Camelia Nicula and Anca Peter- *Lead traceability along soil-melliferous flora-bee family-apiary products Chain*, Journal of Environmental Monitoring, 2012, 14, 1622-1630

**3.1.5.** A.Peter, C. Nicula, A. Mihaly Cozmuta, L. Mihaly Cozmuta - *Chemical and sensory changes of different dairy products during storage in packages containing nano-crystallized TiO<sub>2</sub>*, International Journal of Food Science and Technology, 47, 1448-1456

**3.1.6.** A. Peter, C. Nicula, A. Mihaly-Cozmuta, L. Mihaly-Cozmuta, E. Indrea, V. Danciu, H. Tutu, E. Bakatula Nsimba- *Efficiency of amendments based on zeolite and bentonite in reducing the accumulation of heavy metals in tomato organs (*Lycopersicum esculentum*) grown in polluted soils*, African Journal of Agricultural Research Vol. 6(21), pp. 5010-5023, 5 October, 2011;<http://www.academicjournals.org/ajar/contents/2011%20cont/5%20Oct.htm>

## **3.2. BDI RANKED JOURNALS**

**3.2.1.C.** Nicula, A. Peter, L. Mihaly-Cozmuta, A. Mihaly-Cozmuta, *The uptake of heavy metals in phaseolus vulgaris and zea mays seeds harvested from polluted and unpolluted areas*, Carpathian Journal of Food Science and Technology 2013, 5(1-2), 1-8.

**3.2.2.A.** Peter, A. Mihaly-Cozmuta, L. Mihaly-Cozmuta, C. Nicula, *Nanosensor based on tio2 for detection of oxygen in damaged vacuum packages*, Carpathian Journal of Food Science and Technology 2013, 5(1-2), 9-12.

**3.2.3.A.** Mihaly Cozmuta, A. Conea, A. Peter, A. Mihaly-Cozmuta, L. Mihaly-Cozmuta, C. Nicula, *Study the influence of work parameters on the leacheability of mineral elements into the coffee infusion*, Carpathian Journal of Food Science and Technology 2013, 5(1-2), 23-35.

**3.2.4.C.** Nicula, M. Sisestean, A. Mihaly-Cozmuta, A. Peter, L. Mihaly-Cozmuta, *Nitrate and nitrite content in various types of cucumbers and options to reduce it*, Carpathian Journal of Food Science and Technology 2013, 5(1-2), 36-44

**3.2.5.**Anca Peter, Loredana Roatis, Camelia Nicula, Anca Mihaly-Cozmuta, Leonard Mihaly-Cozmuta, *Combined use of paper or LDPE and natural extracts from Satureja hortensis and Allium sativum for the preservation of the summer salame*, Carpathian Journal of Food Science and Technology, 2012, 4(2), 18-27.

**3.2.6.**Camelia Nicula, Dora Lungu, Anca Peter, Anca Mihaly-Cozmuta, Leonard Mihaly-Cozmuta, *Curd cheese storaged in modified packaging with extract of garlic and thyme: variation of some physico-chemical parameters*, Carpathian Journal of Food Science and Technology, 2012, 4(2), 1-8.

**3.2.7.C.** Nicula, A. Buie, O. Bran, *Accumulation of chlorophyll and carotenoids pigments in plants grown under artificial light*, Carpathian Journal of Food Science and Technology, 2012, 4(1), 37-45.

**3.2.8.** Camelia Nicula, Monica Marian, Leonard Mihaly Cozmuta, Anca Peter, Anca Mihaly Cozmuta, 2010 – *Adaptative mechanisms of Phaseolus vulgaris and Zea mays seeds grown in agroecosystem prone to pollution with heavy metals*, Analele Universitatii din Oradea, Fascicula Biologie, XVII (1), p. 147-151, . ISSN 1224 – 5119 – p. 141-149 (<http://www.bioresearch.ro/revistaen.html>) (BDI)

## **3.3. PAPERS PRESENTED AT SYMPOSIA AND CONFERENCES**

**3.3.1.** Anca Mihaly Cozmuta, Anca Peter, Leonard Mihaly Cozmuta, Camelia Nicula, Calin Cadar - *Active packaging system based on Ag/TiO<sub>2</sub> nano-composite applied in preserving the wheat bread*

*during storage. I. Changes in physical parameters*, The 4<sup>th</sup>International Conference on Food Chemistry, Engineering & Technology, May 30 – 31, 2013, Timișoara- Romania, pag. 34.

**3.3.2.** Calin Cadar, Anca Mihaly-Cozmuta, Anca Peter, Camelia Nicula, Leonard Mihaly-Cozmuta, Marius Metenti, *Ag/TiO<sub>2</sub> based on nanomaterials used in food preservation*, 13<sup>th</sup> international Symposium and Summer school on Bioanalysis-Debrecen, iulie 2013, P3.

**3.3.4.** Anca Mihaly Cozmuta, Leonard Mihaly Cozmuta, Camelia Varga, Radu Sugar, 2010 - *Mathematical models used in prediction of hydroxymethylfurfural (hmf) formation during the thermal processing of honey*, 7th INTERNATIONAL CONFERENCE ON APPLIED MATHEMATICS (ICAM7), Baia Mare, Romania, 1.09. 4.09. 2010

**3.3.5.** Anca Mihaly Cozmuta, Camelia Varga, Anca Peter, Leonard Mihaly Cozmuta, Andra Pop, 2010 - *Kinetics aspects related to hydroxymethylfurfural formation during the thermal processing of honey*, The International Symposium “PROSPECTS FOR THE 3rd MILLENNIUM AGRICULTURE”, Cluj Napoca, Romania, 30.09.2010-2.10.2010, accepted

**3.3.6.** Sugar, I.R., Mihaly Cozmuta, A., Macavei, R., 2010 -*Study on the use of ultrasound for washing and cleaning in food industry*, Journals of EcoAgricTourism, vol. 6 (2010), Nr. 4 (21), p.45, ISSN – 1844-8577

**3.3.7.** A. Mihaly Cozmuta, L. Bretan, D. Boltea, L. Mihaly Cozmuta, M. Marian, A. Peter, C. Varga, 2009 – *Traceability of heavy metals along of soil-plant-honey chain*, CECE‘2009 - 6th International Interdisciplinary Symposium on Bionalysis, Pécs, November 6-7, 2009

#### **3.4. NATIONAL RESEARCH PROJECTS IN THE FIELD OF FOOD**

**3.4.1. Title :** *Bioaccumulation of heavy metals in soil-vegetables-human chain BIOMEG*

**Time range:** 2008-2011

**Coordinator:** Assoc.prof. Camelia Nicula – North University of Baia Mare, Romania

**Members:** prof.dr. Anca Mihaly Cozmuta, lecturer Leonard Mihaly Cozmuta, lecturer Anca Peter, etc.

**Funding source:** CNMP in the frame of PNCDI 2

**Partners:** : Universitatea de Nord Baia Mare, Universitatea din Oradea, Statiunea de Cercetari Agricole Livada Satu Mare, Facultatea de Medicina Universitatea Transilvania Brasov

**Budget:** 1.900.000 RON

**3.4.2. Title:** *Integrated application of databases for adopting and restructuring of protection natural and artificial factors in zootechnic farms –AIBD*

**Time range:** 2005-2008

**Coordinator:** Prof. dr. Anca Mihaly Cozmuta – North University of Baia Mare, Romania

**Members:** Assoc.prof. Camelia Nicula, lecturer Leonard Mihaly Cozmuta, lecturer Anca Peter, etc.

**Funding source:** Ministry pf Education in the frame of CALIST Research Program; in the frame of PNCDI 2

**Partners:** USAMV Cluj Napoca, Universitatea de Nord Baia Mare – Romania, Universitatea Gent Belgia, Academia de Stiinte Republica Moldova – Institutul de Zoologie

**Budget:** 100.000 RON

#### **3.5. INTERNATIONAL RESEARCH PROJECTS IN THE FIELD OF FOOD**

**3.5.1. Title :** Smart functions of packages containing nano-structured materials in food preservation – SMARTPACK

**Coordinator:** Lecturer dr. Anca Peter, UTC-N CUNBM-Romania

**Members:** Leonard Mihaly Cozmuta, Anca Mihaly Cozmuta, Camelia Nicula

**Time range:** 2012-2015

**Funding source:** MNT-ERANET Program

**Partners:** ICA-Bucuresti-Romania, Universitatea Babes Bolyai Cluj Napoca-Romania, SC Somes Dej-Romania, Warsow University – Poland

**3.5.2. Title:** ARGO training placement under the lifelong learning programme

**Coordinator:** Prof.dr. Anca Mihaly Cozmuta, UTC-N CUNBM-Romania

**Members:** Leonard Mihaly Cozmuta, Anca Peter, Camelia Nicula

**Time range:** 2008-2009

**Partners:** Universitatea de Nord Baia Mare-Romania, Fundacion para el Fomento en Asturias de la Investigación Aplicada y la Tecnología (FICYT)- Madrid - Spainia

## 4. SCIENTIFIC PAPER IN THE FIELD OF ENVIRONMENT

### 4.1. ISI RANK JOURNALS

**4.1.1.** L. Mihaly-Cozmuta, A. Mihaly-Cozmuta, A. Peter, C. Nicula, H. Tutu, Dan Silipas, Emil Indrea - *Adsorption of heavy metal cations by Na-clinoptilolite: Equilibrium and selectivity studies*, Journal of Environmental Management 137 (2014) 69-80.

**4.1.2.** Anca Peter, Leonard Mihaly-Cozmuta, Anca Mihaly-Cozmuta, and Camelia Nicula, Photocatalytic Efficiency of Zeolite-Based TiO<sub>2</sub> Composites for Reduction of Cu (II): Kinetic Models, International Journal of Applied Ceramic Technology, 1–14 (2013) DOI:10.1111/ijac.12046.

**4.1.3.** Anca Peter, Leonard Mihaly-Cozmuta, Anca Mihaly-Cozmuta, Camelia Nicula, Lucian Barbu Tudoran, Lucian Baia, Efficiency of Cu/TiO<sub>2</sub> to Remove Salicylic Acid by Photocatalytic Decomposition: kinetic modeling, Materials Technology, (2013), No. MTE259, DOI:10.1179/1753555713Y.0000000121,

<http://www.maneyonline.com/doi/abs/10.1179/1753555713Y.0000000121>.

**4.1.4.** Anca Peter, Leonard Mihaly-Cozmuta, Anca Mihaly-Cozmuta, Camelia Nicula, Emil Indrea, Hanganani Tutu - Calcium- and ammonium ion-modification of zeolite amendments affects the metal-uptake of Hieracium piloselloides in a dose-dependent way, Journal of Environmental Monitoring, 2012, 14, 2807-2814

**4.1.5.** A. Peter, E. Indrea, A. Mihaly-Cozmuta, L. Mihaly-Cozmuta, C. Nicula et al. - Dual efficiency of nano-structured TiO<sub>2</sub>/zeolyte systems in removal of copper (II) and lead (II) ions from aqueous solution under visible light, AIP Conf. Proc. 1425, 139 (2012); doi: 10.1063/1.3681986

**4.1.6.** L. Mihaly Cozmuta, A. Mihaly Cozmuta, A. Peter, C. Nicula, E. Bakatula Nsimba, H. Tutu - The influence of pH on the adsorption of lead by Na-clinoptilolite: kinetic and equilibrium studies, Water SA, Aprilie 2012, vol.38(2), 269-278

**4.1.7.** A. Peter, M. Marian, C. Nicula, L. Mihaly Cozmuta, A. Mihaly Cozmuta, E. Indrea - The sorptive performance of microorganisms-zeolite systems to remove Cu<sup>2+</sup>, Zn<sup>2+</sup>, Cd<sup>2+</sup>, Fe<sup>2+</sup> AND Pb<sup>2+</sup>, Revue Roumaine de Chimie, 2011, vol 56, nr. 9, 847-852, ISSN: 0035-3930, FI = 0.311

**4.1.7.** V. Oros, M. Coman, M. Marian, L. Mihaly-Cozmuta, A. Mihaly Cozmuta - Preliminary investigation aimed to ecological reclaiming by phytoremediation of a large flotation tailing dump in Baia Mare mining area, Environmental Engineering and Management Journal, nr 4, vol. 8, pag. 915-922, 2009.

**4.1.8.** L. Mihaly Cozmuta, Camelia Varga, Monica Marian, Anca Mihaly Cozmuta, Tutu Hlanganani, 2008 – Applying of artificial neuronal networks in modeling of ionic exchange copper recovery process, Revista de Chimie (ISI), Nr. 7, p.766 - 772 , ISSN 0034-7752.

**4.1.9.** A. Mihaly Cozmuta, L. Mihaly Cozmuta, C. Varga, 2007 – *Electrochemical recovery of copper from wastewaters using graphite volumic electrode*, Revista de Chimie, Nr. 12, p.12-32, ISSN 0034-7752 (ISI)

**4.1.10.** L. Mihaly Cozmuta, T. Visan, A. Mihaly Cozmuta, 2006 – *Energetically aspects regarding the adsorbtion of heavy metals on natural zeolites. The influence of pH on copper adsorbtion*, Revista de Chimie, vol. 57(11), ISSN 0034-7752, (ISI)

**4.1.11.** A. Mihaly Cozmuta, L. Mihaly Cozmuta, Gh. Vatca, 2003 – *Mathematic modelling of copper recovery process from wastewaters. III. The kinetic of cathodic reaction*, Revista de Chimie, vol. 54 (1), p. 20-24, ISSN 0034-7752

**4.1.12.** V. Vimant, M. Morar, Gh. Vatca, A. Mihaly Cozmuta, L. Mihaly Cozmuta, 2003 – Pollution of soil with heavy metals, Revista de Chimie, vol. 54 (2), p. 155-158, ISSN 0034-7752 (ISI)

**4.1.13.** A. Mihaly Cozmuta (Mihai), L. Mihaly Cozmuta, C. Toader, 2002 – *Mathematic modelling of copper recovery process from wastewaters.II. The calculation of catodic bed's heigh*, Revista de Chimie, vol. 53 (9), p. 595-602, ISSN 0034-7752 (ISI)

**4.1.14.** A. Mihaly Cozmuta (Mihai), L. Mihaly Cozmuta, 2002 – *Mathematic modelling of copper recovery process from wastewaters. I. Polarisation curves*, Revista de Chimie, vol. 53 (6), p. 450-455, ISSN 0034-7752, (ISI)

## **4.2. BDI RANKED JOURNALS**

**4.2.1.** Monica Marian, Camelia Nicula, Leonard Mihaly Cozmuta, Anca Peter, Anca Mihaly Cozmuta, 2010 – Participation of the indigenous vs. Alien herbaceous species to teh constitution of vegetal layer on the Bozxanta Mare Tailing Pond, Analele Universitatii din Oradea, Fascicula Biologie, XVII (1), p.134-141, ISSN 1224 – 5119 – p. 141-149 (<http://www.bioresearch.ro/revistaen.html>) (BDI)

**4.2.2.** Monica Marian, Camelia Varga, Leonard Mihaly-Cozmuta, Anca Mihaly-Cozmuta, 2009-EVALUATION OF THE PHYTOREMEDIATION POTENTIAL OF THE *SALIX CAPREA* IN TAILING PONDS, 2009, Analele Universitatii din Oradea, Ed. Universitatii din Oradea, Tom XIV. ISSN 1224 – 5119 – p. 141-149, (<http://www.bioresearch.ro/revistaen.html>) (BDI)

**4.2.3.** Monica Marian, Leonard Mihaly Cozmuta, Camelia Varga, Anca Mihaly Cozmuta, Eugen Nour, 2009 - “Vegetation dinamics depending on ecological particularities of Bozanta Mare (Maramures County – Romania) tailing pound – case study” - revista AJES American Journal of Environmental Sciences, Science Publications, PO Box 879, Vails Gate Hgts Drive, Vails Gate. New York, 12584, USA, ISSN 1553-345X, 5(1):116-123

**4.2.4.** Monica Marian, Camelia Varga, Leonard Mihaly-Cozmuta, Anca Mihaly-Cozmuta, EVALUATION OF THE PHYTOREMEDIATION POTENTIAL OF THE *QUERCUS PETRAEA* IN TAILING PONDS, 2008, Studia Universitatis Vasile Goldis Arad, Seria Stiintele Vietii, Vol. 18/2008, ISSN 1453-1038, p.71-76, BDI indexed in Zoological Records: <http://scientific.thomsonreuters.com/cgi-bin/jrnlst/jlresults.cgi?PC=MASTER&Word=goldis> (BDI)

**4.2.5.** Marian, Monica, Varga, Camelia, Mihaly-Cozmuta, Leonard, Peter, Anca, Mihaly-Cozmuta, Anca , Boltea, Delia, EVALUATION OF THE PHYTOREMEDIATION POTENTIAL OF THE POPULUS TREMULA IN TAILING PONDS, acceptata spre prezentare la Conferinta The 8th International Symposium “PROSPECTS FOR THE 3rd MILLENNIUM AGRICULTURE” ; Buletinul UASVM nr. 66, indexed in CAB Abstracts, ISI Proceedings, Thomson Reuters Master Journal List, VINITI (BDI)

**4.2.6.** Monica Marian, Leonard Mihaly-Cozmuta, Camelia Varga, Anca Mihaly-Cozmuta, 2008- *The ecology of the phytocoeno-genesis process in the tailing ponds in Maramures county*, 2008, Natura Montenegrina, nr. 7 (3), p. 41-55, ISSN 1451-5776, Podgorica. (ISI).

**4.2.7.** Camelia Varga, Monica Marian, Leonard Mihaly-Cozmuta, Anca Mihaly-Cozmuta, 2008- *The growth dynamics of selected trees in sites polluted with heavy metals neighboring Baia Mare (Romania)*, 2008, Natura Montenegrina, nr. 7 (3), p. 57-69, ISSN 1451-5776, Podgorica. (ISI)

**4.2.7.** Marian, M., Varga, C., Mihaly-Cozmuta, L., Mihaly-Cozmuta, A., Mihalescu, L., Roșca-Mare, O., Blidar, C.F., 2008. *Variance analysis on different trees species depending on soil type – uncontaminated and heavy metals contaminated ones*. Analele Univ. din Oradea, Fasc. Biologie, Tom XIV, Ed. Univ. din Oradea, ISSN: 1224-5119, Oradea, p. 41-46. (BDI)

**43.2.8.** Monica Marian, Leonard Mihaly Cozmuta, Camelia Varga, Lucia Mihalescu , Oana Rosca Mare, Anca Mihaly Cozmuta- *THE MINING ACTIVITIES IMPACT OF THE VEGETAL ASSOCIATIONS INSTALLATION ON BOZANTA MARE TAILINGS PONDS FROM NON-FERROUS ORES MINING AREA*, 2008, Studia Universitatis Vasile Goldis Arad, Seria Stiintele Vietii, <http://scientific.thomsonreuters.com/cgi-in/jrnlist/jlresults.cgi?PC=MASTER&Word=goldis>

**4.2.9.** Monica Marian, Camelia Varga, Leonard Mihaly Cozmuta, Lucia Mihalescu, Oana Rosca, Anca Mihaly Cozmuta - *RESEARCH REGARDING THE ALIEN PLANT SPECIES IN THE SATU MARE COUNTY*, 2008, Studia Universitatis Vasile Goldis Arad, Seria Stiintele Vietii, Vol. 18/2008, ISSN 1453-1038, p. 359-365. (BDI) <http://scientific.thomsonreuters.com/cgi-bin/jrnlist/jlresults.cgi?PC=MASTER&Word=goldis>

**4.2.10.** Monica Marian, Leonard Mihaly-Cozmuta, Camelia Varga, Anca Mihaly-Cozmuta, 2008- *The ecology of the phytocoeno-genesis process in the tailing ponds in Maramures county*, 2008, Natura Montenegrina, nr. 7 (3), p. 41-55, ISSN 1451-5776, Podgorica (ISI)

**4.2.11.** Camelia Varga, Monica Marian, Leonard Mihaly-Cozmuta, Anca Mihaly-Cozmuta, 2008- *The growth dynamics of selected trees in sites polluted with heavy metals neighboring Baia Mare (Romania)*, 2008, Natura Montenegrina, nr. 7 (3), p. 57-69, ISSN 1451-5776, Podgorica. (ISI)

**4.2.12.** V. Viman, A. Mihaly Cozmuta, L. Mihaly Cozmuta, M. Dobra, Gh. Vatca, 2006 – *The study of environment pollution with heavy metals by means of the emission spectrometry method*, Inductively Coupled Plasma Discharges for Spectrochemical Analysis – ICP Information Newsletter-USA, vol. 31, p. 322, ISSN 0161-6951, *The Smithsonian/NASA Astrophysics Data System, Analytical Abstracts (Royal Society of Chemistry), Russian Chemical Abstracts Journal*

**4.2.13.** V. Viman, L. Mihaly Cozmuta, A. Mihaly Cozmuta, Gh. Vatca, C. Varga, G. Oprea, 2005 – *Mathematical modeling of pollutants' dispersion in soil. I. Case study of copper dispersion*, American Journal of Environmental Sciences, 1(2), p. 126-129, ISSN 1553-345X, indexat in bazele de date: Ulrich, DOAJ, CSA, WAD, Med-Asia, Biotechnology Abstract, PTA, Biosciences Abstracts, ASA, INSPEC, IEE, genomics, EBSCO, Thompson Gale, EMBiology, SCOPUS

**4.2.14.** L. Mihaly Cozmuta, T. Visan, A. Mihaly Cozmuta, C. Varga, V. Viman, Gh. Vatca, 2005 – *Energetic aspects related to heavy metals adsorption on the surface of volcanic tuff. I. The influence of activation parameters in Cu<sup>2+</sup> adsorption*, American Journal of Environmental Sciences, 1(2), p. 159 - 163, ISSN 1553-345X, indexat in bazele de date: Ulrich, DOAJ, CSA, WAD, Med-Asia, Biotechnology Abstract, PTA, Biosciences Abstracts, ASA, INSPEC, IEE, genomics, EBSCO, Thompson Gale, EMBiology, SCOPUS

**4.2.15.** A. Mihaly Cozmuta, L. Mihaly Cozmuta, V. Viman, Gh. Vatca, C. Varga, 2005 – *Spectrometric methods used to determine heavy metals and total cyanides in accidental polluted soils*, American Journal of Applied Sciences, 2(1), p. 358-362, ISSN 1546-9239, indexat in bazele de date: DOAJ, INSPEC, ProQuest, Ulrich, CAS, WAD, Textile Abstract, PTA, ASA, Genamics, Thompson Gale, Thompson ISI, SCOPUS

**4.2.16.** V. Viman, A. Mihaly Cozmuta, L. Mihaly Cozmuta, M. Dobra, Gh. Vatca, 2004 – *Spectrometric methods used for determination of heavy metals in polluted soils*, Inductively Coupled Plasma Discharges for Spectrochemical Analysis – ICP Information Newsletter-USA, vol. 29, p. 250-251, ISSN 0161-6951, indexat in baza de date: The Smithsonian/NASA Astrophysics Data System, Analytical Abstracts (Royal Society of Chemistry), Russian Chemical Abstracts Journal

**4.2.17.** L. Mihaly Cozmuta, A. Mihaly Cozmuta, C. Varga, Gh. Hotea, 2004 – *Study about the recovery of Zn from acid mine drainage*, Journal of Mining and Metallurgy, 40(1), p. 65-74, ISSN 1450-5959, indexat în bazele de date: Chemical Abstracts, Viniti (all Russian institute of scientific and technical information of the Russian Academy of Sciences), SSCI (Serbian scientific data base).

### 4.3. PAPERS PRESENTED AT SYMPOSIA AND CONFERENCES

**4.3.1.** A Peter, E Indrea, A Mihaly-Cozmuta, L Mihaly-Cozmuta, C Nicula, H Tutu, E Bakatula, *Dual efficiency of nano-structured TiO<sub>2</sub> / zeolite systems in removal of copper (II) and lead (II) ions from aqueous solution under visible light*, PROCESSES IN ISOTOPES AND MOLECULES (PIM 2011) SEPTEMBER 29 - OCTOBER 01 CLUJ-NAPOCA, ROMANIA, AIP Conf. Proc. 1425, pp. 139-143, 2011;

**4.3.2.** M. Marian, C. Varga, L. Mihaly Cozmuta, A. Peter, A. Mihaly Cozmuta, D. Boltea, 2009 – Evaluation of Phytoremediation Potential of the Populus tremula in Tailing Ponds, Buletin USAMV Agricultura Cluj Napoca, vol 66, nr. 2, 2009, pag. 124-131, ISSN 1843-5246

**4.3.3.** Camelia Varga, Monica Marian, Leonard Mihaly Cozmuta, Anca Mihaly Cozmuta, 2008 – *Bio-accumulation of heavy metals in tailings dam vegetal species*, IAR Regional Conference on Geomorphology – Landslide, Floods and Global Environmental Change in Mountain regions, 15 – 26 septembrie 2008, Brasov, ISBN 978-973-749-434-4

**4.3.4.** Monica Marian, Camelia Varga, Leonard Mihaly Cozmuta, Anca Mihaly Cozmuta, 2008 – *Growth particularities of vegetal species in heavy metals-bearing soil*, IAR Regional Conference on Geomorphology – Landslide, Floods and Global Environmental Change in Mountain regions, 15 – 26 septembrie 2008, Brasov

**4.3.5.** Marian Monica, Camelia Varga, Mihaly Cozmuta Leonard, Mihaly Cozmuta Anca, 2008 – *Tradition and modernity in the biochemistry of vegetal resources in Maramures*, IX Congreso “Cultura Europea” Pamplona 24-27 oct. 2007

**4.3.6.** Marian Monica, Coman Mirela, Mihaly–Cozmuta Leonard, Varga Camelia, Mihaly Cozmuta Anca, 2008 - Research regarding the alien plants species in the surrounding of Satu Mare town (Satu Mare county) in North-West of Romania, 17th International Workshop "European Vegetation Survey" Brno, Czech Republic, 1-4 May 2008

**4.3.7.** Marian, Monica, Mihaly–Cozmuta, L., Varga, Camelia, Coman, Mirela, Mihaly Cozmuta Anca, 2008 - The installation of primary vegetation on tailing ponds from non ferrous ores mining area in N-W Carpathians, 17th International Workshop "European Vegetation Survey" Brno, Czech Republic, 1-4 May 2008

**4.3.8.** Varga Camelia, Marian Monica, Mihaly–Cozmuta L., Coman Mirela, Mihaly Cozmuta Anca, Mare Rosca Oana, 2008 - The mining activities impact on the vegetal associations in surrounding of Baia Mare town (Maramures county) 17th International Workshop "European Vegetation Survey" Brno, Czech Republic, 1-4 May 2008

**4.3.9.** L. Mihaly Cozmuta , C. Varga, A. Mihaly Cozmuta, 2007 - Recovery of copper ions from acid mine wastewaters using ionic exchange method, CAPACITY BUILDING ON THE ECOMINING PRINCIPLE, International Seminar, Ecomining –Europe in 21th Century – the 2<sup>nd</sup> edition, 24-26 Octombrie, Sovata Prajd, 2007, p. 413-423, ISSN 978-973-741-071-9

**4.3.10.** L. Mihaly Cozmuta, C. Varga, M. Marian, A. Mihaly Cozmuta, 2007 - Physical and chemical stability assessment of tailings ponds, CAPACITY BUILDING ON THE ECOMINING PRINCIPLE, International Seminar Ecomining –Europe in 21th Century – the 2<sup>nd</sup> edition, 24-26 Octombrie, Sovata &Prajd, 2007, p. 153-163, ISSN 978-973-741-071-9, pag. 152-161

**4.3.11.** A. Mihaly Cozmuta, L. Mihaly Cozmuta, C. Varga, 2007 - *Pollution risk assessment in non-ferrous ores processing technologies. I. Disposal of wastewaters*, 1<sup>st</sup> International work shop Optoelectronic Techniques for Environmental Monitoring and Risk Assessment, 21-24 Mai, Bucuresti ISBN: 973-85818-9-3, pag. 145-151

**4.3.12.** L. Mihaly Cozmuta, A. Mihaly Cozmuta, C. Varga, 2007- *Risk elements in designing and exploitation of tailings ponds*, 1<sup>st</sup> International work shop Optoelectronic Techniques for Environmental Monitoring and Risk Assessment, 21-24 Mai, Bucuresti ISBN: 973-85818-9-3, 152-162

**4.3.13.** A. Mihaly Cozmuta, L. Mihaly Cozmuta, C. Varga, I. Bud, I. Denut, 2007 - *Environment pollution with heavy metals caused by the tailings ponds' failures*, International work shop Heavy metals in the environment and the wellbeing of human and animals, Bucuresti 20 – 21 aprilie, ISBN 978-973-0-04962-6 (CD)

**4.3.14.** Vasile Viman, Anca Mihaly-Cozmuta, Gheorghe Vatca, Leonard Mihaly, 2007-Cozmuta, Vasile Anitas - Analysis of Soil's Pollutant Heavy Metals, PITTCON Conference, 25.02.-2.03.2007, Chicago USA, 2320, CD

**4.3.15.** A. Mihaly Cozmuta, L. Mihaly Cozmuta, V. Viman, C. Varga, 2006 – *The influence of accidental spills on quality of soils. Mathematical modelling of pollutant's distribution*, International Conference of Physical Chemistry ROMPHYSCHM -12, 6-8 Septembrie, Bucuresti, pag. 219 ISSN 1453-7672

**4.3.16.** A. Mihaly Cozmuta, L. Mihaly Cozmuta, V. Viman, C. Varga, I. Frind, 2006 – *Assessement of pollutant impact of tailing ponds on soil. Case study: cyanide dispersion*, 1<sup>st</sup> International Summer School Optoelectronic Techniques for Environmental Monitoring and Risk Assessment, 31.07-09.08. 2006, Baia Mare, p.229-236, ISBN 973-85818-8-5, 978-97-85818-8-3

**4.3.17.** E.A. Konradi, M. Ponta, T. Frentiu, M. Senila, C. Roman, A. Mihaly Cozmuta, E. Cordos, 2006 – *Preliminary study on soil lead pollution around the Bozanta Mare tailing pond using Tessier's extraction scheme*, 1<sup>st</sup> International Summer School: Optoelectronic Techniques for Environmental Monitoring and Risk Assessment, 31 Julie-09. August 2006, Baia Mare, p. 259-261, ISBN 973-85818-8-5, 978-97-85818-8-3

**4.3.17.** L. Mihaly Cozmuta, A. Mihaly Cozmuta, V. Viman, C. Varga. C. Cotea, 2006 – *The study of environment pollution with heavy metals. Case study: contamination of soil with lead*, 1<sup>st</sup> International Summer School Optoelectronic Techniques for Environmental Monitoring and Risk Assessment, 31 Julie-09. August 2006, Baia Mare, p. 221-227, ISBN 973-85818-8-5, 978-97-85818-8-3

**4.3.18.** V. Vimant, A. Mihaly Cozmuta, Gh. Vatca, L. Mihaly Cozmuta, 2004 – *The pollution of soils with heavy metals*, the 20<sup>th</sup> Annual International Conference on Soils, Sediments and Water, October 18-21, University of Massachusetts at Amherst, ISSN: 0038-0717

#### **4.4. NATIONAL RESEARCH PROJECTS**

**4.4.1. Title:** *Rehabilitation of tailings ponds by application ofd amendments and cultivation of vegetal species with high adaptability to the heavy metals-RIVAM*

**Time range:** 2008-2011

**Coordinator:** Leonard Mihaly Cozmuta- North University of Baia Mare

**Members:** Camelia Varga, Anca Mihaly Cozmuta, Anca Peter, etc.

Funding source: CNMP in the frame of PNCDI 2

**Partners:** Universitatea de Nord Baia Mare, Universitatea din Oradea, Statiunea de Cercetari Agricole Livada Satu Mare

**Budget:** 1.900.000 RON

**4.4.2. Title:** *Identification of technical solution for reducing the pollution impact on environment (soil, water) generated by the mine waters/hazardous with high content of heavy metals*

**Time range:** 2007-2008

**Project director:** Denut Ioan- North University of Baia Mare, Romania

**Members:** Leonard Mihaly Cozmuta, Dorina Baciu, Bud Ionica, Anca Mihaly Cozmuta

**Funding source:** Ministry of Economy and Finances

**Partners:** INCD-ECOIND Bucureşti, ICD-CEPROMIN Deva, Universitatea de Nord din Baia Mare, SC ICPM SA Baia Mare, INCD-IMNR Bucureşti, Universitatea din Petroşani.

**Budget:** 35.000 RON

**4.4.3. Title:** *Monitoring of soil microbiota for it utilization in ecological rehabilitation of tailing ponds--AMSREI*

**Time range:** 2007-2010

**Coordinator:** Monica Marian – North University of Baia Mare, Romania

**Members:** Leonard Mihaly Cozmuta, Camelia Varga, Anca Mihaly Cozmuta, Anca Peter,etc.

**Funding source:** CNMP in the frame of PNCDI 2

**Partners:** Universitatea de Nord Baia Mare, Universitatea din Oradea, Statiunea de Cercetari Agricole Livada Satu Mare

**Budget:** 1.600.000 RON

**4.4.4. Title:** *Designing the hazards charts and environment assessment in mining areas of Maramures and Satu Mare counties using GIS - SIG*

**Time range:** 2005-2008

**Project director:** Anca Mihaly Cozmuta - North University of Baia Mare, Romania

**Members:** Leonard Mihaly Cozmuta, Camelia Nicula, etc.

**Funding source:** CNCSIS

**Partners:** Institutul de Geografie al Academiei Romane, Institutul de Instrumentatie Analitica Cluj Napoca, Geoproiect Bucuresti, Universitatea de Nord Baia Mare, FSM Cluj Napoca

**Budget:** 190.000 RON

**4.4.5. Title:** *Connexions to European Excelency Research Related to Environment Problems - CONEX*

**Time range:** 2005-2007

**Coordinator:** Vasile Viman – North University of Baia Mare, Romania

**Members:** Leonard Mihaly Cozmuta, Camelia Varga, Anca Mihaly Cozmuta, Anca Peter,.etc.

**Funding source:** CNCSIS

**Partners:** Universitatea de Nord Baia Mare – Romania, Institutul Național de Optoelectronică – INOE București, Institutul de Instrumentație Analitică -ICIA-CENTI Cluj Napoca

**Budget:** 100.000 RON pentru UBM

**4.4.6. Title:** *Solutions for reducing the impact on environment (soi, water) of the mining waters/hazardous*

**Time range:** 2005-2006

**Project director:** Ioan Denut

**Members:** Leonard Mihaly Cozmuta, Dorina Baciu, Anca Mihaly Cozmuta, Ioan Bud, Simona Duma, etc.

**Funding source:** CNCSIS

**Partners:** Universitatea de Nord Baia Mare, INCD-ECOIND Bucuresti, ICD-CEPROMIN Deva, EVALPROTECTSRL Baia Mare, INCD-IMNR Bucuresti, INCD-ICIM Bucuresti.

## **4.5. INTERNATIONAL RESEARCH PROJECTS**

**4.5.1. Title :** *CII-HU-0010-03-0809 - Teaching and Learning Bioanalysis*

**Coordinator:** Prof.dr. Anca Mihaly Cozmuta, UTC-N CUNBM-Romania

**Members:** Leonard Mihaly Cozmuta, Anca Peter, Camelia Nicula

**Time range:** 2011-2012

**Partners:** University of Pécs-Ungaria (coordonator consortiu), Universitatea de Nord Baia Mare - Romania, Graz University of Technology-Poland, Neophit Rilski South-West University-Bulgaria, Sofia University St.Kliment Ohridski-Bulgaria, University of Zagreb-Croatia, Charles University in Prague-Cehia, Palacký University, Olomouc-Cehia, Eötvös Loránd University – Ungaria, University of Debrecen-Ungaria, University Sts.Cyril and Methodius – Skopje-Macedonia, Warsaw University-Polenia, Universitatea babes Bolyai Cluj Napoca, Universitatea de Medicina si Farmacie Targu Mures -Romania, University in Prishtina with temporary seat in Kosovska Mitrovica, Comenius University in Bratislava-Slovacia, Constantine The Philosopher University in Nitra-Slovacia

**4.5.2. Title :** *CII-HU-0010-03-0809 - Teaching and Learning Bioanalysis*

**Coordinator:** Prof.dr. Anca Mihaly Cozmuta, UTC-N CUNBM-Romania

**Members:** Leonard Mihaly Cozmuta, Anca Peter, Camelia Nicula

**Time range:** 2010-2011

**Partners:** University of Pécs-Ungaria (coordonator consortiu), Universitatea de Nord Baia Mare - Romania, Graz University of Technology-Poland, Neophit Rilski South-West University-Bulgaria, Sofia University St.Kliment Ohridski-Bulgaria, University of Zagreb-Croatia, Charles University in Prague-Cehia, Palacký University, Olomouc-Cehia, Eötvös Loránd University – Ungaria, University of Debrecen-Ungaria, University Sts.Cyril and Methodius – Skopje-Macedonia, Warsaw University-Polenia, Universitatea babes Bolyai Cluj Napoca, Universitatea de Medicina si Farmacie Targu Mures

-Romania, University in Prishtina with temporary seat in Kosovska Mitrovica, Comenius University in Bratislava-Slovacia, Constantine The Philosopher University in Nitra-Slovacia

**4.5.3. Title:** *Developing of a biophysical system based on zeolites-microorganisms-vegetal species for ecoremediation of tailing ponds coming from gold-silver preparation industry - ZEMIP*

**Coordinator:** Assoc.prof. Leonard Mihaly Cozmuta, UTC-N CUNBM-Romania

**Members:** Anca Mihaly Cozmuta, Camelia Nicula, Anca Peter

**Time range:** 2009-2011

**Partners:** North University of Baia Mare, University of Johannesburg – South Africa

**4.5.4. Title :** *CII-HU-0010-03-0809 - Teaching and Learning Bioanalysis*

**Coordinator:** Prof.dr. Anca Mihaly Cozmuta, UTC-N CUNBM-Romania

**Members:** Leonard Mihaly Cozmuta, Anca Peter, Camelia Nicula

**Time range:** 2009-2010

**Partners:** University of Pécs-Ungaria (coordonator consorciu), Universitatea de Nord Baia Mare - Romania, Graz University of Technology-Poland, Neophit Rilski South-West University-Bulgaria, Sofia University St.Kliment Ohridski-Bulgaria, University of Zagreb-Croatia, Charles University in Prague-Cehia, Palacký University, Olomouc-Cehia, Eötvös Loránd University – Ungaria, University of Debrecen-Ungaria, University Sts.Cyril and Methodius – Skopje-Macedonia, Warsaw University-Polonia, Universitatea babes Bolyai Cluj Napoca,Universitatea de Medicina si Farmacie Targu Mures -Romania, University in Prishtina with temporary seat in Kosovska Mitrovica, Comenius University in Bratislava-Slovacia, Constantine The Philosopher University in Nitra-Slovacia

**4.5.5. Title:** *Education in separation and identification of organic xenobiotics in environmental samples and food product*

**Coordinator:** Prof.dr. Anca Mihaly Cozmuta, UTC-N CUNBM-Romania

**Members:** Leonard Mihaly Cozmuta, Anca Peter, Camelia Nicula

**Time range:** 2008-2009

**Sursa de finantare:** Uniunea Europeană în cadrul CEEPUS (Central European Exchange Program for

**Partners:** Nicolaus Copernicus University – Torun, Poland (coordinator retea), Universitatea de Nord Baia Mare -Romania, University Pardubice-Czech Republic, Slovak University Technology – Slovak Republic, Technical University of Graz- Austria, University of Pecs – Hungary, Agricultural University Wroclaw – Poland, Medical University of Gdansk – Poland, Comenius University of Bratislava – Slovakia, University of Ljubljana – Slovenia, University of Sofia – Bulgaria, University of Zagreb-Croatia.

**4.5.6 Title:** *Education in separation and identification of organic xenobiotics in environmental samples and food product*

**Time range:** 2007-2008

**Coordinator:** Prof.dr. Anca Mihaly Cozmuta, UTC-N CUNBM-Romania

**Members:** Leonard Mihaly Cozmuta, Anca Peter, Camelia Nicula

**Partners:** Universitatea de Nord Baia Mare -Romania, University Pardubice-Czech Republic, Slovak University Technology – Slovak Republic, Technical University of Graz- Austria, University of Pecs – Hungary, Agricultural University Wroclaw – Poland, Medical University of Gdansk – Poland, Comenius University of Bratislava – Slovakia, University of Ljubljana – Slovenia, University of Sofia – Bulgaria, University of Zagreb-Croatia, Nicolaus Copernicus University – Torun, Poland

**4.5.7. Title:** *Education in separation and identification of organic xenobiotics in environmental samples and food product*

**Coordinator:** Prof.dr. Anca Mihaly Cozmuta, UTC-N CUNBM-Romania

**Members:** Leonard Mihaly Cozmuta, Anca Peter, Camelia Nicula

**Time range:** 2006-2007

**Partners:** Universitatea de Nord Baia Mare -Romania, University Pardubice-Czech Republic, Slovak University Technology – Slovak Republic, Technical University of Graz- Austria, University of Pecs – Hungary, Agricultural University Wroclaw – Poland, Medical University of Gdansk – Poland, Comenius University of Bratislava – Slovakia, University of Ljubljana – Slovenia, University of Sofia – Bulgaria, University of Zagreb-Croatia, Nicolaus Copernicus University – Torun, Poland

**4.5.8 Title:** *Education in separation and identification of organic xenobiotics in environmental samples and food product*

**Director:** Prof.dr.ing. Anca Mihaly Cozmuta

**Members:** Associate prof.dr. Leonard Mihaly Cozmuta, Associate prof. dr. Camelia Varga

**Time range:** 2005-2006

**Partners:** Universitatea de Nord Baia Mare -Romania, University Pardubice-Czech Republic, Slovak University Technology – Slovak Republic, Technical University of Graz- Austria, University of Pecs – Hungary, Agricultural University Wroclaw – Poland, Medical University of Gdansk – Poland, Comenius University of Bratislava – Slovakia, University of Ljubljana – Slovenia, University of Sofia – Bulgaria, University of Zagreb-Croatia, Nicolaus Copernicus University – Torun, Poland

**4.5.9.Title:** *Investigation of the Risk of Cyanide in Gold Leaching on Health an Environment in Central Asia and Central Europe, IRCYL, ICA 2- CT- 2000- 10065.*

**Coordinator:** Prof.dr. Vasile Viman

**Members:** Anca Mihaly Cozmuta, Leonard Mihaly Cozmuta

**Time range:** 2000-2004

**Partners:** IC Consultants Ltd Uk (coordonator consortium), Universitatea de Nord Baia Mare – Romania, Medical Institute for Environmental Hygiene Germany; InfoMine Rusia; Kyrgyz Research Institute of Oncology and Radiology Kyrgyzstan; Kyrgyz Scientific Center of Haematology Kyrgyzstan; Institute for Regional Studies Kyrgyzstan; Pshysico- Chemical Methods Analysis Center Almaty Kazakhstan; University Babes Bolyai Cluj Napoca Romania; Institute of Public Hygiene Cluj Napoca Romania; Institute of Analytical Instrumentation and Environmental Analyses Cluj Napoca Romania; Mining Consortium Research and Companies Deva Romania.

## **5. MOBILITIES**

**5.1.** Invited professor-University of Johannesburg, South Africa-1.08.2009-25.08.2009

**5.2.** Invited professor - Department of Environmental Chemistry & Ecoanalytics of Nicolaus Copernicus University of Torun – Poland (2005)

## **6. RESEARCH PROJECTS EVALUATOR**

6.1. Evaluator of Education and Research Ministry of Bulgaria for research projects, 2009

6.2. Evaluator of Education and Research Ministry Romania, 2008

6.3. Evaluator of EU for INTERREG project, 2008

6.4. Evaluator of Education and Research Ministry of Bulgaria for research projects, 2008

6.5. Evaluator OF National Research Foundation – SEE-ERA.NET Pilot Joint Call-2007; code evaluator: 5224

6.6. Evaluator of EU for Marie Curie projects; FP 5- 2005-2006; cod evaluator: EX02B042388

## 7. EDITOR/SCIENTIFIC EVALUATOR

- ☞ Journal of Food Sciences
- ☞ Carpathian Journal of Food Science and Technology
- ☞ Journal of Veterinary Medicine and Animal Health
- ☞ Analele Universitatii din Oradea— Biology Serie

## 8. SPECIALIZATION

- 8.1. From farm to Fork European Food Safety Legislation - LLP Leonardo da Vinci Program, 2011
- 8.2. North University of Baia Mare and L'Ecole des Mines d'Ales – France: „Prise en compte de l'environnement en exploitation miniere”, 1995

## 9. Ph D Thesis evaluator

- 9.1. Laura Bretan, USAMV Cluj Napoca, decembrie 2012

## 10. CITED PAPERS (<http://www.scopus.com/>)

Cited paper	Paper that cites
Mihaly-Cozmuta L, Mihaly-Cozmuta A, Peter A, Nicula C, Tutu H, Silipas D, Indrea E. Adsorption of heavy metal cations by Na-clinoptilolite: equilibrium and selectivity studies. <i>J Environ Manage</i> , 2014, 137:69–80	Yuanyuan Ge, Xuemin Cui, Yan Kong, Zhili Li, Yan He, Qianqian Zhou. Porous geopolymeric spheres for removal of Cu(II) from aqueous solution: Synthesis and evaluation. <i>Journal of Hazardous Materials</i> 283 (2015) 244–251. Manasi, Vidya Rajesh, N. Rajesh. Adsorption isotherms, kinetics and thermodynamic studies towards understanding the interaction between a microbe immobilized polysaccharide matrix and lead. <i>Chemical Engineering Journal</i> , 248, 15 July 2014, 342–351 Afrodita Zendelska, Mirjana Golomeova. Effect of competing cations (Cu, Zn, Mn, Pb) adsorbed by natural zeolite. Date of publication: july 17, 2014. Issn: 2348-4098, Volume 02 issue 05 june 2014 Marija T. Mihajlovic', Slavica S. Lazarevic', Ivona M. Jankovic'-Castvan, Janez Kovac', Bojan M. Jokic', Djordje T. Janackovic', Rada D. Petrovic. Kinetics, thermodynamics, and structural investigations on the removal of Pb <sup>2+</sup> , Cd <sup>2+</sup> , and Zn <sup>2+</sup> from multicomponent solutions onto natural and Fe(III)-modified zeolites. <i>Clean Techn Environ Policy</i> . DOI 10.1007/s10098-014-0794-8
E.N. Bakatula, E.M. Cukrowska, I.M. Weiersbye, L. Mihaly-Cozmuta, A. Peter, H. Tutu . Biosorption of trace elements from aqueous systems in gold mining sites by the filamentous green algae ( <i>Oedogonium</i> sp.). <i>Journal of Geochemical Exploration</i> , Volume 144, Part C, 2014, pp. 492-503	Joel T. Kidgell, Rocky de Nys, Nicholas A. Paul, David A. Roberts. The Sequential Application of Macroalgal Biosorbents for the Bioremediation of a Complex Industrial Effluent, Published: July 25, 2014, DOI: 10.1371/journal.pone.0101309, PLoS ON, www.ploson
Peter, Anca; Mihaly-Cozmuta, Leonard; Mihaly-Cozmuta, Anca; Nicula, Camelia; Indrea, Emil; Tutu, Hanganani . Calcium- and ammonium ion-modification of zeolite amendments affects the metal-uptake of Hieracium piloselloides in a dose-dependent way, <i>JOURNAL OF ENVIRONMENTAL, MONITORING</i> , 14(10), pp.2807-2814, DOI: 10.1039/c2em30301a, 2012, ISSN: 1464-0325	Damian, Floarea; Damian, Gheorghe; Lacatusu, Radu; Postolache, Carmen; Iepure, Gheorghe; Jelea, Marian; Nasui, Daniel. The heavy metals immobilization in polluted soils from Romania by the natural zeolites use. <i>CARPATHIAN JOURNAL OF EARTH AND ENVIRONMENTAL SCIENCES</i> , 8(4), pp.231-250, 2013, ISSN: 1842-4090, ISN: 1844-489X

Peter, Anca; Nicula, Camelia; Mihaly-Cozmuta, Anca; Mihaly-Cozmuta, Leonard; Indrea, Emil. Chemical and sensory changes of different dairy products during storage in packages containing nanocrystallised TiO <sub>2</sub> . INTERNATIONAL JOURNAL OF FOOD SCIENCE AND TECHNOLOGY, 47(7), pp.1448-1456, DOI: 10.1111/j.1365-2621.2012.02992.x, 2012, ISSN: 0950-5423	Ziemkowska, Wanda; Basiak, Dariusz; Kurtycz, Patrycja; Jastrzebska, Agnieszka; Olszyna, Andrzej; Kunicki, Antoni. Nano-titanium oxide doped with gold, silver, and palladium - synthesis and structural characterization. CHEMICAL PAPERS, 68(7), pp. 959-968, DOI: 10.2478/s11696-014-0537-7, 2014. ISSN: 0366-6352, eISSN: 1336-9075
	Ouzounidou, Georgia; Papadopoulou, Kalliope K.; Asfi, Maria; Mirtziou, Ioanna; Gaitis, Fragiskos. Efficacy of different chemicals on shelf life extension of parsley stored at two temperatures. INTERNATIONAL JOURNAL OF FOOD SCIENCE AND TECHNOLOGY, 48(8), pp. 1610-1617, DOI: 10.1111/ijfs.12131, 2013, ISSN: 0950-5423
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