



Universitatea
Transilvania
din Braşov

raMat 2022

12TH INTERNATIONAL CONFERENCE ON MATERIALS SCIENCE & ENGINEERING





Braşov - ROMANIA
March 9 - 12, 2022

PROGRAM OVERVIEW

Conference's Partners:

Apel Laser, Namicon, Sartorom



Organized by
Materials Science and Engineering Faculty
Transilvania University of Brasov, Romania

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Maria STOICĂNESCU

Conference Sections

- I. Metallic materials
- II. Biomaterials
- III. Ceramics, polymers and composite materials
- IV. Surface engineering
- V. Nanomaterials
- VI. Welding engineering and safety engineering
- VII. Additive manufacturing
- VIII. Engineering: Education and Entrepreneurship

Hall B = room U I 6

Hall C = room U I 3

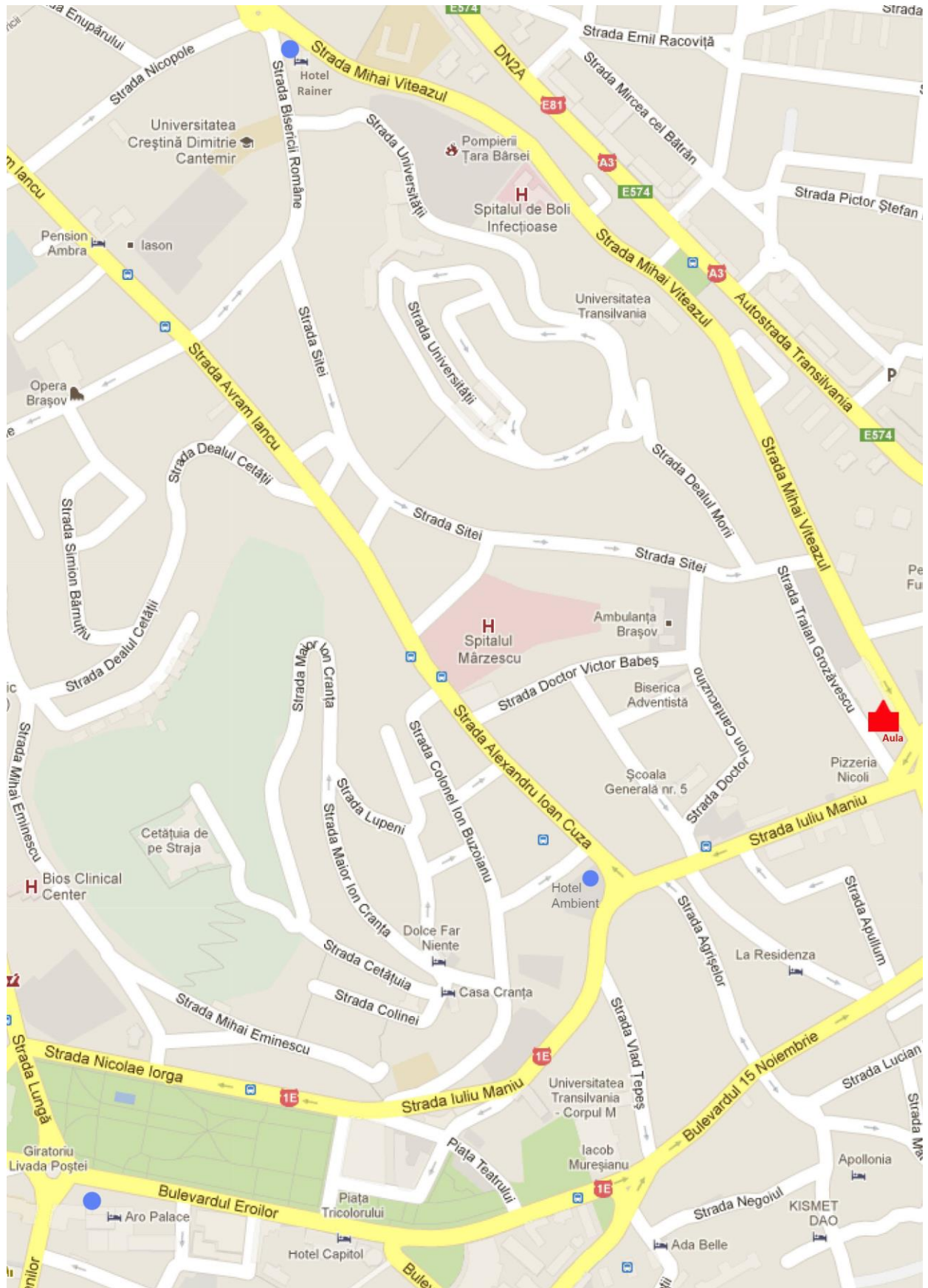
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Yuhou WU, Shenyang Jianzhu University, China

Conference Venue

Brașov is situated in the central part of the country being considered the second most important town in Romania. Located 160 km from Bucharest (Romania's capital), Brașov is surrounded by the Carpathian Mountains, being in the middle of the country at the crossroads of the Eastern Carpathian and the Southern Carpathians. Across the mountains to the South and East there are Wallachia and Moldavia, to the West the Banat region and to the North the rolling hills of Northern Transylvania.

The 12th International Conference of Materials Science and Engineering – BraMat 2022, will be held at Sergiu T. Chiriacescu Aula, 41A Iuliu Maniu Str., Brașov, ROMANIA.



Program (Outline)

Wednesday, 09.03.2022

- 16.00: Registration (Hall H)
- 16.30: Opening ceremony (Main Hall A)
- 17.00: Honorary Professor ceremony (Main Hall A)
- 17.30: Musical moment 1 (Main Hall A)
- 17.45: Plenary lectures 1 (Main Hall A)
- 19.15: Musical moment 2 (Main Hall A)
- 19.30: Welcome cocktail (Hall H)

Thursday, 10.03.2022

- 9.00: Registration (Hall H)
- 9.30: Plenary lectures 2 (Main Hall A)
- 10.30: Coffee break (Hall H)
- 11.00: Plenary lectures 3 (Main Hall A)
- 12.00: Workshop (Main Hall A)
- 13.00: Lunch (Hall H)
- 14.30: Oral presentations 1 (Hall C)
- 14.30: Online presentations 1 (Main Hall A for audience)
- 14.30: Online presentations 2 (Hall B for audience)
- 16.00: MDPI Materials presentation (Hall C)
- 16.30: Coffee break (Hall H)
- 17.00: Online presentations 3 (Main Hall A for audience)
- 17.00: Online presentations 4 (Hall B for audience)
- 17.00: Poster presentations 1 (Hall G)
- 9.30 – 19.00: Companies exhibitions (Hall G)
- 20.00: Gala dinner (ARO PALACE HOTEL - night bar)

Friday, 11.03.2022

- 10.00: Oral presentations 2 (Hall C)
- 10.00: Oral presentations 3 (Hall B)
- 10.00: Online presentations 5 (Main Hall A for audience)
- 11.30: Coffee break (Hall H)
- 12.00: Oral presentations 4 (Hall C)
- 12.00: Online presentations 6 (Hall B for audience)
- 12.00: Online presentations 7 (Main Hall A for audience)
- 12.00: Poster presentations 2 (Hall G)
- 14.00: Camp fire and barbeque (Garcini research base)
- 18.00: Closing Ceremony (Garcini research base)

Saturday, 12.03.2022

- Free visit of Brasov city

Program (detailed)

Wednesday, 9.03.2022

16.00: Registration

Main Hall A

16.30: Opening Ceremony

Professor Dr. Eng. **Daniel MUNTEANU**, BraMat Conference Chairman, Vice-Rector of Transilvania University of Braşov, ROMANIA

17.00: Honorary Professor ceremony

17.30: Musical moment 1

17.45: Plenary Lectures 1

Chairperson: **Daniel MUNTEANU**, Transilvania University of Braşov, ROMANIA

17.45: **P.01. Technology and material trends affecting future material testing**

K. CIEROCKI, ZwickRoell GmbH & Co.KG, GERMANY

18.15: **P.02. Recent advances and tentative applications of new titanium alloys**

J.C. MIRZA-ROSCA, University of Las Palmas de Gran Canaria, SPAIN

18.45: **P.03. Laser and plasma based techniques for preparation and functionalization of biomimetic surfaces for nanofibers handling**

M. DINESCU, National Institute for Laser Plasma & Radiation Physics, ROMANIA

19.15: Musical moment 2

Hall H

19.30: Welcome cocktail

Thursday, 10.03.2022

9.00: Registration

Main Hall A

9.30: Plenary Lectures 2

Chairperson: **Julia Claudia MIRZA-ROSCA**, University of Las Palmas de Gran Canaria, SPAIN

9.30: **P.04. Clinical importance of biocorrosion of metal implants - experimentation and modeling**

A. ANAYIOTOS, Cyprus University of Technology, CYPRUS

10.00: **P.05. Nanostructured thin films for sensing applications**

F. VAZ, Minho University, PORTUGAL

10.30: Coffee Break

Main Hall A

11.00: Plenary Lectures 3

Chairperson: **Andreas ANAYIOTOS**, Cyprus University of Technology, CYPRUS

11.00: **P.06. Electrodeposition and additive manufacturing meet**

N. ELIAZ, Tel-Aviv University, ISRAEL

11.30: **P.07. Laser polishing of CuZn42 parts produced by powder bed fusion**

A. GATTO, University of Modena and Reggio Emilia, ITALY

12.00: Workshop

How to choose the right journal for your paper

H. RUDOLPH, Editor-in-chief at Applied Surface Science, Elsevier, Netherlands Defense Academy Faculty of Military Sciences, The Netherlands

Hall H

13.00: Lunch

Hall C

14.30: Oral presentations 1

Chairpersons: **Ioan ARDELEAN**, Technical University of Cluj-Napoca, ROMANIA

Liana Sanda BALTEȘ, Transilvania University of Brasov, ROMANIA

14.30: **IV.O.1. Transition of research topic: from multifunctional oxynitride films to mechanical and UV protection of organic complex substrates**

L. CUNHA, C.I. da SILVA OLIVEIRA, B. TISS, D. MARTÍNEZ, Physics Center of Minho and Porto Universities -CF-UM-UP, Braga, PORTUGAL

C. MANSILLA, CTECHnano Coatings Technologies S.L., San Sebastián, SPAIN

14.45: **IV.O.2. Science and engineering in diagnosis and preservation of cultural heritage -Promising performances and basic approach**

R.M. ION, "Valahia" University of Târgoviște, Council of academic doctoral studies, ICECHIM, Dept. Evaluation and Conservation of Cultural Heritage, Bucharest, ROMANIA

15.00: **IV.O.3. Development of copper based transparent heat reflectors by a combined design and experimental approach**

I. PANA, A.C. PARAU, M. DINU, A.E. KISS, L.R. CONSTANTIN, C. VITELARU, National Institute of Research and Development for Optoelectronics—INOE 2000, Magurele, ROMANIA

15.15: **IV.O.4. Ni-Fe-X-Al@oxide powders and Ni-Fe based oxide matrix compacts - synthesis and characterization**

T.F. MARINCA, A.I. SULE, M.C. SAS, F. POPA, B.V. NEAMȚU, C.V. PRICĂ, N.A. SECHEL, I. CHICINAȘ, Technical University of Cluj-Napoca, Materials Science and Engineering Department, ROMANIA

A. MESAROȘ, Technical University of Cluj-Napoca, Physics and Chemistry Department, Center for Superconductivity, Spintronics and Surface Science, ROMANIA

R. HIRIAN, Babeș-Bolyai University, Faculty of Physics, Cluj-Napoca, ROMANIA

15.30: **IV.O.5. Wettability and surface roughness analysis of laser surface textured AISI 430 stainless steel**

E.R. MOLDOVAN, Transilvania University of Brasov, Materials Engineering and Welding Department, Brașov, ROMANIA

C. CONCESO DORIA, BSH Electrodomésticos España, Zaragoza, SPAIN

J.L. OCAÑA MORENO, Universidad Politécnica de Madrid, SPAIN

L.S. BALTEȘ, C. CROITORU, E.M. STANCIU, A. PASCU, M.H. ȚIEREAN, Transilvania University of Brasov, Materials Engineering and Welding Department, Brașov, ROMANIA

14.30: Online presentations 1 (Main Hall A for audience)

Chairpersons: **Claudia LOPES**, University of Minho, PORTUGAL
Camelia GABOR, Transilvania University of Braşov, ROMANIA

14.30: V.OL.1. Diocetyl sodium sulfosuccinate - templated peg-silica nanoparticles loaded with curcumin and Ag NPs

C.L. NISTOR, C.I. MIHĂESCU, S.G. BURLACU, C. PETCU, C. NINCIULEANU, B. TRICĂ, INCDCP-ICECHIM Bucharest, ROMANIA
M.A. TĂNASE, L.O. CINTEZĂ, Faculty of Chemistry, University of Bucharest, ROMANIA
B. RADU, Department of Anatomy Animal Physiology and Biophysics, Faculty of Biology, University of Bucharest, ROMANIA

14.45: V.OL.2. Novel [2-(4-chloro-phenylcarbamoil)-phenoxy]-acetic acid ethyl ester : β -cyclodextrin inclusion complex

I.M.C. IENĂSCU, A.M. DABICI, National Institute of Research and Development for Electrochemistry and Condensed Matter, Timișoara; "Vasile Goldiș" Western University of Arad, Faculty of Pharmacy, Arad, ROMANIA
A. CĂTA, M.N. ȘTEFĂNUȚ, P. SFIRLOAGĂ, C. MOȘOARCĂ, D. URSU, National Institute of Research and Development for Electrochemistry and Condensed Matter, Timișoara, ROMANIA
G. RUSU, Politehnica University of Timișoara, Industrial Chemistry and Environmental Engineering Faculty, Timișoara, ROMANIA

15.00: V.OL.3. Preparation of bioinspired thermal comfort nanocomposites and calculations of heat flux using first principles

G. STIUBIANU, A. BARGAN, M. DASCALU, A. BELE, C. TUGUI, C. RACLES, M. CAZACU, Institute of Macromolecular Chemistry Petru Poni Iasi, Inorganic Polymers Department, ROMANIA
C. URSU, Institute of Macromolecular Chemistry Petru Poni Iasi, Physics of Polymers and Polymeric Materials Department, ROMANIA

15.15: V.OL.4. New photocatalyst obtained through pd adsorption onto ionic liquid functionalized layered double hydroxide

N.S. TOLEA, L. LUPA, L. COCHECI, University Politehnica Timisoara, Faculty of Industrial Chemistry and Environmental Engineering, ROMANIA

15:30: V.OL.5. Sustainable synthesis of UiO-66 metal-organic framework using terephthalic acid as ligand

V.-C. NICULESCU, S.L. BADEA, M. CONSTANTINESCU, F. BUCURA A. SOARE, S. ENACHE, D. ION-EBRASU, National Research and Development Institute for Cryogenic and Isotopic Technologies – ICSI Ramnicu Valcea, ROMANIA

15:45: V.OL.6. Tuning the refractive index sensitivity of LSPR-based thin films sensors

D. COSTA, M.S. RODRIGUES, J. BORGES, F. VAZ, Centro de Física das Universidades do Minho e Porto, Universidade do Minho, Campus de Gualtar, Braga, PORTUGAL

16:00: V.OL.7. Thermoelectric effect in NiFe/Cr/NiFe multilayers

M.A. CORREA, F. BOHN, H. CASTRO, Departamento de Física, Universidade Federal do Rio Grande do Norte, Natal, BRAZIL
A.L.R. SOUZA, Departamento de Física, Universidade Federal do Rio Grande do Norte, Natal, BRAZIL
A. FERREIRA, F. VAZ, Centro de Física, Universidade do Minho, Braga, PORTUGAL

16:15: V.OL.8. Plasmonic behaviour of Au-AlN thin films deposited by glancing angle deposition

D.I. MEIRA, J. BORGES, F. VAZ, Centro de Física, Universidade do Minho, Campus de Gualtar, Braga, PORTUGAL

14.30: Online presentations 2 (Hall B for audience)

Chairpersons: **Mihai BREBU**, "Petru Poni" Institute of Macromolecular Chemistry, Iasi, ROMANIA
Cătălin CROITORU, Transilvania University of Braşov, ROMANIA

14.30: III.OL.1. Sol-gel transition in polysulfonic systems containing triethylphosphonium groups

A.M. DOBOS, "Petru Poni" Institute of Macromolecular Chemistry, Polycondensation and Thermostable Polymers Department, Iasi, ROMANIA

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A. POPA, “Coriolan Dragulescu” Institute of Chemistry, Timisoara, ROMANIA

A. FILIMON, “Petru Poni” Institute of Macromolecular Chemistry, Polycondensation and Thermostable Polymers Department, Iasi, ROMANIA

14.45: III.OL.2. Development of new composite membranes based on functionalized polysulfone and ionic liquids for cadmium separation from aqueous solution

L. LUPA, University Politehnica Timisoara, Faculty of Industrial Chemistry and Environmental Engineering, Timisoara, ROMANIA

I. STOICA, “Petru Poni” Institute of Macromolecular Chemistry, Iasi, ROMANIA

L. COCHECI, P. NEGREA, University Politehnica Timisoara, Faculty of Industrial Chemistry and Environmental Engineering, Timisoara, ROMANIA

A. FILIMON, “Petru Poni” Institute of Macromolecular Chemistry, Iasi, ROMANIA

15.00: III.OL.3. A proposed method to evaluate the effect of changing the kerfing parameters upon the static bending behavior of flexible plywood panels cut by laser

D. CONDOROTEANU, L. GURAU, S. GEORGESCU, Transilvania University of Brasov, Department of Wood Processing and Wood Products Design, Brasov, ROMANIA

15.15: III.OL.4. Facile synthesis of thiourea-polyethyleneimine and its application as flocculant to separate inorganic particles in model suspensions

C.-A. GHIORGHITĂ, G.-L. ALIESEI, L. GHIMICI, “PETRU PONI” Institute of Macromolecular Chemistry, Iasi, ROMANIA

15.30: III.OL.5. Impact of polysulfone functionalization with n,n-dimethylbutylamine on conformational characteristics

O. DUMBRAVĂ, A. FILIMON, L. MARIN, “Petru Poni” Institute of Macromolecular Chemistry, Polycondensation and Thermostable Polymers Department, Iasi, ROMANIA

15.45: III.OL.6. Porous crosslinked microparticles based on glycidyl methacrylate and n-vinylimidazole as precursors for advanced polymeric materials

M.-A. TROFIN, S. RACOVITA, A.-L. VASILIU, S. VASILIU, M. MIHAI, “Petru Poni” Institute of Macromolecular Chemistry, “Mihai Dima” Functional Polymers Department, Iasi, ROMANIA

16.00: III.OL.7. Ionic exchange resins with high affinity in sorption of heavy metal ions

M.-M. ZAHARIA, A.-L. VASILIU, F. BUCATARIU, M. MIHAI, “Petru Poni” Institute of Macromolecular Chemistry, Iasi, ROMANIA

16.15: III.OL.8. Composite materials employed in the removal of emerging pollutants from contaminated waters

L.-M. PETRILA, F. BUCATARIU, M. MIHAI, “Petru Poni” Institute of Macromolecular Chemistry, Functional Polymers Department, Iasi, ROMANIA

Hall C

16.00: MDPI Materials presentation

16.30: Coffee break

17.00: Online presentations 3 (Main Hall A for audience)

Chairpersons: **Petrică VIZUREANU**, “Gheorghe Asachi” Technical University of Iasi, ROMANIA

Tibor BEDŐ, Transilvania University of Brasov, ROMANIA

17.00: VII.OL.1. 3D Printing application in wood furniture components assembling

A. NICOLAU, C. COȘEREANU, Transilvania University of Brasov, Department of Wood Processing and Wood Products Design, Brasov, ROMANIA

M.A. POP, Transilvania University of Brasov, Material Science Department, Brasov, ROMANIA

17.15: VII.OL.2. Reduction of production times for components manufactured using the laser powder bed fusion process

V. MERCURIO, F. CALIGNANO, A. BOVE, M. VICCICA, L. IULIANO, Politecnico di Torino, Department of Management and Production Engineering (DIGEP), Turin, ITALY

17.30: VII.OL.3. Finite element modelling of additively manufactured cellular structures for impact absorption applications

M. VICCICA, F. CALIGNANO, M. GALATI, V. MERCURIO, A. BOVE, L. IULIANO, Integrated Additive Manufacturing Center (IAM) Politecnico di Torino, Department of Management and Production Engineering (DIGEP), Torino, ITALY

17.45: VII.OL.4. Metal additive manufacturing: comparison between different technologies for stainless steels processing

E. SANTECCHIA, M. CABIBBO, V. DI POMPEO, A. SANTONI, S. SPIGARELLI, DIISM, Università Politecnica delle Marche, Ancona, ITALY

C. PAOLETTI, Università degli Studi eCampus, Faculty of Engineering, Novedrate, ITALY

18.00: I.OL.1. Curved crease folding – new challenge to process active façades for smart buildings

C. TEISANU, L. CIUREZU, A. DUTA, C. MIRITOIU, University of Craiova, Faculty of Mechanics, ATIE Dept., Craiova, ROMANIA

O. GINGU, G. SIMA, University of Craiova, Faculty of Mechanics, EMTS Dept., Dr. Tr. Severin, ROMANIA

B. HUREZEANU, M. MAMULEANU, University of Craiova, Faculty of Automation, Computer and Electronics, Craiova, ROMANIA

N. CIOATERA, University of Craiova, Faculty of Science, Chemistry Dept., Craiova, ROMANIA

18.15: I.OL.2. Study of Fe₅₀Mn₃₅Sn₁₅ Heusler compound formation by mechanical alloying

F. POPA, T.F. MARINCA, B.V. NEAMȚU, N.A. SECHEL, I. CHICINAȘ, Materials Science and Engineering Department, Technical University of Cluj-Napoca, Cluj-Napoca, ROMANIA

18.30: I.OL.3. Corrosion behavior of bulk amorphous steels with low carbon content

C. CODREAN, D. BUZDUGAN, C. OPRIS, R. MUNTEAN, S. AMBRUȘ, Politehnica University Timișoara, Timișoara, ROMANIA

18.45: IV.OL.1. Mechanical properties and corrosion resistance of two new titanium alloys for orthopaedics applications

C. JIMENEZ-MARCOS, N.R. FLORIDO-SUÁREZ, P.P. SOCORRO-PERDOMO, J.C. MIRZA-ROSCA, University of Las Palmas de Gran Canaria, Mechanical Engineering Department, Campus Universitario Tafira, Edif. Ingenieria, Gran Canaria, SPAIN

P. VIZUREANU, "Gheorghe Asachi" Technical University of Iasi, Department of Technologies and Equipment for Materials Processing, Iasi, ROMANIA

17.00: Online presentations 4 (Hall B for audience)

Chairpersons: Ionelia VOICULESCU, Politehnica University of Bucharest, ROMANIA

Maria STOICĂNESCU, Transilvania University of Brașov, ROMANIA

17.00: II.OL.1. Technologies for the fabrication of bone regeneration products based on ceramic and composite biomaterials

F. MICULESCU, University Politehnica of Bucharest, Department of Metallic Materials Science, Physical Metallurgy, Bucharest, ROMANIA

17.15: II.OL.2. Ti and Ti6Al4V biomaterials anodization in fluoride and phosphate-based electrolytes

G. STRNAD, I. PETER, "G.E. Palade" University of Medicine, Pharmacy, Sciences and Technology of Targu Mures, Faculty of Engineering and Information Technology, Targu Mures, ROMANIA

L. JAKAB-FARKAS, Sapiientia University of Cluj Napoca, Faculty of Technical and Human Sciences, Targu Mures ROMANIA

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17.30: II.OL.3. Chitosan efficacy as flocculant in removal of some pesticides

C.-E. BRUNCHI, M.M. NAFUREANU, L. GHIMICI, “Petru Poni” Institute of Macromolecular Chemistry, Iasi, ROMANIA

17.45: II.OL.4. Removal of some commercial pesticides formulations by polyelectrolytes based flocculants

L. GHIMICI, M. NICHIFOR, M. CONSTANTIN, M.M. NAFUREANU, “Petru Poni” Institute of Macromolecular Chemistry, Iasi, ROMANIA

18.00: II.OL.5. Macroporous three-dimensional chitosan cryogels for pesticide adsorption and antibacterial applications

M.V. DINU, L. GHIMICI, I.E. RASCHIP, “Petru Poni” Institute of Macromolecular Chemistry, Iasi, ROMANIA

18.15: II.OL.6. Drug delivery systems based on chitosan and pyridoxal-5-phosphate for sustained release in local therapy

A.-M. CRACIUN, L. MARIN, “Petru Poni” Institute of Macromolecular Chemistry, Iasi, ROMANIA

L. MITITELU-TARTAU, “Gr. T. Popa” University of Medicine and Pharmacy, Iasi, ROMANIA

18.30: II.OL.7. Comprehensive investigation on 3d structures manufactured from biomimetic powders for biomedical applications

A.C. MOCANU, M. MICULESCU, R.C. CIOCOIU, T.M. BUTTE, A.I. BIȚA, F. MICULESCU, University Politehnica of Bucharest, Department of Metallic Materials Science, Physical Metallurgy, Bucharest, ROMANIA

G.E. STAN, National Institute of Materials Physics, Laboratory of Multifunctional Materials and Structures, Măgurele-Bucharest, ROMANIA

Ș.I. VOICU, A.M. PANDELE, University Politehnica of Bucharest, Department of Analytical Chemistry and Environmental Engineering, Bucharest, ROMANIA

A.M. PANDELE, University Politehnica of Bucharest, Advanced Polymer Materials Group, Bucharest, ROMANIA

18.45: II.OL.8. Biocompatible hydrogels as matrix for the obtaining of antiviral drug delivery systems

D. AILINCAI, L. MARIN, “Petru Poni” Institute of Macromolecular Chemistry, Iasi, ROMANIA

Hall G

17.00: Poster presentations 1

III.PO.1. Use of Fourier Transform Infrared Spectroscopy for DNA identification on recycled PET composite substrate

G. DODJ, F.-D. COJOCARU, Grigore T. Popa University of Medicine and Pharmacy of Iasi, Advanced Research and Development Center for Experimental Medicine (CEMEX), ROMANIA

D. POPESCU, Grigore T. Popa University of Medicine and Pharmacy of Iasi, Department of Internal Medicine; St. Spiridon County Clinical Emergency Hospital, Internal Medicine Clinic, ROMANIA

M. ARADOAEI, C.R. CIOBANU, Electrical Engineering Faculty, Gheorghe Asachi Technical University of Iasi, ALL GREEN SRL, ROMANIA

C.T. MIHAI, Grigore T. Popa University of Medicine and Pharmacy of Iasi, Advanced Research and Development Center for Experimental Medicine (CEMEX), Iasi, ROMANIA

III.PO.2. Microstructural differences between acid and alkaline activated geopolymers

V.-C. CIUBOTARU, D.-D. BURDUHOS-NERGIȘ, M.-S. BĂLȚATU, D.-P. BURDUHOS-NERGIȘ, A.-V. SANDU, P. VIZUREANU, Faculty of Materials Science and Engineering, Gheorghe Asachi Technical University of Iasi, ROMANIA

III.PO.3. Bio-based polymeric composites incorporating granular activated algae biomass

M. BUMBAC, Valahia University of Targoviste, Faculty of Science and Arts; Valahia University of Targoviste, Institute of Multidisciplinary Research for Science and Technology, ROMANIA

C.M. NICOLESCU, R.L. OLTEANU, Valahia University of Targoviste, Institute of Multidisciplinary Research for Science and Technology, ROMANIA

S.C. GHERGHINOIU, Valahia University of Targoviste, Faculty of Science and Arts, ROMANIA

C. BUMBAC, O. TIRON, E.E. MANEA, National Research and Development Institute for Industrial Ecology-ECOIND, ROMANIA

C. RADULESCU, Valahia University of Targoviste, Faculty of Science and Arts; Valahia University of Targoviste, Institute of Multidisciplinary Research for Science and Technology, ROMANIA

PROGRAM

L.M. GORGHIU, Valahia University of Targoviste, Faculty of Science and Arts, ROMANIA

S.G. STANESCU, Valahia University of Targoviste, Institute of Multidisciplinary Research for Science and Technology, ROMANIA

B.C. SERBAN, O. BUIU, IMT Bucharest, National Institute for Research and Development in Microtechnologies, ROMANIA

III.PO.4. Analysis of water jet cutting of metal-ceramic elements made through atmospheric plasma spraying technique

M. LUȚCANU, Gh. Asachi Technical University of Iasi, Faculty of Machine Manufacturing and Industrial Management, Department of Physics; Gh. Asachi Technical University of Iasi, Materials Science and Engineering Department, ROMANIA

C. MUNTEANU, Gh. Asachi Technical University of Iasi, Mechanical Engineering Department, ROMANIA

G. KICSI, A.-M. ROMAN, Gh. Asachi Technical University of Iasi, Materials Science and Engineering Department, ROMANIA

C. CROITORU, Gh. Asachi Technical University of Iasi, Faculty of Machine Manufacturing and Industrial Management, Department of Physics, ROMANIA

B.A. PRISECARIU, Grigore T. Popa University of Medicine and Pharmacy, ROMANIA

M.M. CAZACU, Gh. Asachi Technical University of Iasi, Faculty of Machine Manufacturing and Industrial Management, Department of Physics, ROMANIA

I. ȘTIRBU, D.L. CHICET, N. CIMPOEȘU, Gh. Asachi Technical University of Iasi, Materials Science and Engineering Department, ROMANIA

III.PO.5. Composite Fe-Ni/ZnFe₂O₄ powders obtained by milling and spark plasma sintered composite compacts produced there from

L. COTOJMAN, T.F. MARINCA, F. POPA, B.V. NEAMȚU, C.V. PRICĂ, I. CHICINAȘ, Technical University of Cluj-Napoca, Materials Science and Engineering Department, ROMANIA

III.PO.6. Pseudo core-shell Permalloy (Supermalloy)@ZnFe₂O₄ powders and spark plasma sintered composite compacts produced there from

L. COTOJMAN, T.F. MARINCA, F. POPA, B.V. NEAMȚU, C.V. PRICĂ, I. CHICINAȘ, Technical University of Cluj-Napoca, Materials Science and Engineering Department, ROMANIA

III.PO.7. Utilisation of composites in the production of building materials

S. MATEI, S. BUTUC, I. GHIUȚĂ, M. STOICĂNESCU, A. CRIȘAN, Transilvania University of Brasov, Materials Science Department, ROMANIA

III.PO.8. The influence of plasticizers on PLA-based packaging characteristics

C. CĂLIN, A. BONDAREV, D. BOMBOȘ, S.C. Medacril S.R.L.; Petroleum-Gas University of Ploiești, Faculty of Petroleum Refining and Petrochemistry, ROMANIA

M. FILIP, S.C. Medacril S.R.L.; "Raluca Ripan" Institute For Research In Chemistry, ROMANIA

O. BLĂJAN, S.C. Medacril S.R.L., ROMANIA

III.PO.9. Invar/WC composite compacts obtained by spark plasma sintering from mechanically alloyed powders

C.-V. PRICĂ, T.F. MARINCA, B.V. NEAMȚU, A.N. SECHEL, F. POPA, I. CHICINAȘ, E. MARTON, Technical University of Cluj-Napoca, Material Science and Engineering Department, ROMANIA

IV.PO.1. Magnetic and electric properties of printable perovskite type structures of (La_{1-x}Pr_x)₂/3Ba₁ / 3MnO₃ manganites

A. BEZERGHEANU, C.B. CIZMAS, M. VOLMER, M. OPROIU, C. MUȘUROI, Transilvania University of Brasov, Department Electrical Engineering & Applied Physics, Brașov, ROMANIA

IV.PO.2. Deposition of titanium dioxide coatings on rubber and cork substrates for UV protection

B. TISS, D. MARTINEZ-MARTÍNEZ, L. CUNHA, Physics Center of Minho and Porto Universities-CF-UM-UP, Campus de Gualtar, Braga, PORTUGAL

C. MANSILLA, CTECHnano Coatings Technologies S.L., San Sebastián, SPAIN

IV.PO.3. Corrosion behavior of Ti and Ni layers deposited by ESD method

M.-A. MAZILU, M.-C. PERJU, C. NEJNERU, D.-D. BURDUHOS-NERGIŞ, D.-C. ACHIŢEI, M.-S. BĂLŢATU, A.-V. SANDU, P. VIZUREANU, Faculty of Materials Science and Engineering, Gheorghe Asachi Technical University of Iaşi, ROMANIA

IV.PO.4. Combating microbial contamination with silver-based transparent coatings obtained by magnetron sputtering on polymer foils

L.R. CONSTANTIN, A.C. PARAU, A.E. KISS, I. PANA, M. DINU, A. VLADESCU, C. VITELARU, National Institute of Research and Development for Optoelectronics - INOE 2000, Magurele-Ilfov, ROMANIA
C. ADOCHITE, S. COSTINAS, M. IDOMIR, M. BADEA, Transilvania University of Brasov, Faculty of Medicine, Brasov, ROMANIA
L.E. TONOFREI, ATS Novus SRL, Bucuresti, ROMANIA

IV.PO.5. The effect of copper addition on the growth of transparent conductive silver coating

C. VITELARU, A. PARAU, M. DINU, I. PANA, L. R. CONSTANTIN, National Institute of Research and Development for Optoelectronics - INOE 2000, Magurele-Ilfov, ROMANIA
A. SOBETKII, V. CAPATINA, SC MGM STAR CONSTRUCT SRL, Bucharest, ROMANIA
I. IORDACHE, National Institute for Research and Development in Electrical Engineering ICPE-CA, Bucharest, ROMANIA

IV.PO.6. Sputtered hydroxyapatite coatings prepared at different temperatures as biodegradable coatings

G.A. JURAVLEA, A. VLADESCU, L.R. CONSTANTIN, I. PANA, A.C. PARAU, National Institute of Research and Development for Optoelectronics - INOE 2000, Magurele, ROMANIA

V.PO.1. Antimicrobial nanofibers based on poly(lactic acid) and silver nanoparticles encapsulated into poly(vinyl alcohol)

M. RÂPĂ, A.C. BERBECARU, E. MATEI, C. PREDESCU, A.A. ŢURCANU, A.M. PREDESCU, G. COMAN, Faculty of Material Sciences and Engineering, University Politehnica of Bucharest, ROMANIA
E.E. POPA, University of Agronomic Sciences and Veterinary Medicine Bucharest, Faculty of Biotechnology, Bucharest, ROMANIA

V.PO.2. Synthesis of nanoporous copper by dealloying CuZrAl AND CuZrAlAg amorphous ribbons in acidic solution

M. NICOLAESCU, M. VAJDA, Politehnica University of Timisoara, Department of Materials and Fabrication Engineering; National Institute for Research and Development in Electrochemistry and Condensed Matter, Timisoara, ROMANIA
P. HIDIDIS, V.A. SERBAN, C. CODREAN, I. HULKA, Politehnica University of Timisoara, Department of Materials and Fabrication Engineering, ROMANIA
C. ORHA, C. BANDAS, C. LAZAU, National Institute for Research and Development in Electrochemistry and Condensed Matter, Timisoara, ROMANIA

V.PO.3. Flower-like magnetite nanoparticles as efficient catalyst of dye degradation using sodium percarbonate in heterogeneous photo-fenton reaction

A. RADOŃ, Silesian University of Technology, Faculty of Mechanical Engineering, Gliwice; Łukasiewicz Research Network - Institute of Non-Ferrous Metals, Gliwice, POLAND
D. ŁUKOWIEC, R. BABILAS, Silesian University of Technology, Faculty of Mechanical Engineering, Gliwice, POLAND
K. BARBUSIŃSKI³, S. ŁOŃSKI, Silesian University of Technology, Department of Water and Wastewater Engineering, POLAND

V.PO.4. Heteropolyacid based magnetic nanocatalyst for environmentally friendly synthesis of glycerol acetal

A.R. TRIFOI, E. MATEI, University Politehnica of Bucharest, Faculty of Material Science and Engineering, Bucharest, ROMANIA
R. DOUKEH, Petroleum-Gas University of Ploieşti, Faculty of Petroleum Refining and Petrochemistry, ROMANIA

V.PO.5. Ti oxidized thin films studied by modulated infrared radiometry

C. LOPES, M.S. RODRIGUEZ, F. VAZ, F. MACEDO, Centro de Física das Universidades do Minho e Porto, Universidade do Minho, Campus de Gualtar - Braga, PORTUGAL
I.L. BORŞAN, C. GABOR, D. MUNTEANU, Transilvania University of Brasov, Material Science Department, ROMANIA

V.PO.6. Flexible nanostructured Ti(N)Cu thin films for high-sensing biomedical applications

H. VELOSO, N. AZEVEDO, C. LOPES, F. VAZ, Centro de Física das Universidades do Minho e Porto, Universidade do Minho, Campus de Gualtar - Braga, PORTUGAL
M.A. POP, I. BORSAN, C. GABOR, D. MUNTEANU, Transilvania University of Brasov, Material Science Department, ROMANIA

V.PO.7. Properties changes in Ti-based intermetallic thin films after thermal treatment using concentrated solar radiation

C. GABOR, Transilvania University of Brasov, Material Science Department, ROMANIA
I. TARI, Middle East Technical University, Mechanical Engineering Department, Ankara, TURKEY

Hall G

9.30 – 19.00: Companies exhibitions

ARO PALACE HOTEL - night bar

20.00: Gala dinner

Friday, 11.03.2022

Hall C

10.00: Oral presentations 2

Chairpersons: Noam ELIAZ, Tel-Aviv University, ISRAEL
Ioan MILOȘAN, Transilvania University of Brasov, ROMANIA

10.00: II.O.1. In vitro behavior of Ti6Al4V bone scaffolds produced with reused powders by EB-PBF

M.L. GATTO, P. MENGUCCI, Department SIMAU, Università Politecnica delle Marche, Ancona, ITALY
R. GROppo, 3D4MEC S.r.l, Sasso Marconi (BO), ITALY
N. BLOISE, L. VISAI, Department of Molecular Medicine, Centre for Health Technologies (CHT), INSTM UdR of Pavia, University of Pavia, Pavia, ITALY
N. BLOISE, L. VISAI, Department of Occupational Medicine, Toxicology and Environmental Risks, ICS Maugeri, IRCCS, Pavia, ITALY
L. FASSINA, Department of Electrical, Computer and Biomedical Engineering, Centre for Health Technologies (CHT), University of Pavia, Pavia, ITALY
M. GALATI, L. IULIANO, Department of Management and Production Engineering (DIGEP), Politecnico di Torino, Torino, ITALY

10.15: II.O.2. Comparative study for new biodegradable alloys based on Fe and Zn

A. ROMAN, C. PANAGHIE, R. CIMPOEȘU, I. IONIȚĂ, P. PARASCHIV, N. CIMPOEȘU, Gh. Asachi Technical University of Iasi, Faculty of Materials Science and Engineering, Iasi, ROMANIA

10.30: II.O.3. Chitosan-protein bioconjugate hydrogels as biocompatible materials

E. STOLERU, D. PAMFIL, R. DUMITRIU, G. AILIESEI, M. BREBU, “Petru Poni” Institute of Macromolecular Chemistry, Iasi, ROMANIA

10.45: II.O.4. Dual functional chitosan-based organogels

M. BREBU, E. STOLERU, R. DUMITRIU, G. AILIESEI, “Petru Poni” Institute of Macromolecular Chemistry, Iasi, ROMANIA

11.00: II.O.5. Microfluidic bioreactors used for the controlled growth of biofilms

A. CSAPAI, V. PAȘCALĂU, F. POPA, C.O. POPA, Technical University of Cluj-Napoca, Materials Science and Engineering Department, Cluj-Napoca, ROMANIA
D.A. ȚOC, Iuliu Hațieganu University of Medicine and Pharmacy, Cluj-Napoca, ROMANIA
N.I. TOȘA, National C-D Institute for Isotopic and Molecular Technologies, Department of Molecular and Biomolecular Physics, Cluj-Napoca, ROMANIA

11.15: II.O.6. Extended biodegradation and biocompatibility evaluation of Mg-0.5Ca-xGd alloys in Sprague Dawley rats

O.D. POPESCU, C. MUNTEANU, R.O. NĂSTASE, B. ISTRATE, Ş. LUPESCU, Gheorghe Asachi University of Iasi, Mechanical Engineering Department, ROMANIA

E.V. ŞINDILAR, S.A. PAŞCA, "Ion Ionescu de la Brad" Iasi University of Life Sciences, Faculty of Veterinary Medicine, Iasi, ROMANIA

Hall B

10.00: Oral presentations 3

Chairpersons: Luís António Carvalho Gachineiro da CUNHA, University of Minho, PORTUGAL

Tibor BEDŐ, Transilvania University of Brasov, ROMANIA

10.00: I.O.1. Ti and Zr effect on microstructure and mechanical properties of CoCrFeNiMo high entropy alloy

I. VOICULESCU, Politehnica University of Bucharest, Industrial Engineering and Robotics Faculty, Bucharest, ROMANIA

V. GEANTĂ, R. ŞTEFĂNOIU, C. COTRUȚ, Politehnica University of Bucharest, Science and Engineering of Materials Faculty, Bucharest, ROMANIA

J.C. MÎRZA-ROŞCA, Las Palmas de Gran Canaria University, Mechanical Engineering Dept., Las Palmas de Gran Canaria, SPAIN

10.15: I.O.2. Development of an alternating heat engine actuated by shape memory alloys

A.P. TEODORIU, B. PRICOP, L.GH. BUJOREANU, Faculty of Materials Science and Engineering, "Gheorghe Asachi" Technical University of Iasi, ROMANIA

10.30: I.O.3. Electrical metal contacts for gas sensors deposited by thermal decomposition of organo metallic compounds

M. BENTA, Transilvania University of Brasov, ROMANIA

A. NEAGU, S. GHEORGHE, M. GHEORGHE, NANOM MEMS SRL, Rasnov, ROMANIA

C. SAMOILA, Transilvania University of Brasov, Technical Sciences Academy of ROMANIA

D. URSUTIU, Transilvania University of Brasov, Academy of Romanian Scientists, ROMANIA

10.45: VII.O.1. Influence of printing conditions on the mechanical properties of copper-poly(lactic acid) composites obtained by 3D printing fused deposition modelling

S. AMBRUS, R. MUNTEAN, C. CODREAN, D. UȚU, University Politehnica Timișoara, Materials and Manufacturing Engineering Department, Timișoara, ROMANIA

11.00: VII.O.2. A synthetic review on tension-compression and bending properties of polyamide 12 (PA12) additively manufactured by selective laser sintering

M.N. BABA, C. ITU, Transilvania University of Brașov, Department of Mechanical Engineering, Brașov, ROMANIA

I. TISMANAR, Transilvania University of Brașov, Department of Chemistry, Brașov, ROMANIA

D.GHE. VOINEA, Transilvania University of Brașov, Department of Automotive and Transport Engineering, Brașov, ROMANIA

C. HUSAR, Siemens Industry Software SRL, Brașov, ROMANIA

M.E. LUCACI, École Centrale de Marseille, Marseille, FRANCE

11.15: V.O.1. Polyaniline based catalysts for oxidative removal of ibuprofen from water

S.M. AVRAMESCU, University of Bucharest, Faculty of Chemistry, Department of Organic Chemistry, Biochemistry and Catalysis; University of Bucharest, PROTMED Research Centre, ROMANIA

A.V. NICA, E.A. OLARU, University of Bucharest, PROTMED Research Centre, Bucharest, ROMANIA

M. VERZIU, University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Bioresources and Polymer Science, ROMANIA

A. DUMITRU, University of Bucharest, Faculty of Physics, ROMANIA

10.00: Online presentations 5 (Main Hall A for audience)

Chairpersons: **Rodica Mariana ION**, "Valahia" University of Târgoviște, Council of academic doctoral studies, ICECHIM, Dept. Evaluation and Conservation of Cultural Heritage, Bucharest, ROMANIA
Liana Sanda BALTEȘ, Transilvania University of Brașov, ROMANIA

10.00: IV.OL.2. Morphological and tribological evaluation of Ni-CRC cold spray coatings deposited on AISI 1018 steel

C. MUNTEANU, R.G. CIUBOTARIU, M. BENCHEA, V. PALEU, B. ISTRATE, Technical University "Gheorghe Asachi", Material Science Department, Iasi, ROMANIA

S. MUFTU, Northeastern University, Department of Mechanical Engineering Boston, USA

10.15: IV.OL.3. 3-D Dimensionally stable anodes for advanced electrooxidation of cystostics from water

A. BACIU, M.I. POPESCU, A. POP, F. MANEA, Department of Applied Chemistry and Engineering of Inorganic Compounds and Environment, Politehnica University of Timisoara, ROMANIA

M.I. POPESCU, C. ORHA, C. BANDAS, National Institute for Research and Development in Electrochemistry and Condensed Matter, Condensed Matter Department, 1 P, Timisoara, ROMANIA

10.30: IV.OL.4. Bioactive paper packages for improved food safety

M. BREBU, A. IRIMIA, E. STOLERU, "Petru Poni" Institute of Macromolecular Chemistry, Iasi, ROMANIA

10.45: IV.OL.5. Influence of the cutting force upon machining process efficiency

I. M. PETRE, C. GĂVRUȘ, Transilvania University of Brașov, Department of Engineering and Industrial Management, ROMANIA

11.00: IV.OL.6. Analysis of correlation between diffusion depth, surface roughness and surface hardness in case of ferritic nitrocarburizing treatment for automotive application

B.P. SZASZ, Valahia University of Târgoviște, Department of Material Science, Romania, Turbocam International, Research and Development Department

I. PETER, University of Medicine, Pharmacy, Science and Technology „George Emil Palade” of Târgu Mureș, Faculty of Engineering and Information Technology, Department of Industrial Engineering and Management, ROMANIA

11.15: IV.OL.7. The effect of nitriding temperature on the nanocrystalline structure

R.I. TUDORACHE (NISTOR), Transilvania University of Brașov, ROMANIA

C. SAMOILA, Romanian Academy of Technical Sciences, ROMANIA

D. URSUTIU, Academy of Romanian Scientists, ROMANIA

11.30: Coffee break

Hall C

12.00: Oral presentations 4

Chairpersons: **Ionel CHICINAȘ**, Technical University of Cluj-Napoca, ROMANIA
Cătălin CROITORU, Transilvania University of Brasov, ROMANIA

12.00: III.O.1. Nuclear magnetic resonance relaxometry as an instrument to develop new cement-based composites

I. ARDELEAN, M. RUSU, Technical University of Cluj-Napoca, Department of Physics and Chemistry, Cluj-Napoca, ROMANIA

C. DUDESCU, C. VILAU, Technical University of Cluj-Napoca, Department of Mechanical Engineering, Cluj-Napoca, ROMANIA

12.15: III.O.2. Valorization of forestry residues by thermal methods

E. BUTNARU, E. STOLERU, M. BREBU, "Petru Poni" Institute of Macromolecular Chemistry, Iasi, ROMANIA

12.30: III.O.3. Capillary tube gas hydrogen storage. Calculation and optimization

A. RĂȚOI, "Gheorghe Asachi" Technical University of Iasi, Department of Mechanical Engineering, Mechatronics and Robotics, Iasi, ROMANIA

PROGRAM

C. *MUNTEANU*, "Gheorghe Asachi" Technical University of Iasi, Department of Mechanical Engineering, Mechatronics and Robotics, Iasi; Tech Sci Acad, Bucharest, ROMANIA

B. *ISTRATE*, "Gheorghe Asachi" Technical University of Iasi, Department of Mechanical Engineering, Mechatronics and Robotics, Iasi, ROMANIA

D. *ELIEZER*, Ben Gurion University of the Negev, Department of Material Engineering, Beer Sheva, ISRAEL

12.45: III.O.4. TiO₂ - g-C₃N₄ composite thin films for photocatalytic advanced wastewater treatment

S. GHEORGHITA, *C. BOGATU*, *A. DUTA*, Transilvania University of Brasov, Product Design, Mechatronics and Environment, Brasov, ROMANIA

13.00: III.O.5. Cold sintered fibres-based soft magnetic composites

B.V. NEAMȚU, *F. POPA*, *T.F. MARINCA*, *I. VIDA-SIMITI*, *I. PUPĂZĂ*, *I. CHICINAȘ*, Technical University of Cluj-Napoca, Materials Science and Engineering Department, Cluj-Napoca, ROMANIA

13.15: III.O.6. The potential of waste fibers in obtaining new composite materials

R. IȘTOAN, *D.R. TĂMAȘ-GAVREA*, *D.L. MANEA*, Technical University of Cluj-Napoca, Department of Civil Engineering and Management, Faculty of Construction, Cluj-Napoca, ROMANIA

13.30: III.O.7. Comparative study of two adsorbent materials for removal of acetaminophen from wastewater

C.I. COVALIU-MIERLĂ, *F. PIRVU*, *G. PARASCHIV*, Politehnica University of Bucharest, ROMANIA

F. PIRVU, National Research and Development Institute for Industrial Ecology, ECOIND, Bucharest, ROMANIA

I.R. SUICA-BUNGHEZ, National R&D Institute for Chemistry and Petrochemistry, ICECHIM, Bucharest, ROMANIA

13.45: III.O.8. The photocatalytic degradation of benzalkonium chloride on TiO₂ nanomaterial

C.I. COVALIU-MIERLĂ, *I. PAUN*, *L. COVALIU*, Politehnica University of Bucharest, ROMANIA

I. PAUN, National Research and Development Institute for Industrial Ecology, ECOIND, Bucharest, ROMANIA

J.V. ȚIU, University of Agronomic Sciences and Veterinary Medicine of Bucharest, ROMANIA

12.00: Online presentations 6 (Hall B for audience)

Chairpersons: *Corneliu MUNTEANU*, "Gheorghe Asachi" Technical University of Iasi, ROMANIA

Ioana POPESCU, Transilvania University of Brașov, ROMANIA

12.00: II.OL.9. New delivery systems based on chitosan hydrogels for agricultural applications

M.M. IFTIME, *L. MARIN*, "Petru Poni" Institute of Macromolecular Chemistry, Iasi, ROMANIA

12.15: II.OL.10. Bandages based on chitosan nanofibers for burn healing applications

S. CIBOTARU, *D. AILINCAI*, *A. ANISIEI*, *L. MARIN*, "Petru Poni" Institute of Macromolecular Chemistry, Iasi, ROMANIA

12.30: II.OL.11. Design and properties of newly developed imino-quaternized chitosan biomaterials

B.-I. ANDREICA, *I. ROSCA*, *L. MARIN*, "Petru Poni" Institute of Macromolecular Chemistry, Iasi, ROMANIA

12.45: II.OL.12. Biodegradable chitosan/quaternized chitosan nanofibers as wound dressings

A. ANISIEI, *B.-I. ANDREICA*, *L. MARIN*, "Petru Poni" Institute of Macromolecular Chemistry, Iasi, ROMANIA

13.00: II.OL.13. Curcumin-loaded hydrogel films based on bovine serum albumin and oxidized gellan with biomedical applications

C.E. IURCIUC (TINCU), *L. OCHIUZ*, "Grigore T. Popa" University of Medicine and Pharmacy, Faculty of Pharmacy, Department of Pharmaceutical Technology, Iași, ROMANIA

C.E. IURCIUC (TINCU), *M. POPA*, "Gheorghe Asachi" Technical University, Faculty of Chemical Engineering and Protection of the Environment, Department of Natural and Synthetic Polymers, Iasi, ROMANIA

C. JÉRÔME, University of Liège, Complex and Entangled Systems from Atoms to Materials, Center for Education and Research on Macromolecules, Liège, BELGIUM

M. POPA, Academy of Romanian Scientists, Bucuresti, ROMANIA

13.15: II.OL.14. Corrosion behaviour of new titanium alloys for medical applications

H. GUERRA-YÁNEZ, N.R. FLORIDO-SUÁREZ, J.C. MIRZA-ROSCA, Mechanical Engineering Department, University of Las Palmas de Gran Canaria, Las Palmas de Gran Canaria, SPAIN

I. VOICULESCU, Faculty of Industrial Engineering and Robotics, Politehnica University of Bucharest, Bucharest, ROMANIA

13.30: II.OL.15. Finite element comparative analysis of unilateral removable partial denture with and without distal implant

O.C. ANDREI, L.A. TĂNĂSESCU, I.D. TĂRLUNGEANU, University of Medicine and Pharmacy “Carol Davila” Bucharest, Faculty of Dentistry, Department of Removable Prosthodontics, Bucharest, ROMANIA

M.N. DINA, University of Medicine and Pharmacy “Carol Davila” Bucharest, Faculty of Midwifery and Nursing, Department of Dental Techniques, Bucharest, ROMANIA

M.H. ȚIEREAN, Transilvania University of Brasov, Materials Engineering and Welding Department, Brasov, ROMANIA

12.00: Online presentations 7 (Main Hall A for audience)

Chairpersons: Nestor Ruben FLORIDO-SUAREZ, Universidad de Las Palmas de Gran Canaria, Spain
Elena Manuela STANCIU, Transilvania University of Brasov, ROMANIA

12.00: IV.OL.8. Preparation by solar physical vapor deposition (SPVD) of thermoelectric ZnO(+Al₂O₃) powders

I. APOSTOL, S.C. IPEE Amiral Trading Impex S.A., Curtea de Arges, ROMANIA

V. SARAVANAN, Central University of TamilNadu, School of Basic and Applied Sciences, Physics Dept., Thiruvurur, INDIA

E. BECHE, E. GUILLOT, F. LECAT, C. MONTY, PROMES-CNRS Laboratory, Odeillo, Font Romeu, FRANCE

12.15: IV.OL.9. High performance of metallic thin films for resistance temperature devices

A. FERREIRA, A.L.R. SOUZA, M.A. CORREA, H. CASTRO, F. VAZ, Centro de Física, Universidade do Minho, Braga, PORTUGAL

A.L.R. SOUZA, M.A. CORREA, Departamento de Física, Universidade Federal do Rio Grande do Norte, RN, BRASIL

12.30: III.OL.9. Immobilization of cadmium ions from wastewater onto polyelectrolyte composite sorbents

I. MOROSANU, C. PADURARU, “Gheorghe Asachi” Technical University of Iasi, “Cristofor Simionescu” Faculty of Chemical Engineering and Environmental Protection, Department of Environmental Engineering and Management, Iasi, ROMANIA

F. BUCATARIU, “Gheorghe Asachi” Technical University of Iasi, “Cristofor Simionescu” Faculty of Chemical Engineering and Environmental Protection, Department of Environmental Engineering and Management; “Petru Poni” Institute of Macromolecular Chemistry, Iasi, ROMANIA

D. FIGHIR, “Gheorghe Asachi” Technical University of Iasi, “Cristofor Simionescu” Faculty of Chemical Engineering and Environmental Protection, Department of Environmental Engineering and Management, Iasi, ROMANIA

M. MIHAI, “Gheorghe Asachi” Technical University of Iasi, “Cristofor Simionescu” Faculty of Chemical Engineering and Environmental Protection, Department of Environmental Engineering and Management; “Petru Poni” Institute of Macromolecular Chemistry, Iasi, ROMANIA

C. TEODOSIU, “Gheorghe Asachi” Technical University of Iasi, “Cristofor Simionescu” Faculty of Chemical Engineering and Environmental Protection, Department of Environmental Engineering and Management, Iasi, ROMANIA

12.45: III.OL.10. Investigating phenomena in porous composite materials: from the setting of cement pastes to the pyrolysis of CBiFe xerogels

M.M. RUSU, Faculty of Physics, “Babeş-Bolyai” University, Nanostructured Materials and Bio-Nano-Interfaces Center, Interdisciplinary Research Institute on Bio-Nano-Sciences, “Babeş-Bolyai” University, Technical University of Cluj-Napoca, Department of Physics and Chemistry, Cluj-Napoca, ROMANIA

I. FLOREA, Ecole Polytechnique, Laboratory of Physics of Interfaces and Thin Films (LPICM), Palaiseau, FRANCE

A. VULPOI, Nanostructured Materials and Bio-Nano-Interfaces Center, Interdisciplinary Research Institute on Bio-Nano-Sciences, “Babeş-Bolyai” University, Cluj-Napoca, ROMANIA

L. BAIA, Faculty of Physics, “Babeş-Bolyai” University, Nanostructured Materials and Bio-Nano-Interfaces Center, Interdisciplinary Research Institute on Bio-Nano-Sciences, “Babeş-Bolyai” University, Cluj-Napoca, ROMANIA

I. ARDELEAN, Technical University of Cluj-Napoca, Department of Physics and Chemistry, Cluj-Napoca, ROMANIA

13:00: VI.OL.1. Corrosion resistance of NiCr(Ti) coatings for metallic bipolar plates

D.N. AVRAM, C.M. DAVIDESCU, M.L. DAN, D.A. DUCA, Politehnica University Timisoara, Faculty of Industrial Chemistry and Environmental Engineering, Timisoara, ROMANIA

J.C. MIRZA-ROSCA, I. HULKA, Las Palmas de Gran Canaria University, Dept. of Mechanical Eng., Las Palmas, SPAIN

E.M. STANCIU, A. PASCU, Transilvania University of Brasov, Materials Engineering and Welding Department, Braşov, ROMANIA

13:15 II.OL.16. Influence of thermal treatment on the mechanical properties and corrosion resistance of Ti-6Al-7Nb dental alloy

I. HULKA, N.R. FLORIDO-SUAREZ, J.C. MIRZA-ROSCA, Las Palmas de Gran Canaria University, Department of Mechanical Engineering, Tafira, SPAIN

A. SACELEANU, "Lucian Blaga" University of Sibiu, Medicine Faculty, Sibiu, ROMANIA

13:30 VIII.OL.1. ASM International data ecosystem

A. LUPULESCU, R. FRYAN, ASM International, Materials park, Ohio, USA

Hall G

12:00: Poster presentations 2

I.PO.1. The thermo-mechanical behavior of NiTi-x shape memory alloys

V.D. APOSTOL, B. PRICOP, M. POPA, L.GH. BUJOREANU, N.M. LOHAN, Faculty of Materials Science and Engineering, "Gheorghe Asachi" Technical University of Iasi, ROMANIA

I.PO.2. 316L Metallic foams obtained via powder metallurgy

G. BATIN, A.M. APACZAI, N.A. SECHEL, R. GHIORGHINA, G. THALMAYER, Technical University of Cluj-Napoca, Material Science and Engineering Department, Cluj-Napoca, ROMANIA

R. GHIORGHINA, S.C. COMELF S.A., Bistriţa, ROMANIA

I.PO.3. Structural and mechanical characterization of CuAlBe alloy

R.G. CHELARIU, R. CIMPOEŞU, O. RUSU, V. MANOLE, D.P. BURDUHOS-NEGRIS, N. CIMPOEŞU, C. BEJINARIU, Faculty of Materials Science and Engineering, "Gh. Asachi" Technical University from Iasi, IASI, ROMANIA

M. BENCHEA, Faculty of Mechanical Engineering, Gh. Asachi" Technical University from Iasi, ROMANIA

I.PO.4. A history of the iron and steel in Central Europe between the roman empire and middle age

D. CONSTANTINESCU, University Politehnica of Bucharest, National Society for Engineering and Environment Protection, ROMANIA

A.B. CARLAN SERBAN, National Society for Engineering and Environment Protection, National Research and Development Institute for Nonferrous and Rare Metals, Bucharest, ROMANIA

I.PO.5. Laboratory studies of a dual-phase steel with 0.53% Mn structures

C. DULUCHEANU, T.L. SEVERIN, D.A. CERLINCA, L. IRIMESCU, I. MUSCA, "Stefan cel Mare" University of Suceava, Faculty of Mechanical Engineering, Automotive and Robotics & Research Center MANSiD, Suceava, ROMANIA

I.PO.6. Fractal analyses of CLSM images for homogeneity characterization of master alloy

A.A. MATEI, R. HRISTU, University Politehnica of Bucharest, Center for Microscopy-Microanalysis and Information Processing, Bucharest, ROMANIA

I. PENCEA, University Politehnica of Bucharest, Materials Science and Engineering Faculty, Bucharest, ROMANIA

A.A. MATEI, E. HERGHELEGIU, University "Vasile Alecsandri" of Bacau, Department of Industrial System Engineering and Management, Faculty of Engineering, Bacau, ROMANIA

I.PO.7. Investigation of some thermomechanical processing effects on the structure and properties of a TiNiCu shape memory alloy

M. POPA, V.D. APOSTOL, N.M. LOHAN, N. CIMPOESU, L.GH. BUJOREANU, Faculty of Materials Science and Engineering, "Gheorghe Asachi" Technical University of Iasi, ROMANIA

M. CAZACU, Department of Inorganic Chemistry, "Petru Poni" Institute of Macromolecular Chemistry, Iasi, ROMANIA

F. BORZA, National Institute of Research and Development for Technical Physics, Iasi, ROMANIA

I.PO.8. Studies on the corrosion resistance of high chromium alloy steels

M. STOICANESCU, M.V. COMICI, Transilvania University of Brasov, Material Science Department, Brasov, ROMANIA

I. GIACOMELLI, Transilvania University of Brasov, Material Science Department, Technical Sciences Academy of Romania, ROMANIA

I.PO.9. Micron porous copper powder through vacuum dealloying

G. THALMAIER, N.A. SECHEL, M. NASUI, N. COBÎRZAN, Technical University of Cluj-Napoca, ROMANIA

I. VIDA-SIMITI, Technical University of Cluj-Napoca, Technical Science Academy of Romania, ROMANIA

II.PO.1. Processing of protein byproducts for new biomaterials design

C. GAIDAU, M. STANCA, D. BERECHET, R&D National Institute for Textiles & Leather-Division Leather and Footwear Research Institute, Leather Research Department, Bucharest, ROMANIA

M. RAPA, University POLITEHNICA of Bucharest, Faculty of Material Science and Engineering, Bucharest, ROMANIA

A. MOSUTIU, SPD STAR SRL, Cluj, ROMANIA

L. OLARIU, B.G. DUMITRIU, SC Biotehnos SA, Otopeni, ROMANIA

II.PO.2. Renewable tanning materials for biodegradable leathers

C. GAIDAU, M. NICULESCU, M. STANCA, D. BERECHET, D. SIMION, T. FOIASI, R&D National Institute for Textiles&Leather - Division Leather and Footwear Research Institute, Leather Research Department, Bucharest, ROMANIA

T. STOICA, SC Taro Comimpex SRL, Jilava, Ilfov, ROMANIA

II.PO.3. Comparative study of EDC/NHS- and riboflavin-induced crosslinking of chitosan/gelatin hydrogels

D. PAMFIL, R. DUMITRIU, E. STOLERU, "Petru Poni" Institute of Macromolecular Chemistry, Iasi, ROMANIA

II.PO.4. Green biocides for mitigation of microbiologically influenced corrosion of oilfield equipment

M. ANDREI, C. OPRESCU, D. GOICEA, Materials & Corrosion Technologies, Laboratory Department, OMV Petrom S.A., Campina, ROMANIA

C. BOBIRICĂ, O.D. ORBULEȚ, L. BOBIRICĂ, C. MODROGAN, University Politehnica of Bucharest, Department of Analytical Chemistry and Environmental Engineering, Bucharest, ROMANIA

II.PO.5. Corrosion behavior of some Ni-Cr and Co-Cr dental alloys

P.P. SOCORRO-PERDOMO, N.R. FLORIDO-SUAREZ, J.C. MIRZA-ROSCA, University of Las Palmas de Gran Canaria, Mechanical Engineering Dept., Las Palmas de Gran Canaria, SPAIN

A. SACELEANU, "Lucian Blaga" University of Sibiu, Medicine Faculty, Sibiu, ROMANIA

II.PO.6. Thin film metallic glasses based ZrCu used in medicine

G.A. JURAVLEA, A. VLADESCU, L.R. CONSTANTIN, National Institute of Research and Development for Optoelectronics - INOE 2000, Magurele, ROMANIA

II.PO.7. Preliminary tests for new promising titanium alloys as potential biomaterials

I. BĂLȚATU, D.C. ACHIȚEI, A.V. SANDU, M.C. PERJU, D.D. BURDUHOS-NERGIȘ, P. VIZUREANU "Gheorghe Asachi" Technical University of Iasi, Faculty of Materials Science and Engineering, Iasi, ROMANIA

A.V. SANDU, M.C. PERJU, P. VIZUREANU, Centre of Excellence Geopolymer & Green Technology School of Materials Engineering, University Malaysia Perlis, Kompleks Pengajian Jejawi, Arau, PERLIS

VI.PO.1. Electrospun polymers modified with phosphorus for innovative fire-resistant materials

T. VLAD-BUBULAC, A. ANISIE, A.L. VASILIU, D. SERBEZEANU, A.M. IPATE, M. BREBU, "Petru Poni" Institute of Macromolecular Chemistry, Iasi, ROMANIA

VI.PO.2. Digitalization of the OSHA / fire safety training process

P.I. MUREȘAN, I. MILOSAN, Transilvania University of Brasov, Material Science Department, Brașov, ROMANIA

VI.PO.3. Optimization of deposition parameters for multifunctional coatings

C. CROITORU, I.C. ROATĂ, A. PASCU, E.M. STANCIU, M.A. POP, Transilvania University of Brasov, ROMANIA

VI.PO.4. Comparison between QEC and RULA methods in ergonomic risk assessment in industry field. Case study for worker at the conveyor belt

A. ISPASOIU, I. MILOSAN, Transilvania University of Brasov, Material Science Department, Braşov, ROMANIA

VI.PO.5. Influence of the temporal laser pulse shaping for stainless steel welding

E.M. STANCIU, A. PASCU, C. CROITORU, I.C. ROATĂ, E.R. MOLDOVAN, G.L. ARDELEAN, D.C. CUCULEA, Transilvania University of Brasov, Materials Engineering and Welding Department, Braşov, ROMANIA

VI.PO.6. Optimization of deposition parameters for anticorrosive layers using design of experiments

I.C. ROATĂ, C. CROITORU, A. PASCU, E.M. STANCIU, M.A. POP, Transilvania University of Brasov, ROMANIA

VIII.PO.1. Photochemical decolorization: investigations regarding economic viability of cosmetic grade TiO₂

L. PINTILIE, E.N. DRĂGOI, G.D. SUDITU, M.T. NECHITA, V. DAFINESCU, "Gheorghe Asachi" Technical University of Iasi, Bd. Prof. Dimitrie Mangeron, No. 73, 700050, Iaşi, ROMÂNIA

VIII.PO.2. International teaching and practice for engineering students

N.R. FLORIDO-SUÁREZ, P.P. SOCORRO-PERDOMO, J.C. MIRZA-ROSCA, University of Las Palmas de Gran Canaria, Mechanical Engineering Dept., Las Palmas de Gran Canaria, SPAIN
A. PASCU, Transilvania University of Brasov, Materials Engineering and Welding Department, Braşov, ROMANIA

Garcini research base

14.00: Camp fire and barbeque

18.00: Closing Ceremony

Saturday, 12.03.2022

Free visit of Brasov city