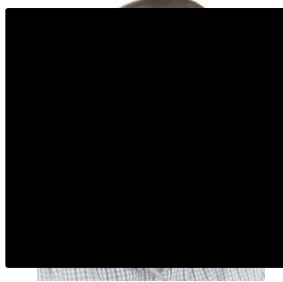


**PERSONAL INFORMATION Prof. Florin MICULESCU (Dr. Habil. Eng. BSc.)**



313 Splaiul Independenței, Building J, Office JK 101, District 6, Bucharest, România  
 florin.miculescu@upb.ro, f\_miculescu@yahoo.com, florin.miculescu@gmail.com

www.florinmiculescu.ro, +40.21.316.95.63

ORCID ID: 0000-0001-6757-5616

Researcher ID: A-4524-2011

Brainmap ID: U-1700-039K-8235

Sex: Male

Nationality: Romanian

**OCUPATIONAL FIELD**

Higher Education – Scientific Research

**WORK EXPERIENCE**

**Period**

2015 - present	Professor
2013 - 2015	Associate Professor
2009 - 2013	Lecturer
2006 - 2009	Assistant Professor

**Materials Engineering**

Materials Science and Engineering Faculty, University Politehnica of Bucharest, 313 Splaiul Independenței, District 6, Bucharest, România

• Teaching courses: • Materials Science; • Materials Characterization Techniques; • Electron Microscopy and Microanalysis; • Biomaterials Analysis and Control Techniques; • Biomaterials Testing and Investigation

• Research in the field of materials, biomaterials and nanomaterials synthesis, processing and characterization

• Head of: • Electron Microscopy Laboratory (since 2001); • Biomaterials and Nanomaterials Synthesis, Processing and Characterization Laboratory (since 2017)

Business or sector: Higher Education – Scientific Research

**EDUCATION AND TRAINING**

2014

**Habilitation title – PhD. Students coordinator in Materials Engineering field**

University Politehnica of Bucharest, 313 Splaiul Independenței, District 6, Bucharest, România Habilitation Thesis: "Materials for bones reconstruction and thin layers analysis by computer simulation and microanalytical experiment", Dr.Habil. Title by Ministerial Order No. 378/15.07.2014

2010-2013

**Post-doctoral training**

University Politehnica of Bucharest, 313 Splaiul Independenței, District 6, Bucharest, România Materials Science and Engineering field, on "Nanostructured thin layers with multiple applications" in the Sectorial Operational Program Human Resources Development 2007 - 2013, POSDRU / 89 / 1.5 / S / 54785

2007

**Post-doctoral training**

Kavli Institute of Nanoscience, Technical University of Delft, Netherlands  
 3 months on Electron Microscopy and Nanotechnology - Intensive Program for Transfer of Knowledge to Eastern Europe Reference Pole for Micro- and Nanotechnologies (NANOTEC-EST), FP6-Marie Curie Actions-ToK, Contract no. 014059/2005

**Qualification awarded / main themes**

- • Analytical Transmission Electron Microscopy in Nanomaterials Science, • Techniques for Structural Nanomaterials Investigation: Practical Applications, • Nano Membrane Materials, • Nanomaterials for Advanced Magnetic Separation, • Chemical Nanosystems, • Clean and Green Technologies, • Biomaterials, Nanotechnology and Biocompatibility, • Nanosize Effect and Critical Dimension in Bioapplications • Composition-Structure-Microstructure-Properties Correlations in Oxide Nanomaterials, • Methods of Synthesis of Nanostructured Materials, • Micro and Mesoporous Materials - Synthesis Techniques and Applications, • Hybrid and Composite Materials. Properties and Applications, • Bioanalysis with Trends and Requirements in the Field of Nanotechnology, • Biosensing and Biosensors with Nanomaterials, • Validation and Standardization of (Bio)analytical Methods
- Communication skills using advanced techniques
- Research and teaching on materials synthesis, processing and characterization

**Doctoral degree in Materials Engineering**

University Politehnica of Bucharest, 313 Splaiul Independenței, District 6, Bucharest, România PhD.  
Thesis: "Experimental research on the biomaterial-tissue interface interactions"

2006

- Biomaterials, Materials Science, Electron Microscopy and Microanalysis, Materials Characterisation Techniques
- Skills on materials synthesis and precessing, materials and nanomaterials investigation techniques, implantology and biomaterials - tissue interactions

**Engineer degree- Valedictorian**

University Politehnica of Bucharest, 313 Splaiul Independenței, District 6, Bucharest, România

1996-2001

- Material Science, Chemistry, Materials Analysis Techniques, Materials Structural Theory, Surface Engineering, Materials Thermal Processing
- Skills on materials synthesis, processing and characterization

**Additional training**

**Teaching training courses**

- Psychopedagogical training course I<sup>st</sup> level, Teacher Training Department from University Politehnica of Bucharest, Order Nr. 123 / 22.01.2002, Diploma Series D, No. 0002823
- Psychopedagogical training course II<sup>nd</sup> level, Teacher Training Department from University Politehnica of Bucharest, Order, No. 0199 / 09.07.2018, Diploma Series A, No. 0002174

**Advanced training programs**

- June 2007 – on materials thermophysical properties, at ANTER Corporation in Pittsburgh, USA
- May 2006 – on biomaterials, at the Technical University of Lisbon, Portugal
- December 2005 – on scanning electron microscopy and EDS spectrometry, at the Institute of Chemistry and Materials Physics of Strasbourg, France
- July 2003 – on ESEM microscopy and EDS spectrometry, at the Technical University of Vienna, Austria
- September 2002 – on SEM microscopy and EDS microanalysis, at FEI Philips Company, Eindhoven, Netherlands
- January 2023 – on SEM microscopy and EDS microanalysis, Thermo Fischer Company

**PERSONAL SKILLS**

Mother tongue  
Other language(s)

	Romanian		SPEAKING		WRITING
	UNDERSTANDING		Spoken interaction	Spoken production	
	Listening	Reading			
English	C1	C1	C2	C2	C2
French	A2	A2	A2	A2	A2

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user  
Common European Framework of Reference for Languages

Communication skills

- Good communication and integration skills gained through teaching and research experience

Organisational and Managerial skills

- Good organizational skills demonstrated as research projects team leader and working in teaching activities, also coordinating research activities as head of laboratory, project manager for teams involving teaching fellows, PhD. students, master students and bachelor students
- Leadership

Job-related skills

- Technical skills confirmed and shown in the statement of activities: design, implementation, analysis, characterization and demonstration on the properties and characteristics of materials, nanomaterials, biomaterials and devices

Computer skills

- Specialized on electron microscopy and microanalysis software
- Good command on software for: ♦ simulation of accelerated particle beams interaction with the solid state; ♦ molecular dynamics modelling; ♦ image analysis; ♦ micro&nano-CT; ♦ Microsoft Office™ tools

Driving licence

- Category: B

**ADDITIONAL INFORMATION**

**Managed grants and resulting publications**

**Project manager**

- "Novel technology for implants manufacturing from 3D printable reinforced composite filaments for guided bone regeneration", PN-III-P2-2.1-PED-2021-1650, Contract number 583PED/2022, BoneGapFill (2 years). Publications: WoS 000901197100001, WOS:001149426100001, WOS:000958878300001
- "New technology for the synthesis and manufacturing of biomimetic implants derived from biogenic resources used for bone reconstruction surgery", Grant PN-III-P2-2.1-PED-2016-0892, BiolmMS (2 years). Publications: WoS:000416184600078, WoS:000425731200016, WOS:000425731200017

- “Integrated technology for custom-made biomimetic implants development used for major bone defects reconstruction” Grant PN-II-RU-TE-2014-4-0590, BioMimBone (2 years). Publications: WoS: 000374585600001, WoS: 000405772200015, WoS:000412382700002, WoS:000416184600080, WoS:000425731200017
- “Combined methods for evaluation of the heavy metals contamination of human beings correlated with human hard tissues metabolism” Contract TE Nr.144/2010. (3 years). Publications: WoS: 000289716200028, WoS: 000297986100026, WoS: 000308047400007, WoS:000308313002379, WoS:000312710300032, WoS: 000315547300022, WoS:000323397900019, WoS:000336552600022
- “New methods for investigating the mechanisms involved in the tissue-biomaterial interaction”, Grant CNCISIS Theme 11, Cod 190/2002 (3 years). Publications: WoS: 000251435200002; WoS: 000275165700018

### Project team leader

- “Advanced research for producing combinatorial coatings of interest for fusion”, Contract CNMP Nr. 72-223/2008, CAPACIF (3 years). Publications: WoS: 000286575200010
- “Spin valves: from combinatorial methods of processing to performance properties”, Contract CNMP Nr. 71-032/2007, VALS (3 years). Publications: WoS: 000278579400006, WoS: 000286575200010
- “Production and study the behavior of coatings of carbon, tungsten and beryllium used in the first wall of thermonuclear fusion facilities”, Contract CEEEX nr. 10-89/2006, FUSITERMAT (2 years)
- “Depth analysis on the structural implications resulting from the use of alternative fuels in cement obtaining”, Contract CEEEX nr.121/10.10.2005, IARIS (3 years)

### Honours and awards

- **Gold medals (39):** 1 at Worldinvent Singapore 2024, 3 at Euroinvent 2023; 3 at iCan 2022 Toronto, Canada; 2 at INOVA 2022, Osijek, Croatia; 3 at PRO INVENT 2022, Cluj-Napoca, România; 2 at Salonul Internațional de Invenții și Inovații “Traian Vuia” 2022, Timișoara, Romania; 2 at EUROINVENT 2022, Iasi, România; 1 at INVENTCOR 2022, Deva, Romania; at Inventica 2022, Iasi, România; 2 at INOVA 2021 Zagreb, Croatia; 2 at Kaohsiung International Invention & Design Expo, 2021, Kaohsiung, Taiwan; at iCAN 2021, Toronto, Canada; at INTARG Poland, 2021; at the EIS Euroinvent 21, Chișinău, Republica Moldova; at INOVA 2019, Zagreb, Croatia; at “IWIS”, 2019, Warsaw, Poland; at the “Traian Vuia ‘19” Salon, 2019, Timișoara, România; at Pro Invent 2018, Cluj-Napoca, România; at IWIS 2017, Poland; 2 at 2017, Iasi, România; 2 at the “Traian Vuia” Inventions and Innovations International Salon 2017, Timișoara, România; 3 at Inventica 2017, Iasi, România; at Invent Invest 2017, Ungheni, Republica Moldova; at Rolnvent 2017, Cluj-Napoca, România
- **Diplomas of excellence (17):** 2 at Croatia Invention and Innovation show INOVA, Zagreb, 2023; 2 at at Istanbul International Fair ISIF 2023, Istanbul, Turkey; 1 at INOVA 2022, Osijek, Croatia; 2 at PRO INVENT 2022, Cluj-Napoca, România; at EUROINVENT 2022, Iasi, Romania; at EIS Euroinvent 21, Chișinău, Republica Moldova; at ICAN 2021, Toronto, Canada; from the “Iustin Capră” Association of Inventors, 2019; at the 22<sup>nd</sup> International Salon of Invention and Exhibition 2019, Iasi, România; at the “Traian Vuia ‘19” Salon, 2019, Timișoara, România; at Pro Invent 2018, Cluj-Napoca, România; at the International Fair of Inventions and Practical Ideas Invent Invest 2017, Ungheni, Republica Moldova; at the “Traian Vuia” Inventions and Innovations International Salon, 2017, Timișoara, România; at Rolnvent 2017, Cluj-Napoca, România
- **Special Awards (26):** 1 at The 38<sup>th</sup> World Genius Convention and Education Expo 2024, 1 Best international invention & innovation Award (National Research Council of Thailand), 2024, 1 at Istanbul International Fair ISIF 2023, Istanbul, Turkey; 2 at 9<sup>th</sup> International Salon of Inventions and Innovations “Traian Vuia”, Timișoara 2023; 5 at Eurinvent 2023; 2 at iCan 2022, Toronto, Canada; 5 at INOVA October 2022, Osijek, Croatia; at Inventica 2022, Iasi, România; 3 at EUROINVENT 2022, Iasi, Romania; at EUROINVENT 2021, Iasi, România; at INTARG Poland, 2021; at INOVA, 2019, Zagreb, Croatia; at “IWIS” 2019, Warsaw, Poland; at the “Traian Vuia ‘19” Salon 5<sup>th</sup> edition, Timișoara, România
- **Diamond Awards (2):** 2 at INTARG 2022, Katowice, Poland
- SRB Excellence Award, for the contribution in the biomaterials field in 2018
- SRB Excellence Award, for the contribution in the biomaterials field in 2016
- 4<sup>th</sup> place, at the 13<sup>th</sup> Edition of the National Contest for Scientific-Technic Creations, awarded by the Romanian Society of Metallurgy (SRM)
- SRB Scholarship, awarded by the Romanian Society for Biomaterials in 2007
- SRB Award, Poster Session at the 5<sup>th</sup> International Conference Bioremed, 2005, Iasi, România
- 2<sup>nd</sup> place, at the International Conference Journees Scientifiques du CFBD, 2003, Neuchâtel, l’Espace Perrier de Marin-Epagnier, Suisse
- >25 CNCISIS - prizes - Awarding of the research results
- 5 books
- 9 book chapters at international publishing houses (4 at Wiley/ 3 at Springer/ 2 at IntechOpen)
- 1 book as Editor at international publishing house (MDPI)

### Representative publications

- >130 Web of Science (WoS) quoted papers (>150 indexed papers), 31 in Q1 category (13 as principal author) and 37 in Q2 category (9 as principal author)
- >200 SCOPUS indexed papers
- Web of Science (WoS) cumulative impact factor as principal author >150, from a total >250
- >2000 Web of Science citations, excluding self-citations of all coauthors
- >2000 SCOPUS citations, excluding self-citations of all coauthors
- Web of Science h index = 33 (22 excluding self-citations of all coauthors)
- SCOPUS h index = 34 (23 excluding self-citations of all coauthors)
- scholar.google h index = 37
- >160 conference presentations (>30 oral communications - 16 as invited speaker, Chairperson at 14 conferences)
- **Editorial Board Member** of WoS indexed journals: ♦ Materials (Q1); ♦ Metals - MDPI (Q2); ♦ Journal of Advanced Biotechnology and Bioengineering; ♦ Journal of Functional Biomaterials;
- **Guest Editor** of: ♦ Journal of Functional Biomaterials – MDPI, „Bioceramics and Bioactive Glass-Based Materials” –2<sup>nd</sup> Ed. (2023-2024); ♦ Materials, Biomaterials and Implant Biocompatibility 2<sup>nd</sup> Ed., MDPI, (Q1) 2020-2021; ♦ Metals – MDPI (Q2), „Metals as Biomaterials” (2020-2021), ♦ Materials– MDPI (Q1), „The Synthesis and Characterization of Biocompatible Materials” (2019-2020); ♦ Journal of Functional Biomaterials – MDPI, „Bioceramics and Bioactive Glass-Based Materials” (2019-2020), Materials (Q2) – MDPI, „Biomaterials and Implant Biocompatibility” (2018-2019); ♦ Journal of Nanomaterials (Q3) - Hindawi Publishing Corporation, „Graphene Based Composites: From Theories to Advanced Applications” (2016-2017)

## Memberships

- **Director** of the Doctoral School of the Faculty of Materials Science and Engineering, Politehnica University of Bucharest (2020 – 2024, 2024-2029)
- **Member** of the Scientific Experts Comitee from the National Council for the Attestation of Titles, Diplomas and Academic Certificates - CNATDCU (2024-2028)
- **President** of the Materials Engineering and Science Committee from the National Council for the Attestation of Titles, Diplomas and Academic Certificates - CNATDCU (2020-2024)
- **Member** of the Materials Engineering Committee from the National Council for the Attestation of Titles, Diplomas and Academic Certificates - CNATDCU (2016-2020)
- **Member** of the Directorial Board of the Doctoral School from Materials Science and Engineering Faculty (2016-2024, 2024-2029)
- **Treasurer** of the Romanian Society for Biomaterials SRB (2012-2014, 2017-2020 and 2021-2024)
- **President** of the Romanian Society for Biomaterials SRB (2014-2017)
- **Founding Member** of the Romanian Society of Electron Microscopy (2013)
- **Member** of the TERMIS International Society (2012 - present)
- **Evaluation Expert** of the UEFISCDI Materials Science Committee (2016 - present)
- **Member** of the research team in 8 international and over 60 national projects
- **Reviewer** of: ♦ Materials Letters; ♦ Applied Surface Science; ♦ Ceramics International; ♦ Acta Biomaterialia; ♦ Nanomaterials; ♦ Intermetallics; ♦ Materials Science & Engineering B; ♦ Carbohydrate Polymers; ♦ Materials&Design; ♦ Helyion; ♦ PLOS ONE; ♦ Metals; ♦ Polymers; ♦ Materials; ♦ Coatings; ♦ Symmetry; ♦ International Journal of Molecular Sciences; ♦ Journal of Materials Science in Semiconductor Processing; ♦ Corrosion Reviews; ♦ Surfaces and interfaces; ♦ Multidiscipline Modeling in Materials and Structures; ♦ Optics & Laser Technology; ♦ Materials Chemistry and Physics; ♦ Journal of Materials Science; ♦ Materials Today Communications; ♦ Journal of the Australian Ceramic Society; ♦ Additive Manufacturing, Engineering Science and Technology; ♦ Journal of Polymers and the Environment; ♦ Frontiers in Bioengineering and Biotechnology; ♦ Journal of Pharmaceutical and Biomedical Analysis; ♦ Bioengineering; ♦ Journal of Adhesion Science and Technology; ♦ Journal of Optoelectronics and Advanced Materials; ♦ Journal of Functional Biomaterials; ♦ University Politehnica of Bucharest Scientific Bulletin Series B - Chemistry and Materials Science; ♦ Revista de Chimie; ♦ Key Engineering Materials; ♦ Advanced Materials Research

## Reference collaborations

**Research Manager** of third party projects (>60): ♦ Henkel, ♦ Honeywell, ♦ Tymken, ♦ Lindab, ♦ Mechel, ♦ Lukoil, ♦ Scandia, ♦ LAREX, ♦ ALSTOM, ♦ Steinel, ♦ Afriso, ♦ ALRO, ♦ IcemEnerg, ♦ Kvaerner, ♦ ISPAT SIDEX, ♦ IMNR, ♦ UMF, ♦ INEC, ♦ INFLPR, ♦ ICAA, ♦ ICEM

## References

♦ Prof. C. James Kirkpatrick, ♦ Prof. Viorel-Aurel Șerban, ♦ Vicerector Prof. Horia Iovu, ♦ Dean Prof. Radu Ștefănoiu, ♦ Prof. Iulian Antoniac, ♦ Prof. Iulian Ripoșan, ♦ Prof. Horia Țierean, ♦ Prof. Corneliu Munteanu, ♦ Prof. José Miguel Martín-Martínez, ♦ Prof. Marioara Abrudeanu, ♦ CS I George E. Stan, ♦ CS I Cristian Lungu, ♦ CS I Victor Kuncser

**Date:**  
19.01.2026

**Signature:**  
Prof. Florin Miculescu

## THE PUBLICATIONS AND ACTIVITIES LIST

Prof. Florin Miculescu (Dr.Habil.Eng.)

### I. Thesis

- T1. **PhD. Thesis (T)** “*Experimental research on the biomaterial-tissue interface interactions*”, Politehnica University of Bucharest (2006), PhD. Degree by Ministerial Order No. 3824/03.05.2006
- T2 **Habilitation Thesis (H)** “*Materials for bones reconstruction and thin layers analysis by computer simulation and microanalytical experiment*”, Politehnica University from Bucharest (2014), Dr.Habil. Title by Ministerial Order No. 378/15.07.2014

### II. Books (B)

B – Books / courses (manuals) for students use, published in recognized publishers

- B1. D. Bojin, D. Bunea, **F. Miculescu**, M. Miculescu, „*Microscopie Electronică de Baleiaj și Aplicații*”, Ed. AGIR, ISBN 973-720-019-5 (217 pag.), 2005
- B2. **F. Miculescu**, “*Metode Experimentale de Analiză a Biomaterialelor*”, Ed. Printech, ISBN 978-973-718-658-4 (152 pag.), 2007
- B3. Ion Pătrașcu, L.T. Ciocan, **F. Miculescu**, “*Biomateriale și Tehnologii Protetice în Implantologia Orală*”, Ed. Printech, ISBN 978-606-521-093-6 (189 pag.), 2008
- B4. **F. Miculescu**, “*Tehnici de Analiză și Control a Biomaterialelor*”, Ed. Printech, ISBN 978-606-521-331-9 (244 pag.), 2009
- B5. L.T. Ciocan, **F. Miculescu**, I. Pătrașcu, M. Miculescu, “*Biological Reactions to Dental Implants*”, in “*Implant Dentistry – A Rapidly Evolving Practice*”, I. Turkyilmaz Editor, InTechOpen, pag. 505-530, DOI: 10.5772/17925, ISBN 978-953-307-658-4, 2011
- B6. **F. Miculescu**, A. Maidaniuc, G.E. Stan, M. Miculescu, S.I. Voicu, L.T.Ciocan, “*Thermal Degradation and Morphological Characteristics of Bone Products*”, in “*Reactions and Mechanisms in Thermal Analysis of Advanced Materials*”, A. Tiwari, B. Raj Editors, Wiley, pag. 393-410, DOI: 10.1002/9781119117711.ch16, ISBN: 978-1-119-11757-5, 2015
- B7. Antoniac, I.V., **Miculescu, F.**, Laptoiu, D., Antoniac, A., Niculescu, M., Grecu, D., Book Chapter, “*Retrieval Analysis of Hip Prostheses*”, in “*Handbook of Bioceramics and Biocomposites*”, I.V. Antoniac Editor, Springer, pag. 901-933, DOI: 0.1007/978-3-319-12460-5\_43, ISBN 978-3-319-12459-9, 2016
- B8. **Miculescu, F.**, Ciocan, L.T., Miculescu, M., Berbecaru, A., Oliva, J., Comăneanu, R.M., Book Chapter “*Failure Analysis of Dental Prosthesis*”, in “*Handbook of Bioceramics and Biocomposites*”, I.V. Antoniac Editor, Springer, pag. 1217-1246, DOI: 10.1007/978-3-319-12460-5\_56, ISBN 978-3-319-12459-9, 2016.
- B9. **F. Miculescu**, A. Maidaniuc, G.E. Stan, M. Miculescu, S.I. Voicu, A. Cîmpean, V. Mitran, D. Batalu, “*Tuning Hydroxyapatite Particles Characteristics for Solid Free Fabrication of Bone Scaffolds*”, in “*Advanced Composite Materials*” (Advanced Materials Book Series), A. Tiwari, M. Rabia Alenezi, S. Chan Jun Editors, WILEY-Scrivener Publishing, USA, pag. 321-397, DOI: 10.1002/9781119242666, ISBN 987-1-119-24253-6, 2016
- B10. M.C. Corobea, Z. Vuluga, D. Florea, **F. Miculescu**, S.I. Voicu, “*Composites and Nanocomposites Based on Polylactic Acid Obtaining*” in “*Handbook of Composites from Renewable Polymers*”, V. Kumar Thakur, M. Kumari Thakur, M.R. Kessler Editors, John Wiley and Sons, vol.8, pag. 327-360, DOI: 10.1002/9781119441632.ch160, ISBN 978-1-119-22383-2, 2017
- B11. **F. Miculescu**, A.C. Mocanu, A. Maidaniuc, C.A. Dascălu, M. Miculescu, S.I. Voicu, “*Biomimetic Calcium Phosphates Derived from Marine and Land Bioresources*”, in “*Hydroxyapatite - Advances in Composite Nanomaterials, Biomedical Applications and It’s Technological Facets*”, J. Thirumalai Editor, InTechOpen, pag. 89-108, DOI: 10.5772/intechopen.71489, ISBN 978-953-51-5731-1, 2018
- B12. **F. Miculescu**, AC. Mocanu, GE. Stan, A. Maidaniuc, M. Miculescu, SI. Voicu, I.V. Antoniac, “*Bioceramics Derived from Marble and Sea Shells as Potential Bone Substitution Materials*”, in “*Bioceramics and Biocomposites: from Experiment to Clinical Use*”, I.V. Antoniac Editor, Wiley, pag. 87-122, DOI: 10.1002/9781119372097.ch5, ISBN-10: 1119049342, 2019
- B13. Maidaniuc, **F. Miculescu**, “*Bioceramic-Starch Paste Design for Additive Manufacturing and Alternative Fabrication Methods Applied for Developing Biomedical Scaffolds*” in “*3D printable Gel-inks for Tissue Engineering*”, A. Kumar, S.I. Voicu, V.K. Thakur Editors, Springer, pag. 261-296, DOI: 10.1007/978-981-16-4667-6\_8, ISBN: 9789811646669, 2021

### III. OTHER PUBLISHED MATERIALS

#### I - Collections of Problems and Laboratory Guidance published with ISBN

- I1. I.V. Antoniac, **F. Miculescu**, M. Miculescu, D. Lăptoiu, "Biomateriale - Culegere de Probleme", Ed. Printech, ISBN 978-973-718-880-9 (112 pag.), 2007

#### II – Books as Editor at international publishing houses

- II1. A. Cîmpean, **F. Miculescu**, "Biomaterials and Implants Biocompatibility", Ed. MDPI, DOI: 10.3390/books978-3-03928-217-3, ISBN 978-3-03928-217-3 (420 pag.), 2020

### IV. EXTENSIVE PUBLISHED ARTICLES / STUDIES (C) Recognized international journals (Web of Science indexed)

#### WOS Clarivate Analytics quoted articles

- C1 P. Moldovan, G. Popescu, **F. Miculescu**, *Microscopic Study Regarding The Microstructure Evolution Of The 8006 Alloy In The Plastic Deformation Process*, Journal of Materials Processing Technology, Vol. 153, Part 1, SI, Pag. 408-415, DOI: 10.1016/J.Jmatprotec. 2004.04.345, WOS: 000225845500064, ISSN: 0924-0136, 2004. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q2, FI 5.551**
- C2 E. Aionicesei, D. Ionita, **F. Miculescu**, A. Cimpan, I. Demetrescu, *Connection Between Biocompatibility and Electrochemical Stability of a Co-Cr-Mo Alloy*, Revista de Chimie, Vol. 57, Iss. 8, Pag. 813-818, WOS: 000241770200006, ISSN: 0034-7752, 2006. Document Type: Article, Web of Science Categories: Chemistry, Multidisciplinary.
- C3 M. Caposi, D. Ionita, **F. Miculescu**, I. Demetrescu, *Surface Treatments in Electrochemical Behaviour of TiNi Wires for Implant Purposes*, Revista de Chimie, Vol. 58, Iss. 9, Pag. 875-879, WOS: 000250636800004, ISSN: 0034-7752, 2007. Document Type: Article, Web of Science Categories: Chemistry, Multidisciplinary.
- C4 M.M. Sovar, G.G. Tihan, **F. Miculescu**, V. Mitran, *Effect of Saliva pH on Electrochemical Stability of Co-Cr-Mo Bioalloy with a Bio-Chemically Modified Surface*, Revista de Chimie, Vol. 58, Iss. 9, Pag. 886-889, WOS: 000250636800006, ISSN:0034-7752, 2007. Document Type: Article, Web of Science Categories: Chemistry, Multidisciplinary.
- C5 M. Mindroiu, E. Cicek, **F. Miculescu**, I. Demetrescu, *The Influence of Thermal Oxidation Treatment on the Electrochemical Stability of TiAlV and TiAlFe Alloys and Their Potential Application as Biomaterials*, Revista de Chimie, Vol. 58, Iss. 9, Pag. 898-903, WOS: 000250636800009, ISSN: 0034-7752, 2007. Document Type: Article, Web of Science Categories: Chemistry, Multidisciplinary.
- C6 **F. Miculescu**, D. Bojin, L.T. Ciocan, I.A. Antoniac, M. Miculescu, N. Miculescu, *Experimental Researche on Biomaterial-Tissue Interface Interactions*, Journal of Optoelectronics and Advanced Materials, Vol. 9, Iss. 11, Pag. 3303-3306, WOS: 000251435200002, ISSN:1454-4164, 2007. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Principal author, Q4, IF 0.587**
- C7 D. Ionita, **F. Miculescu**, D. Bojin, I. Demetrescu, *Various Procedures in Electrochemical Evaluation of Hydroxyapatite Films on Titanium*, Journal of Optoelectronics and Advanced Materials, Vol. 9, Iss. 11, Pag. 3316-3319, WOS: 000251435200005, ISSN: 1454-4164, 2007. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q4, IF 0.587**
- C8 T. Laurian, A. Tudor, I.V. Antoniac, **F. Miculescu**, *A Micro-Scale Abrasion Test to Study the Influence of Counterface Roughness on the Wear Resistance of UHMWPE*, Journal of Optoelectronics and Advanced Materials, Vol. 9, Iss. 11, Pag. 3383-3388, WOS: 000251435200021, ISSN: 1454-4164, 2007. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q4, IF 0.587**
- C9 E. Aldea, M. Giurginca, **F. Miculescu**, I. Demetrescu, *Infrared and ESEM Technique in Supporting Ti and Ti-Al-V Alloy Behaviour in Afnor and Tani-Zucchi Solutions*, Journal of Optoelectronics and Advanced Materials, Vol. 9, Iss. 11, Pag. 3396-3399, WOS: 000251435200023, ISSN: 1454-4164, 2007. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q4, IF 0.587**
- C10 I. Pencea, M. Branzei, **F. Miculescu**, M. Pencea, O. Trante, M. Miculescu, *The Matrix Effect on Spectrochemical Analysis Accuracy of AISI 316 Biomaterial Grades*, Journal of Optoelectronics and Advanced Materials, Vol. 9, Iss. 11, Pag. 3411-3414, WOS: 000251435200026, ISSN: 1454-4164, 2007. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q4, IF 0.587**
- C11 E. Rusen, B. Marculescu, L. Butac., T. Zecheru, **F. Miculescu**, T. Rotariu, *Acrylic Cements for Dental Prosthetics*, Journal of Optoelectronics and Advanced Materials, Vol. 10, Iss. 12, Pag. 3436-3441, WOS: 000262022500056, ISSN: 1454-4164, 2008. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q4, IF 0.587**
- C12 I. Bordeasu, MO. Popoviciu, B. Ghiban, N. Ghiban, **F. Miculescu**, *Aspects Concerning Cavitation Erosion of Some Austenitic Stainless Steels Used for Impeller Blades and Displacement Motors*, Metalurgia International, Vol. 14, Iss. 9, Pag. 5-8, WOS: 000269587900001, ISSN: 1582-2214, 2009. Document Type:

- Article, Web of Science Categories: Metallurgy & Metallurgical Engineering. **Q4, IF 0.134**
- C13 C. Ittu, N. Constantin, **F. Miculescu**, C. Dobrescu, *Insulating Powder Used in Iron and Steel Industry*, *Metalurgia International*, Vol. 14, Iss: 4, Pag. 25-28, WOS: 000265002000006, ISSN: 1582-2214, 2009. Document Type: Article, Web of Science Categories: Metallurgy & Metallurgical Engineering. **Q4, IF 0.134**
- C14 I. Patraşcu, L.T. Ciocan, **F. Miculescu**, G.T. Niculescu, *Morpho-Compositional Study of the Ageing Biomaterial in Bone Implants*, *Journal of Optoelectronics and Advanced Materials*, Vol. 11, No. 5, Pag. 744 - 749, WOS: 000267212600029, ISSN: 1454-4164, 2009. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q4, IF 0.587**
- C15 G.E. Stan, C.O. Morosanu, D.A. Marcov I. Pasuk, **F. Miculescu**, G. Reumont, *Effect of Annealing Upon the Structure and Adhesion Properties of Sputtered Bio-Glass/Titanium Coatings*, *Applied Surface Science*, Elsevier, Vol. 255, Iss. 22, Pag. 9132-9138, DOI: 10.1016/j.apsusc.2009.06.117, WOS: 000269075700029, ISSN: 0169-4332, 2009. Document Type: Article, Web of Science Categories: Chemistry, Physical; Materials Science, Coatings & Films. **Q1, IF 6.707**
- C16 M. Prodana, R. Luca, **F. Miculescu**, D. Bojin, *A New Approach in Evaluation Surface Properties of Natural Temporary Teeth from High Polluted Area*, *Key Engineering Materials*, Vol. 415, Pag. 21-24, Document Type: Proceedings Paper. Web of Science Categories: Materials Science, Multidisciplinary, WOS: 000278916000006. ISSN: 1013-9826, 2009. IF = 0.224
- C17 I. Titorencu, M.G. Albu, M. Giurginca, V. Jinga, I.A. Antoniac, V. Trandafir, C. Cotrut, **F. Miculescu**, M. Simionescu, *In Vitro Biocompatibility of Human Endothelial Cells with Collagen-Doxycycline Matrices*, *Molecular Crystals and Liquid Crystals*, Vol. 523, Pag. 82-96, DOI: 10.1080/15421401003724126, WOS: 000278163400007, ISSN: 1542-1406, 2010. Document Type: Article, Web of Science Categories: Crystallography. **Q4, IF 0.896**
- C18 I. Iosub, V. Malinovschi, **F. Miculescu**, A. Meghea, *Biom mineralization Processes in Formation of Uroliths*, *Molecular Crystals and Liquid Crystals*, Vol. 523, Pag. 139-147, DOI: 10.1080/15421401003726691, WOS: 000278163400012, ISSN: 1542-1406, 2010. Document Type: Article, Web of Science Categories: Crystallography. **Q4, IF 0.896**
- C19 L.T. Ciocan, **F. Miculescu**, M. Miculescu, I. Patrascu, *Retrieval Analysis on Dental Implants Biointegration Phases*, *Romanian Journal of Morphology and Embryology*, Vol. 51, Iss. 1, Pag. 117-122, WOS: 000275165700018, ISSN: 1220-0522, 2010. Document Type: Article, Web of Science Categories: Developmental Biology. **Q4, IF 1.033**
- C20 I. Jepu, C. Porosnicu, I. Mustata, C.P. Lungu, V. Kuncser, **F. Miculescu**, *Optimization of Thermionic Vacuum Arc Plasma Used for Multilayer GMR/TMR Films Preparation*, *Romanian Reports in Physics*, Vol. 62, Iss. 4, Pag. 771-779, WOS: 000286575200010, ISSN: 1221-1451, 2010. Document Type: Article, Web of Science Categories: Physics, Multidisciplinary. **Q2 IF 1.785**
- C21 I. Lacatusu, N. Badea, R. Nita, A. Murariu, **F. Miculescu**, I. Iosub, A. Meghea, *Encapsulation of Fluorescence Vegetable Extracts Within a Templated Sol-Gel Matrix*, *Optical Materials*, Vol. 32, Pag. 711-718, WOS: 000276702900013, ISSN: 0925-3467, 2010. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q2 IF 3.08**
- C22 S. Visan, V. Ciobotaru, F. Ionescu, C. Zaharia, **F. Miculescu**, C. Cincu, *Correlation of Chemical Composition and Microstructure with Technical Properties of an Elasto-Plastic Composite Material*, *Optoelectronics and Advanced Materials-Rapid Communications*, Vol. 4, Iss. 5, Pag. 722-725, WOS: 000279246000025, ISSN: 1842-6573, 2010. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q2 IF 0.441**
- C23 V. Kuncser, G. Schinteie, P. Palade, I. Jepu, I. Mustata, C.P. Lungu, **F. Miculescu**, G. Filoti, *Magnetic Properties of Fe-Co Ferromagnetic Layers and Fe-Mn/Fe-Co Bilayers Obtained by Thermo-Ionic Vacuum Arc*, *Journal of Alloys and Compounds*, Vol. 499, Iss. 1, Pag. 23-29, DOI: 10.1016/j.jallcom.2010.03.129, WOS: 000278579400006, ISSN: 0925-8388, 2010. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q1, IF 5.316**
- C24 G.E. Stan, D.A. Marcov, I. Pasuk, **F. Miculescu**, S. Pina, D.U. Tulyaganov, J.M.F. Ferreira, *Bioactive Glass Thin Films Deposited by Magnetron Sputtering Technique: the Role of Working Pressure*, *Applied Surface Science*, Vol. 256, Pag. 7102-7110, DOI: 10.1016/j.apsusc.2010.05.035, WOS: 000279592200029, ISSN: 0169-4332, 2010. Document Type: Article, Web of Science Categories: Chemistry, Physical; Materials Science, Coatings & Films. **Q1, IF 6.707**
- C25 T. Zecheru, T. Rotariu, E. Rusen, B. Marculescu, **F. Miculescu**, L. Alexandrescu, I.A. Antoniac, I.C. Stancu, *Poly(2-hydroxyethyl Methacrylate-co-dodecyl Methacrylate-co-acrylic Acid): Synthesis, Physico-Chemical Characterisation and Nafcellin Carrier*, *Journal of Materials Science-Materials in Medicine*, Vol. 21, Iss. 10, Pag. 2793-2804, DOI: 10.1007/s10856-010-4129-y, WOS: 000283371200009, ISSN: 0957-4530, 2010. Document Type: Article, Web of Science Categories: Engineering, Biomedical; Materials Science, Biomaterials. **Q2, IF 3.896**

- C26 **F. Miculescu**, L.T. Ciocan, M. Miculescu, A. Ernuteanu, *Effect of Heating Process on Micro Structure Level of Cortical Bone Prepared for Compositional Analysis*, Digest Journal of Nanomaterials and Biostructures, Vol. 6, Iss. 1, Pag. 225-233, WOS: 000289716200028, ISSN: 1842-3582, 2011. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Principal author, Q4, IF 0.963**
- C27 **F. Miculescu**, I. Jepu, C. Porosnicu, C.P. Lungu, M. Miculescu, B. Burhala, *A Study on the Influence of the Primary Electron Beam on Nanodimensional Layers Analysis*, Digest Journal of Nanomaterials and Biostructures, Vol. 6, Iss. 1, Pag. 307-317, WOS: 000289716200039, ISSN: 1842-3582, 2011. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Principal author, Q4, IF 0.963**
- C28 I.V. Popescu, I. Pencea, V.F. Anghelina, M. Branzei, **F. Miculescu**, C. Macris, C. Petre, *New Proves Concerning Streamer Mechanism of Vaporization and Sputtering of a Stainless Steel During Sparking for Optical Emission Spectroscopical Analysis*, Romanian Reports in Physics, Vol. 63, Iss. 3, Pag. 823-838, WOS: 000293992000019, ISSN: 1221-1451, 2011. Document Type: Article, Web of Science Categories: Physics, Multidisciplinary. **Q2, IF 1.785**
- C29 **F. Miculescu**, I. Jepu, C.P. Lungu, M. Miculescu, I.V. Antoniac, M. Tarcolea, M. Branzei, *Correleation Between Simmulation and Microanalytical Experiment in Multilayer Nanostructures Type Analysis*, University Politehnica of Bucharest Scientific Bulletin - Series A - Applied Mathematics and Physics, Vol. 73, Iss. 4, Pag. 153-166, WOS: 000299150300013, ISSN: 1223-7027, 2011. Document Type: Article, Web of Science Physics, Multidisciplinary. **Principal author, Q4, IF 0.903**
- C30 E. Rusen, A. Mocanu, B. Marculescu, R. Somoghi, L. Butac, **F. Miculescu**, C. Cotrut, I.V. Antoniac, C. Cincu, *Obtaining Complex Structures Starting from Monodisperse Poly(styrene-co-2-hydroxyethylmethacrylate) Spheres*, Colloids and Surfaces A - Physicochemical and Engineering Aspects, Vol. 375, Iss. 1-3, Pag. 35-41, DOI:10.1016/j.colsurfa.2010.11.034, WOS: 000287285500005, ISSN: 0927-7757, 2011. Document Type: Article, Web of Science Categories: Chemistry, Physical. **Q2, IF 4.539**
- C31 C. Zaharia, M.R. Tudora, **F. Miculescu**, C. Cincu, D. Chappard, *Mineralization Behaviour of Some New Phema-Based Copolymers With Potential Uses in Tissue Engineering*, Optoelectronics and Advanced Materials - Rapid Communications, Vol. 5, Iss. 3-4, Pag. 314-317, WOS: 000290774800027, ISSN: 1842-6573, 2011. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q2, IF 0.452**
- C32 **F. Miculescu**, I. Jepu, C.P. Lungu, M. Miculescu, M. Bane, *Researches Regarding the Microanalysis Results Optimisation on Multilayer Nanostructures Investigations*, Digest Journal of Nanomaterials and Biostructures, Vol. 6, Iss. 2, Pag. 769-778, WOS: 000290789400050, ISSN: 1842-3582, 2011. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Principal author, Q4, IF 0.963**
- C33 M. Braic, V. Braic, M. Balaceanu, A. Vladescu, C.N. Zoita, I. Titorencu, V. Jinga, **F. Miculescu**, *Preparation and Characterization of Biocompatible Nb-C Coatings*, Thin Solid Films, Vol. 519, Iss. 12, SI, Pag. 4064-4068, DOI: 10.1016/j.tsf.2011.01.193, WOS: 000290184500020, ISSN: 0040-6090, 2011. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q3, IF 2.183**
- C34 I.C. Bujanca, M.C. Corobea; **F. Miculescu**, M. Dimonie, *Polystyrene Latex Particles Obtained by Emulsifier-Free Emulsion Polymerization and Their Interaction with Bentonite*, E-Polymers, Art.No. 033, WOS: 000289366900004, ISSN: 1618-7229, 2011. Document Type: Article, Web of Science Categories: Polymer Science. **Q3, IF 2.025**
- C35 **F. Miculescu**, M. Miculescu, L.T. Ciocan, A. Ernuteanu, I.A. Antoniac, I. Pencea, E. Matei, *Comparative Studies Regarding Heavy Elements Concentration in Human Cortical Bone*, Digest Journal of Nanomaterials and Biostructures, Vol. 6, Iss. 3, Pag. 1117-1127, WOS: 000297986100026, ISSN: 1842-3582, 2011. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Principal author, Q4, IF 0.963**
- C36 A. Mocanu, B. Marculescu, R. Somoghi, **F. Miculescu**, C. Boscornea, I.C. Stancu, *Fluorescence Enhancement for the Complex PAMAM-BSA in the Presence of Photonic Crystal Heterostructures*, Colloids and Surfaces A - Physicochemical and Engineering Aspects, Vol. 392, Iss. 1, Pag. 288-293, DOI: 10.1016/j.colsurfa.2011.10.006, WOS: 000298899300038, ISSN: 0927-7757, 2011. Document Type: Article, Web of Science Categories: Chemistry, Physical. **Q2, IF 4.539**
- C37 G.E. Stan, I. Pasuk, L.M. Trinca, A.C. Galca, M. Enculescu, **F. Miculescu**, *Tilt c Axis Crystallite Growth of Aluminium Nitride Films by Reactive RF-Magnetron Sputtering*, Digest Journal of Nanomaterials and Biostructures, Vol. 7, Iss. 1, Pag. 41-50, WOS: 000303649000005, ISSN: 1842-3582, 2012. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q4, IF 0.963**
- C38 B.M. Galbinasu, **F. Miculescu**, D. Pirvu, L.T. Ciocan, D. Herschbach, A. Tonko, I. Patrascu, F. Stoiciu, *Dental Tissue - Inlay Interface Structural Shift at Mechanical and Thermal Stresses*, Optoelectronics and Advanced Materials-Rapid Communications, Vol. 6, Iss. 3-4 Pag. 459-464, WOS: 000304431000023, ISSN: 1842-6573,

2012. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q4, IF 0.441**
- C39 O. Vasile, **F. Miculescu**, S.I. Voicu, *Correlation Aspects Between Morphology, Infrared and Acoustic Absorptions Properties of Various Materials*, Optoelectronics and Advanced Materials-Rapid Communications, Vol. 6, Iss. 5-6, Pag. 631-638, WOS: 000306577000025, ISSN: 1842-6573, 2012. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q4, IF 0.441**
- C40 C. Cotrut, A. Vladescu, A.V. Braic, M. Braic, M. Balaceanu, **F. Miculescu**, *Evaluation of Duplex (Zr,Al)CN Coatings with Improved Tribological Performance*, Journal of Optoelectronics and Advanced Materials, Vol. 14, Iss. 7-8, Pag. 646-652, WOS: 000308718300013, ISSN: 1454-4164, 2012. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q4, IF 0.587**
- C41 M.D. Vranceanu, I.A. Antoniac, **F. Miculescu**, R. Saban, *The Influence of the Ceramic Phase on the Porosity of Some Biocomposites with Collagen Matrix Used as Bone Substitutes*, Journal of Optoelectronics and Advanced Materials, Vol. 14, Iss. 7-8, Pag. 671-677, WOS: 000308718300017, ISSN: 1454-4164, 2012. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q4, IF 0.587**
- C42 **F. Miculescu**, G. E. Stan, L. T. Ciocan, M. Miculescu, A. Berbecaru, I.V. Antoniac, *Cortical Bone as Resource for Producing Biomimetic Materials for Clinical Use*, Digest Journal of Nanomaterials and Biostructures, Vol. 7, Iss. 4, Pag. 1667 – 1677, WOS: 000312710300032, ISSN: 1842-3582, 2012. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Principal author, Q4, IF 0.963**
- C43 **F. Miculescu**, M. Miculescu, L.T. Ciocan, I. Pencea, A. Ernuteanu, E. Matei, *Correlation of Spectrometric Methods in Hard Tissue Heavy Elements Concentration Study*, University Politehnica of Bucharest Scientific Bulletin-Series A-Applied Mathematics And Physics, Vol. 75, Iss. 1, Pag. 233-242, WOS: 000315547300022, ISSN:1223-7027, 2013. Document Type: Article, Web of Science Categories: Physics, Multidisciplinary. **Q4, Principal author IF 0.903**
- C44 R.I. Zamfir, E. Popovici, **F. Miculescu**, M. Danila, A. Parau, *Structural Investigation of Austenitic Stainless Steel Layers Obtained by Laser Surface Alloying*, Journal of Optoelectronics and Advanced Materials, Vol. 15, Iss. 3-4, Pag. 305-310, WOS: 000319788000029, ISSN: 1454-4164, 2013. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q4, IF 0.587**
- C45 **F. Miculescu**, E. Rusen, A. Mocanu, A. Diacon, R. Birjega, *Hierarchical Nanostructures of ZnO Obtained in the Presence of Water Soluble Polymers*, Powder Technology, Vol. 239, Pages: 56-58, DOI: 10.1016/j.powtec.2013.01.051, WOS: 000318581300006, ISSN: 0032-5910, 2013. Document Type: Article, Web of Science Categories: Engineering, Chemical. **Principal author, Q1, IF 5.134**
- C46 **F. Miculescu**, L.T. Ciocan, M. Miculescu, M. Branzei, N. Ghiban, *Thermal Processing Temperature Influence on Hard Tissue Chemical Composition*, Journal of Optoelectronics and Advanced Materials, Vol. 15, Iss. 7-8, Pag. 707-711, WOS: 000323397900019, ISSN: 1454-4164, 2013. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Principal author, Q4, IF 0.587**
- C47 D.L. Cursaru, G. Branoiu, I. Ramadan, **F. Miculescu**, *Degradation of Automotive Materials Upon Exposure to Sunflower Biodiesel*, Industrial Crops and Products, Vol. 54 Pag. 149-158, DOI: 10.1016/j.indcrop.2014.01.032, WOS: 000336340600021, ISSN: 0926-6690, eISSN: 1872-633X, 2014. Document Type: Article, Web of Science Categories: Agricultural Engineering; Agronomy. **Q1, IF 5.645**
- C48 C. Vitelaru, N. Ghiban, A.C. Parau, M. Balaceanu, **F. Miculescu**, A. Vladescu, *Corrosion Behaviour of Ti6Al4V Alloy in Artificial Saliva Solution with Fluoride Content and Low pH Value*, Materialwissenschaft und Werkstofftechnik, Vol. 45, Iss. 2, Pag. 91-98, DOI: 10.1002/mawe.201400191, WOS: 000331874400004, ISSN: 0933-5137, eISSN: 1521-4052, 2014. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q4, IF 0.854**
- C49 R.M. Comaneanu, H.M. Barbu, C. Coman, **F. Miculescu**, L. Chiutu, *Correlations Between Cyto-Histopathological Tissue Changes at the Dental Implant Interface and the Degree of Surface Processing*, Romanian Journal of Morphology and Embryology, Vol. 55, Iss. 2, Pag. 335-341, WOS: 000338329700013, ISSN: 1220-0522, 2014. Document Type: Article, Web of Science Categories: Developmental Biology. **Q4, IF 1.033**
- C50 D.I. Ciocan, D. Stanciu, M.A. Popescu, **F. Miculescu**, I. Plotog, G. Vărzaru, L.T. Ciocan, *Electron Microscopy Analysis of Different Orthodontic Brackets and Their Adhesion to the Tooth Enamel*, Romanian Journal of Morphology and Embryology, Vol. 55, Iss. 2, Pag. 591-596, WOS: 000342868500012, ISSN: 1220-0522, 2014. Document Type: Article, Web of Science Categories: Developmental Biology. **Q4, IF 1.033**
- C51 L. Duta, A.C. Popa, **F. Miculescu**, I.N. Mihailescu, *Ultra High Molecular Weight Polyethylene Acetabular Cups Functionalized with Bioactive Glass Coatings Synthesized by Pulsed Laser Deposition*, Romanian Reports in Physics, Vol. 66, Iss. 3, Pag. 788-800, 2014. WOS: 000342035600019, ISSN: 12211451. Document Type: Article, Web of Science Categories: Physics, Multidisciplinary. **Q2, IF 1.785**
- C52 A.M. Stanescu, L. Stoica, C. Constantin, I. Lacatusu, O. Oprea, **F. Miculescu**, *Physicochemical Characterization and Use of Heat Pretreated Commercial Instant Dry Baker's Yeast as a Potential Biosorbent for Cu(II) Removal*, Clean - Soil, Air, Water, Vol 42, Iss. 11, Pag. 1632-1641, DOI:

- 10.1002/clen.201300484, WOS: 000344777700019, ISSN: 18630650, 2014. Document Type: Article, Web of Science Categories: Environmental Sciences. **Q3, IF 1.77**
- C53 M. Dinu, M. Cojocaru, V. Braic, M. Tarcolea, M. Braic, **F. Miculescu**, A. Vladescu, C.M. Cotrut, *Improvement of the Tribological Performance In Corrosive Environment of CoCr Alloy by TiSiON Coatings*, Applied Surface Science, Vol. 332, Pag. 295-299. DOI: 10.1016/j.apsusc.2015.01.221, WOS: 000350373300040, ISSN: 01694332, 2015. Document Type: Article, Web of Science Categories: Chemistry, Physical; Materials Science, Coatings & Films; Physics, Applied; Physics, Condensed Matter. **Q1, IF 6.707**
- C54 V. Soare, M. Burada, I. Constantin, M. Ghita, V. Constantin, **F. Miculescu**, A.M. Popescu, *Synthesis and Performance of Zn-Ni-P Thin Films*, Chinese Physics B, Vol. 24, Iss. (3), Art.No. 036101, DOI: 10.1088/1674-1056/24/3/036101, WOS: 000351056400041, ISSN: 16741056, 2015. Document Type: Article, Web of Science Categories: Physics, Multidisciplinary. **Q3, IF 1.494**
- C55 M.E. Mânzână, B. Ghiban, I. Bordeășu, N. Ghiban, M. Marin, **F. Miculescu**, *Structural Analysis of Steels by Cavitation Erosion*, Key Engineering Materials, Vol. 583, Pag. 28-31, DOI: 10.4028/www.scientific.net/KEM.583.28, WOS: 000336552600005, ISSN: 10139826 ISBN: 978-303785866-0, 2014. Document Type: Conference Paper, Web of Science Categories: Engineering, Biomedical; Materials Science, Multidisciplinary. **Q3, IF 0.224**
- C56 C.M. Cotruț, S. Ciucă, **F. Miculescu**, I.V. Antoniac, M. Târcolea, D.M. Vrânceanu, *The Influence of Classical and Modern Manufacturing Technologies on the Properties of Metal Dental Bridges*, Key Engineering Materials, Vol. 583, Pag. 163-168, DOI: 10.4028/www.scientific.net/KEM.583.163, WOS: 000336552600027, ISSN: 10139826 ISBN: 978-303785866-0, 2014. Document Type: Conference Paper, Web of Science Categories: Engineering, Biomedical; Materials Science, Multidisciplinary. **Q3, IF 0.224**
- C57 **F. Miculescu**, A. Purcaru, M. Miculescu, L.T. Ciocan, S.I. Voicu, *Hydroxyapatite Induced Microstructure by Cooling Rate Modification of Cancellous Bone Thermal Treatment*, Journal of Optoelectronics and Advanced Materials, Vol. 17, Iss. 7-8, Pages: 1219-1224, WOS: 000359967600048, ISSN: 1454-4164, 2015. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Principal author, Q4, IF 0.587**
- C58 **F. Miculescu**, I. Pencea, M. Miculescu, I.V. Antoniac, L.T. Ciocan, A. Ernuteanu, *Energy Dispersive Techniques Using X-Ray Fluorescence with Primary X-Rays for Human Hard Tissues Analysis*, Key Engineering Materials, Vol. 583, Pag. 129-133, DOI: 10.4028/www.scientific.net/KEM.583.129, WOS: 000336552600022, ISSN: 10139826 ISBN: 978-303785866-0, 2014. Document Type: Conference Paper, Web of Science Categories: Engineering, Biomedical; Materials Science, Multidisciplinary. **Q3, IF 0.224**
- C59 M. Tarcolea, V. Hancu, **F. Miculescu**, O. Smatrea, C. Coman, R.M. Comaneanu, A. Ormenisan, *Research on Microstructural and Chemical Inhomogeneity in Cast Metal Crowns Made of CoCrMoW Alloy*, Revista de chimie, Vol. 66, Iss. 8, Pag. 1143-1146, WOS: 000361124600012, ISSN: 0034-7752, 2015. Document Type: Article, Web of Science Categories: Chemistry, Multidisciplinary.
- C60 M.S. Corobea, M.G. Albu, R. Ion, A. Cimpean, **F. Miculescu**, I.V. Antoniac, V. Raditoiu, I. Sirbu, M. Stoenescu, S.I. Voicu, M.V. Ghica, *Modification of Titanium Surface with Collagen and Doxycycline as a New Approach in Dental Implants*, Journal of Adhesion Science and Technology, Vol. 29, Iss. 23, Pag. 2537-2550. DOI: 10.1080/01694243.2015.1073661, WOS: 000360620800003, ISSN: 0169-4243, 2015. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q3, IF 2.077**
- C61 **F. Miculescu**, I. Jepu, G.E. Stan, M. Miculescu, S.I. Voicu, C.M. Cotrut, T. Machedon-Pisu, S. Ciuca, *Tailoring the Electric and Magnetic Properties of Submicron-Sized Metallic Multilayered Systems by TVA Atomic Inter-Diffusion Engineered Processes*, Applied Surface Science, Vol. 358, Pag. 619-626, Part: B, DOI: 10.1016/j.apsusc.2015.08.247, WOS: 000366220500016, ISSN: 01694332, 2015. Document Type: Article; Proceedings Paper, Web of Science Categories: Chemistry, Physical; Materials Science, Coatings & Films; Physics, Applied; Physics, Condensed Matter. **Principal author Q1, IF 6.707**
- C62 V. Hancu, R.M. Comaneanu, C. Coman, M. Tarcolea, H.M. Barbu, A. Bechir, **F. Miculescu**, A. Lorean, *Microstructure and Chemical Homogeneity of Cast Dental Crowns Made from CoCrMoW Alloy and Ceramic Mass*, Revista de Chimie, Vol. 66, Iss. 9, Pag. 1327-1330, WOS: 000363359700015, ISSN: 0034-7752, 2015. Document Type: Article, Web of Science Categories: Chemistry, Multidisciplinary.
- C63 **F. Miculescu**, A. Maidaniuc, S.I. Voicu, M. Miculescu, A. Berbecaru, L.T. Ciocan, A. Purcaru, A. Semenescu, O. Preda, *Structural and Morphological Induced Modifications in Hydroxyapatite Obtained by Bone Thermal Treatments*, Journal of Optoelectronics and Advanced Materials, Vol. 17, Iss. 9-10, Pag. 1361-1366, WOS: 000364600400021, ISSN: 1454-4164, 2015. Document Type: Article, Web of Science Categories: Chemistry, Multidisciplinary. **Principal author, Q4, IF 0.587**
- C64 L. Duta, G.E. Stan, A.C. Popa, M.A. Husanu, S. Moga, M. Socol, M.I. Zgura, **F. Miculescu**, I. Urzica, A.C. Popescu, I.N. Mihailescu, *Thickness Influence on in Vitro Biocompatibility of Titanium Nitride Thin Films Synthesized by Pulsed Laser Deposition*, Materials, Vol. 9, Iss. 1, Art.No. UNSP 38, DOI: 10.3390/ma9010038, WOS: 000372095300024, ISSN: 1996-1944, 2016. Document Type: Article, Web of

- Science Categories: Materials Science. **Q1, IF 3.623**
- C65 M. Dinu, I. Pana, V. Braic, **F. Miculescu**, M. Balaceanu, A. Vladescu, M. Braic, *In Vitro Corrosion Resistance of Si Containing Multi-Principal Element Carbide Coatings*, Materials and Corrosion-Werkstoffe und Korrosion, Vol. 67, Iss. 9, Pag. 908-914, DOI: 10.1002/maco.201508788, WOS: 000383643100001, ISSN: 0947-5117, 2016. Document Type: Article, Web of Science Categories: Metallurgy & Metallurgical Engineering. **Q2, IF=2.097**
- C66 M.C. Corobea, O. Muhulet, **F. Miculescu**, I.V. Antoniac, Z. Vuluga, D. Florea, D.M. Vuluga, M. Butnaru, D. Ivanov, S.I. Voicu, V.K. Thakur, *Novel Nanocomposite Membranes from Cellulose Acetate and Clay-Silica Nanowires*, Polymers for Advanced Technologies, Vol. 27, Iss. 12, Pag. 1586-1595, DOI: 10.1002/pat.3835, WOS: 000387663300005, ISSN: 1042-7147, 2016. Document Type: Article, Web of Science Categories: Polymer Science. **Q2, IF=3.665**
- C67 S.I. Voicu, R.M. Condruz, V. Mitran, A. Cimpean, **F. Miculescu**, C. Andronescu, M. Miculescu, V.K. Thakur, *Sericin Covalent Immobilization onto Cellulose Acetate Membrane for Biomedical Applications*, ACS Sustainable Chemistry and Engineering, Vol. 4, Iss. 3, Pag. 1765-1774, DOI: 10.1021/acssuschemeng.5b01756, WOS: 000371755400134, ISSN: 2168-0485, 2016. Document Type: Article, Web of Science Categories: Chemistry, Multidisciplinary. **Q1, IF=8.198**
- C68 M. Miculescu, V.K. Thakur, **F. Miculescu**, S.I. Voicu, *Graphene-Based Polymer Nanocomposite Membranes: A Review*, Polymers for Advanced Technologies, Vol. 27, Iss. 7, Pag. 844-859, DOI: 10.1002/pat.3751, WOS: 000378733400001, ISSN: 1042-7147, 2016. Document Type: Article, Web of Science Categories: Polymer Science. **Q2, IF=3.665**
- C69 A Maidaniuc, M. Miculescu, S.I. Voicu, L.T. Ciocan, M. Niculescu, M.C. Corobea, M.E. Rada, **F. Miculescu**, *Effect of Micron Sized Silver Particles Concentration on the Adhesion Induced by Sintering and Antibacterial Properties of Hydroxyapatite Microcomposites*, Journal of Adhesion Science and Technology, Vol. 30, Iss. 17, Pag. 1829-1841, DOI: 10.1080/01694243.2016.1163808; WOS: 000374585600001; ISSN: 0169-4243, 2016. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Principal author, Q3, IF=2.077**
- C70 I.N. Mihailescu, D. Bociaga, G. Socol, G.E. Stan, M.C. Chifiriuc, C. Bleotu, M.A. Husanu, G. Popescu-Pelin, L. Duta, C.R. Luculescu, I. Negut, C. Hapenciuc, C. Besleaga, I. Zgura, **F. Miculescu**, *Fabrication of Antimicrobial Silver-Doped Carbon Structures by Combinatorial Pulsed Laser Deposition*, International Journal of Pharmaceutics, Vol. 515, Iss. 1-2, Pag. 592-606, DOI: 10.1016/j.ijpharm.2016.10.041; WOS: 000389150700060; ISSN: 0378-5173, 2016. Document Type: Article, Web of Science Categories: Pharmacology & Pharmacy. **Q1, IF=5.875**
- C71 **F. Miculescu**, A.C. Mocanu, C.A. Dascalu, A. Maidaniuc, D. Batalu, A. Berbecaru, S.I. Voicu, M. Miculescu, V. Kumar Thakur, L.T. Ciocan, *Facile Synthesis and Characterization of Hydroxyapatite Particles for High Value Nanocomposites and Biomaterials*, Vacuum, Vol. 146, Pag. 614-622, DOI: 10.1016/j.vacuum.2017.06.008, WOS: 000416184600080, ISSN: 0042-207X, 2017. Document Type: Article; Proceedings Paper, Web of Science Categories: Materials Science, Multidisciplinary. **Principal author, Q2, IF=3.627**
- C72 A.M. Pandeale, F.E. Comanici, C.A. Carp, **F. Miculescu**, S.I. Voicu, V.K. Thakur, B.C. Serban, *Synthesis and Characterization of Cellulose Acetate-Hydroxyapatite Micro and Nano Composites Membranes for Water Purification and Biomedical Applications*, Vacuum, Vol. 146, Pag. 599-605, DOI: 10.1016/j.vacuum.2017.05.008; WOS: 000416184600078, ISSN: 0042-207X, 2017. Document Type: Article; Proceedings Paper, Web of Science Categories: Materials Science, Multidisciplinary. **Q2, IF=3.627**
- C73 I.N. Mihailescu, D. Bociaga, G. Popescu-Pelin, G.E. Stan, L. Duta, G. Socol, M.C. Chifiriuc, C. Bleotu, V. Lazar, M.A. Husanu, I. Zgura, **F. Miculescu**, I. Negut, C. Hapenciuc, *Optimized Silicon Reinforcement of Carbon Coatings by Pulsed Laser Technique for Superior Functional Biomedical Surfaces Fabrication*, Biofabrication, Vol. 9, Iss. 2, Art.No. 025029, DOI: 10.1088/1758-5090/aa7076; WOS: 000402913700006, ISSN: 1758-5082, 2017. Document Type: Article, Web of Science Categories: Materials Science, Biomaterials. **Q1, IF=9.954**
- C74 P. Neacsu, A.I. Staras, S.I. Voicu, I. Ionascu, T. Soare, S. Uzun, V.D. Cojocar, A.M. Pandeale, S.M. Croitoru, **F. Miculescu**, C.M. Cotrut, I. Dan, A. Cimpean, *Characterization and In Vitro and In Vivo Assessment of a Novel Cellulose Acetate-Coated Mg-Based Alloy for Orthopedic Applications*, Materials, Vol. 10, Iss. 7, Art.No. 686, DOI: 10.3390/ma10070686, WOS: 000406683000003, ISSN: 1996-1944, 2017. Document Type: Article, Web of Science Categories: Materials Science. **Q1, IF 3.623**
- C75 **F. Miculescu**, A. Maidaniuc, S.I. Voicu, V.K. Thakur, G.E. Stan, L.T. Ciocan, *Progress in Hydroxyapatite-Starch Based Sustainable Biomaterials for Biomedical Bone Substitution Applications*, ACS Sustainable Chemistry & Engineering, Vol. 5, Iss. 10, Pag. 8491-8512, DOI: 10.1021/acssuschemeng.7b02314, WOS: 000412382700002, ISSN: 2168-0485, 2017. Document Type: Article, Web of Science Categories: Chemistry, Multidisciplinary; Green & Sustainable Science & Technology; Engineering, Chemical. **Q1, Principal author, IF 8.198**
- C76 K. Earar, S. Gradinaru, G. Pariza, **F. Miculescu**, A. Antoniac, V.D. Cojocar, A. Mohan, G. Pintilie, D.O.

- Grigorescu, *Effect of The Sterilization Procedures of Different Surgical Meshes for Abdominal Surgery*, Revista de Chimie, Vol. 68, Iss. 8, Pag. 1868-1873, WOS: 000410388000040, ISSN: 0034-7752, 2017. Document Type: Article, Web of Science Categories: Chemistry, Multidisciplinary; Engineering Chemical
- C77 C. Dumitriu, S.I. Voicu, A. Muhulet, G. Nechifor, S. Popescu, C. Ungureanu, A. Carja, **F. Miculescu**, R. Trusca, C. Pirvu, *Production and Characterization of Cellulose Acetate - Titanium Dioxide Nanotubes Membrane Fraxiparinized Through Polydopamine for Clinical Applications*, Carbohydrate Polymers, Vol. 181, Pag. 215-223, DOI: 10.1016/j.carbpol.2017.10.082, WOS: 000418661000027, ISSN: 0144-8617, 2018. Document Type: Article, Web of Science Categories: Chemistry, Applied; Chemistry, Organic; Polymer Science. **Q1, IF 9.381**
- C78 M. Ioniță, L.E. Crică, S.I. Voicu, S. Dinescu, **F. Miculescu**, M. Costache, H. Iovu, *Synergistic Effect of Carbon Nanotubes and Graphene for High Performance Cellulose Acetate Membranes in Biomedical Applications*, Carbohydrate Polymers, Vol. 183, Pag. 50-61, DOI: 10.1016/j.carbpol.2017.10.095, WOS: 000423715000006, ISSN: 0144-8617, 2018. Document Type: Article, Web of Science Categories: Chemistry, Applied; Chemistry, Organic; Polymer Science. **Q1 IF 9.381**
- C79 A. Maidaniuc, **F. Miculescu**, S.I. Voicu, C. Andronescu, M. Miculescu, E. Matei, A.C. Mocanu, I. Pencea, I. Csaki, T. Machedon-Pisu, L.T. Ciocan, *Induced Wettability and Surface-Volume Correlation of Composition For Bovine Bone Derived Hydroxyapatite Particles*, Applied Surface Science, Vol. 438, Pag. 158-166, DOI: 10.1016/j.apsusc.2017.07.074; WOS: 000425731200017, ISSN: 0169-4332, 2018. Document Type: Article, Web of Science Categories: Chemistry, Physical; Materials Science, Coatings & Films; Physics, Applied; Physics, Condensed Matter. **Principal author, Q1, IF 6.707**
- C80 **F. Miculescu**, A.C. Mocanu, G.E. Stan, M. Miculescu, A. Maidaniuc, A. Cîmpean, V. Mitran, S.I. Voicu, T. Machedon-Pisu, L.T. Ciocan, *Influence of The Modulated Two-Step Synthesis of Biogenic Hydroxyapatite on Biomimetic Products' Surface*, Applied Surface Science, Vol. 438, Pag. 147-157, DOI: 10.1016/j.apsusc.2017.07.144, WOS: 000425731200016, ISSN: 0169-4332, 2018. Document Type: Article, Web of Science Categories: Chemistry, Physical; Materials Science, Coatings & Films. **Principal author, Q1, IF 6.707**
- C81 A.M. Pandeale, P. Neacsu, A. Cîmpean, A. Staras, **F. Miculescu**, A. Iordache, S.I. Voicu, V.K. Thakur, O.D. Toader, *Cellulose Acetate Membranes Functionalized with Resveratrol by Covalent Immobilization for Improved Osseointegration*, Applied Surface Science, Vol. 438, Pag. 2-13, DOI: 10.1016/j.apsusc.2017.11.102, WOS: 000425731200002, 2018. Document Type: Article, Web of Science Categories: Chemistry, Physical; Materials Science, Coatings & Films. **Principal author, Q1, IF 6.707**
- C82 L. Duta, C. Ristoscu, G.E. Stan, M.A. Husanu, C. Besleaga, M.C. Chifiriuc, V. Lazar, C. Bleotu, **F. Miculescu**, N. Mihailescu, E. Axente, M. Badiceanu, D. Bociaga, IN. Mihailescu, *New Bio-Active, Antimicrobial and Adherent Coatings of Nanostructured Carbon Double-Reinforced with Silver and Silicon by Matrix-Assisted Pulsed Laser Evaporation for Medical Applications*, Applied Surface Science, Vol. 441, Pag. 871-883, DOI: 10.1016/j.apsusc.2018.02.047, WOS: 000427816400102, ISSN: 0169-4332, 2018. Document Type: Article, Web of Science Categories: Chemistry, Physical; Materials Science, Coatings & Films. **Q1, IF 6.707**
- C83 V. Mitran, R. Ion, **F. Miculescu**, M.G. Necula, A.C. Mocanu, G.E. Stan, I.V. Antoniac, A. Cîmpean, *Osteoblast Cell Response to Naturally Derived Calcium Phosphate-Based Materials*, Materials, Vol. 11, Iss. 7, Art.No. 1097, DOI: 10.3390/ma11071097, WOS: 000442117300048, ISSN: 19961944, 2018. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Principal author, Q1, IF 3.623**
- C84 A. Gaspar-Pintiliescu, A.M. Seciu, **F. Miculescu**, L. Moldovan, E. Ganea, O. Craciunescu, *Enhanced Extracellular Matrix Synthesis Using Collagen Dressings Loaded with Artemisia Absinthium Plant Extract*, Journal of Bioactive and Compatible Polymers, Vol. 33, Iss. 5, Pag. 516-528, DOI: 10.1177/0883911518783216, WOS: 000444406500004, ISSN: 08839115, 2018. Document Type: Article, Web of Science Categories: Biotechnology & Applied Microbiology; Materials Science, Biomaterials; Polymer Science. **Q3, IF 1.756**
- C85 I. Pencea, R.N. Turcu, **F. Miculescu**, C. Predescu, B. Comanescu, *Studies Concerning the Usage of the Intrinsic Morphological and Chemical Features of Some Common and Document Paper Types as Security Items*, Revista de Chimie, Vol. 69, Iss. 11, Pag. 3090-3096, WOS: 000451931500028, ISSN: 0034-7752, 2018. Document Type: Article, Web of Science Categories: Chemistry, Multidisciplinary; Engineering, Chemical
- C86 **F. Miculescu**, A. Maidaniuc, M. Miculescu, N.D. Batalu, R.C. Ciocoiu, S.I. Voicu, G.E. Stan, V.K. Thakur, *Synthesis and Characterization of Jellified Composites from Bovine Bone-Derived Hydroxyapatite and Starch as Precursors for Robocasting*, ACS Omega, Vol. 3, Pag. 1338-1349, DOI: 10.1021/acsomega.7b01855, WOS: 000427933200143, ISSN: 2470-1343, 2018. Document Type: Article, Web of Science Categories: Chemistry, Multidisciplinary. **Principal author, Q2, IF 3.512**

- C87 A. Muhulet, **F. Miculescu**, S.I. Voicu, F. Schütt, V.K. Thakur, Y.K. Mishra, *Fundamentals and Scopes of Doped Carbon Nanotubes Towards Energy and Biosensing Applications*, *Materials Today Energy*, Vol. 9, Pag. 154-186, DOI: 10.1016/j.mtener.2018.05.002, WOS: 000443217900013, ISSN: 24686069, 2018. Document Type: Review, Web of Science Categories: Chemistry, Physical Energy & Fuels Materials Science, Multidisciplinary. **Principal author, Q1, IF = 7.311**
- C88 A.C. Mocanu, G.E. Stan, A. Maidaniuc, M. Miculescu, I.V. Antoniac, R.C. Ciocoiu, S.I. Voicu, V. Mitran, A. Cimpean, **F. Miculescu**, *Naturally-Derived Biphasic Calcium Phosphates Through Increased Phosphorus-Based Reagent Amounts for Biomedical Applications*, *Materials*, Vol. 12, Iss. 3, Art.No. 381, DOI: 10.3390/ma12030381, WOS: 000460768000050, ISSN: 1996-1944, 2019. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Principal author, Q1, IF 3.623**
- C89 I.V. Antoniac, D. Popescu, A. Zapciu, A. Antoniac, **F. Miculescu**, H. Moldovan, *Magnesium Filled Poly(lactic Acid (PLA) Material for Filament Based 3D Printing*, *Materials*, Vol. 12, Iss. 5, Art.No. 719, DOI: 10.3390/ma12050719, WOS: 000462543700035, ISSN: 1996-1944, 2019. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q1, IF 3.623**
- C90 I.V. Antoniac, D.I. Stoia, B. Ghiban, C. Tecu, **F. Miculescu**, C. Vigar, V. Saceleanu, *Failure Analysis of a Humeral Shaft Locking Compression Plate Surface Investigation and Simulation by Finite Element Method*, *Materials*, Vol. 12, Iss. 7, Art.No. 1128, DOI: 10.3390/ma12071128, WOS: 000465500700127, ISSN: 1996-1944, 2019. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q1, IF 3.623**
- C91 S.N. Karlsdottir, I. Csaki, I.V. Antoniac, C.A. Manea, R. Stefanioiu, F. Magnus, **F. Miculescu**, *Corrosion Behavior of AlCrFeNiMn High Entropy Alloy in a Geothermal Environment*, *Geothermics*, Vol. 81, Pag. 32-38, DOI: 10.1016/j.geothermics.2019.04.006, WOS: 000472689800003, ISSN: 0375-6505, eISSN: 1879-3576, 2019. Document Type: Article, Web of Science Categories: Energy & Fuels; Geosciences, Multidisciplinary. **Q1, IF 4.284**
- C92 A.C. Mocanu, M. Miculescu, T. Machedon-Pisu, A. Maidaniuc, R.C. Ciocoiu, M. Ionita, I. Pasuk, G.E. Stan, **F. Miculescu**, *Internal and External Surface Features of Newly Developed Porous Ceramics with Random Interconnected 3D Channels by a Fibrous Sacrificial Porogen Method*, *Applied Surface Science*, Vol. 489, Pag. 226-238, DOI: 10.1016/j.apsusc.2019.05.354, WOS: 000474530600024, ISSN: 0169-4332, eISSN: 1873-5584, 2019. Document Type: Article, Web of Science Categories: Chemistry, Physical; Materials Science, Coatings & Films. **Principal author, Q1, IF 6.707**
- C93 C.A. Dascălu, A. Maidaniuc, A.M. Pandeale, S.I. Voicu, T. Machedon-Pisu, G.E. Stan, A. Cimpean, V. Mitran, I.V. Antoniac, **F. Miculescu**, *Synthesis and Characterization of Biocompatible Polymer-Ceramic Film Structures as Favorable Interface in Guided Bone Regeneration*, *Applied Surface Science*, Vol. 494, Pag. 335-352, DOI: 10.1016/j.apsusc.2019.07.098, WOS: 000487838900040, ISSN: 0169-4332, eISSN: 1873-5584, 2019. Document Type: Article, Web of Science Categories: Chemistry, Physical; Materials Science, Coatings & Films. **Principal author, Q1, IF 6.707**
- C94 C.A. Dascalu, **F. Miculescu**, A.C. Mocanu, A.E. Constantinescu, T.M. Butte, A.M. Pandeale, R.C. Ciocoiu, S.I. Voicu, L.T. Ciocan, *Novel Synthesis of Core-Shell Biomaterials from Polymeric Filaments with a Bioceramic Coating for Biomedical Applications*, *Coatings*, Vol. 10, Iss. 3, Art.No. 283, DOI: 10.3390/coatings10030283, WOS: 000524211800088, eISSN: 2079-6412, 2020. Document Type: Article, Web of Science Categories: Materials Science, Coatings & Films. **Principal author, Q2, IF 2.881**
- C95 A.M. Pandeale, A. Constantinescu, I.C. Radu, **F. Miculescu**, S.I. Voicu, L.T. Ciocan, *Synthesis and Characterization of PLA-Micro-structured Hydroxyapatite Composite Films*, *Materials*, Vol. 13, Iss. 2, Art.No. 274, DOI: 10.3390/ma13020274, WOS: 000515499900021, eISSN: 1996-1944, 2020. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q1, IF 3.623**
- C96 I.V. Antoniac, **F. Miculescu**, C.M. Cotrut, A. Fica, J.V. Rau, E. Grosu, A. Antoniac, C. Tecu, I. Cristescu, *Controlling the Degradation Rate of Biodegradable Mg-Zn-Mn Alloys for Orthopedic Applications by Electrophoretic Deposition of Hydroxyapatite Coating*, *Materials*, Vol. 13, Iss. 2, Art.No. 263, DOI: 10.3390/ma13020263, WOS: 000515499900010, eISSN: 1996-1944, 2020. Document Type: Article; Proceedings Paper, Web of Science Categories: Materials Science, Multidisciplinary. **Q1, IF 3.623**
- C97 A. Muhulet, C. Tuncel, **F. Miculescu**, A.M. Pandeale, C. Bobirica, C. Orbeci, L. Bobirica, A. Palla-Papavlu, S.I. Voicu, *Synthesis and Characterization of Polysulfone-TiO<sub>2</sub> Decorated MWCNT Composite Membranes by Sonochemical Method*, *Applied Physics A-Materials Science & Processing*, Vol. 126, Iss. 3, Art.No. 233, DOI: 10.1007/s00339-020-3408-9, WOS: 000516564000001, ISSN: 0947-8396, eISSN: 1432-0630, 2020. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q2, IF 2.584**
- C98 A. Maidaniuc, **F. Miculescu**, R.C. Ciocoiu, T.M. Butte, I. Pasuk, G.E. Stan, S.I. Voicu, L.T. Ciocan, *Effect of the Processing Parameters on Surface, Physico-Chemical and Mechanical Features of Bioceramics Synthesized From Abundant Carp Fish Bones*, *Ceramics International*, Vol. 46, Iss. 8, Pag. 10159-10171 Part: A, DOI: 10.1016/j.ceramint.2020.01.007, WOS: 000528481900023, ISSN: 0272-8842, eISSN: 1873-3956, 2020.

Document Type: Article, Web of Science Categories: Materials Science, Ceramics. **Principal author, Q1, IF = 4.527**

- C99 Serbanescu, OS; Pandele, AM; Miculescu, F; Voicu, SI Synthesis and Characterization of Cellulose Acetate Membranes with Self-Indicating Properties by Changing the Membrane Surface Color for Separation of Gd(III), *Coatings*, 2079-6412, 2020, Vol. 10, Iss. 5, Article number 468, DOI: 10.3390/coatings10050468, 15, WOS: 000541770900031, eISSN: 2079-6412, 2020. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary; Materials Science, Coatings & Films; Physics, Applied. **Q2, IF = 2.881**
- C100 AM. Pandele, H. Iovu, C. Orbeci, C. Tuncel, **F. Miculescu**, A. Nicolescu, C. Deleanu, SI. Voicu, Surface modified cellulose acetate membranes for the reactive retention of tetracycline, *Separation and Purification Technology*, Vol. 249, Article Number: 117145, DOI: 10.1016/j.seppur.2020.117145, WOS: 000540235100012, ISSN: 1383-5866, 2020. Document Type: Article, Web of Science Categories: Engineering, Chemical. **Q1, IF = 7.312**
- C101 AC. Mocanu, F. Miculescu, M. Miculescu, RC. Ciocoiu, AM. Pandele, GE. Stan, A. Cimpean, SI. Voicu, LT. Ciocan, Comprehensive analysis of compatible natural fibre as sacrificial porogen template for tailored ceramic 3D bioproducts destined for hard tissue reconstruction, *Ceramics International*, Volume: 47, Issue: 4, Pages: 5318-5334, DOI: 10.1016/j.ceramint.2020.10.113, WOS: 000608672000001, ISSN: 0272-8842, eISSN: 1873-3956, 2021. Document Type: Article, Web of Science Categories: Materials Science, Ceramics. **Q1, IF = 4.527**
- C102 AC. Mocanu, F. Miculescu, GE. Stan, AM. Pandele, MA. Pop, RC. Ciocoiu, SI. Voicu, LT. Ciocan, Fiber-Templated 3D Calcium-Phosphate Scaffolds for Biomedical Applications: The Role of the Thermal Treatment Ambient on Physico-Chemical Properties, *Materials*, Volume: 14, Issue: 9, Article Number: 2198, DOI: 10.3390/ma14092198, WOS: 000650579700001, PubMed ID: 33922963, eISSN: 1996-1944, 2021. Document Type: Article, Research Areas: Chemistry; Materials Science; Metallurgy & Metallurgical Engineering; Physics. **Q1, IF 3.623**
- C103 Geambazu, LE, Cotrut, CM, Miculescu, F, Csaki, I, Mechanically Alloyed CoCrFeNiMo0.85 High-Entropy Alloy for Corrosion Resistance Coatings, *MATERIALS*, Volume14, Issue14, Article Number3802, DOI: 10.3390/ma14143802, WOS: 000676238600001, eISSN1996-1944, 2021. Document Type: Article, Research Areas: Chemistry: Materials Science; Metallurgy & Metallurgical Engineering; Physics. **Q1, IF 3.623**
- C104 AM. Pandele, M. Oprea, AA. Dutu, **F. Miculescu**, SI. Voicu, A Novel Generation of Polysulfone/Crown Ether-Functionalized Reduced Graphene Oxide Membranes with Potential Applications in Hemodialysis, *Polymers*, Volume 14, Issue 1, Article Number 148, DOI: 10.3390/polym14010148, WOS: 000743145100001, PubMed ID: 35012170, eISSN2073-4360, 2022, Document Type: Article, Research Areas: Polymer Science, **Q1, IF 4.329**
- C105 PH. Quan, IV. Antoniac, **F. Miculescu**, A. Antoniac, V. Manescu, A. Robu, A. Bița, M. Miculescu, A. Saceleanu, AD. Bodog, V. Saceleanu, Fluoride Treatment and In Vitro Corrosion Behavior of Mg-Nd-Y-Zn-Zr Alloys Type, *Materials*, Volume 15, Issue 2, Article number 566, DOI: 10.3390/ma15020566, WOS: , ISSN: 19961944, 2022, Document Type: Article, Research Areas: Chemistry: Materials Science; Metallurgy & Metallurgical Engineering; Physics. **Q1, IF 3.623**
- C106 Ion, RM; Rizescu, CE; Vasile, DA; Vasilevici, G; Atkinson, I; Rusu, A; Predoana, L; **Miculescu, F**, Layered Double Hydroxides (LDHs) as New Consolidants for Cultural Heritage Masonry, *Crystals*, Volume 12, Issue 4, Article Number 490, DOI 10.3390/cryst12040490, 2022, WOS: 000785379700001, eISSN 2073-4352, Document Type: Article, Research Areas: Materials Science, Multidisciplinary, **Q2, IF 2,67**
- C107 Olaret, E; Voicu, SI; Oprea, R; **Miculescu, F**; Butac, L; Stancu, IC; Serafim, A, Nanostructured Polyacrylamide Hydrogels with Improved Mechanical Properties and Antimicrobial Behavior, *Polymers*, Volume 14, Issue 12, Article Number 2320, DOI 10.3390/polym14122320, 2022, WOS: 000816284400001, eISSN 2073-4360, Document Type: Article, Research Areas: Polymer Science, **Q1, IF 4,967**
- C108 Popescu, AMJ; Branzoi, F; Burada, M; Atkinson, I; Constantin, I; Moreno, JC; **Miculescu, F**; Mitrica, D; Badea, IC; Olaru, MT, Influence of Heat Treatment on the Corrosion Behavior of Electrodeposited CoCrFeMnNi High-Entropy Alloy Thin Films, *Coatings*, Volume 12, Issue 8, Article Number 1108, DOI 10.3390/coatings12081108, 2022, WOS: 000847036700001, eISSN 2079-6412, Document Type: Article, Research Areas: Materials Science, Coatings & Films, **Q2, IF 3,236**
- C109 Mocanu, AC; **Miculescu, F**; Stan, GE; Pasuk, I; Tite, T; Pascu, A; Butte, TM; Ciocan, LT, Modulated Laser Cladding of Implant-Type Coatings by Bovine-Bone-Derived Hydroxyapatite Powder Injection on Ti6Al4V Substrates-Part I: Fabrication and Physico-Chemical Characterization, *Materials*, Issue 22, Article Number 7971, DOI 10.3390/ma15227971, 2022, WOS: 000887357500001, eISSN 1996-1944, Document Type: Article, Research Areas: Chemistry: Materials Science; Metallurgy & Metallurgical Engineering; Physics, **Principal author, Q1, IF 3,748**
- C110 Mocanu, AC; **Miculescu, F**; Dascalu, CA; Voicu, SI; Pandele, MA; Ciocoiu, RC; Batalu, D; Dondea, S; Mitran, V; Ciocan, LT, Influence of Ceramic Particles Size and Ratio on Surface-Volume Features of the Naturally

- Derived HA-Reinforced Filaments for Biomedical Applications, Journal of Functional Biomaterials, Volume 13, Issue 4, Article Number 199, DOI 10.3390/jfb13040199, 2022, WOS: 000901197100001, eISSN 2079-4983, Document Type: Article, Research Areas: Materials Science, Biomaterials, Engineering, Biomedical, **Principal author, Q2, IF 4,901**
- C111 Mocanu AC, **Miculescu F**, Stan GE., Tite T, Miculescu M, Țierean MH, Pascu A, Ciocoiu RC, Butte TM, Ciocan LT, Development of ceramic coatings on titanium alloy substrate by laser cladding with pre-placed natural derived-slurry: Influence of hydroxyapatite ratio and beam power, Ceramics International, Vol. 49, Iss. 7, Pages 10445 – 104541, 2023, ISSN 02728842, DOI, 10.1016/j.ceramint.2022.11.227, WOS: 000944679300001, **Principal author, Q1, IF 5,532**
- C112 Mocanu AC, **Miculescu F**, Constantinescu AE, Pandele MA, Voicu SI, Cîmpean A, Miculescu M. Negrescu AM, Selection Route of Precursor Materials in 3D Printing Composite Filament Development for Biomedical Applications, Materials, Vol. 16, Iss. 6, 2023, Article number 2359, ISSN 19961944, DOI 10.3390/ma16062359, **Principal author, Q1, IF 3,748**
- C113 Radu ER, Pandele AM, Tuncel C, **Miculescu F**, Voicu SI, Preparation and Characterization of Chitosan/LDH Composite Membranes for Drug Delivery Application, Membranes, Vol. 13, Iss. 2, 2023 Article number 179, ISSN 20770375, DOI: 10.3390/membranes13020179, WOS: 000940595000001, **Q1, IF 5,015**
- C114 Dorcioman G, Grumezescu V, Stan GE, Chifiriuc MC, Pircalabioru Gradisteanu G, **Miculescu F**, Matei E, Popescu-Pelin G, Zgura I, Craciun V, Oktar FN, Duta L, Hydroxyapatite Thin Films of Marine Origin as Sustainable Candidates for Dental Implants, Pharmaceuticals, 2023, 15(4), 1294; DOI 10.3390/pharmaceutics15041294, **Q1, IF 6,525**
- C115 Dawod, N; Miculescu, M; Antoniac, IV; **Miculescu, F**; Agop-Forna, D, Metal-Ceramic Compatibility in Dental Restorations According to the Metallic Component Manufacturing Procedure, 2023, Materials, Vol.16, Iss. 16, eISSN 1996-1944, DOI: 10.3390/ma16165556, Art. No. 5556, WOS: 001057632700001, **Q2, IF 3,4**
- C116 Geambazu, LE; Talpeanu, D; Bololoi, RV; Manea, CA; Bololoi, AE; **Miculescu, F**; Patroi, D; Cojocaru, VD, Microstructural Characterization of Al0.5CrFeNiTi High Entropy Alloy Produced by Powder Metallurgy Route, Materials, 2023, Vol. 16, Iss. 21, Art. No. 7038, eISSN 1996-1944, DOI: 10.3390/ma16217038, WOS: 001103322100001, **Q2, IF 3,4**
- C117 Streza, A; Antoniac, A; Manescu, V; Ciocoiu, R; Cotrut, CM; Miculescu, M; **Miculescu, F**; Antoniac, I; Fosca, M; Rau, JV; Dura, H, In Vitro Studies Regarding the Effect of Cellulose Acetate-Based Composite Coatings on the Functional Properties of the Biodegradable Mg3Nd Alloys, Biomimetics, 2023, Vol. 8, Iss. 7, Art. No. 526, eISSN 2313-7673, DOI: 10.3390/biomimetics8070526, WOS: 001120752900001, **Q1, IF 3,4**
- C118 Ghita, AN; Zlagnean, M; Tomus, N; Banu, DM; Popescu, IC; **Miculescu, F**; Piticescu, RR; Matei, AC, Exploring the potential of rare earth element recovery from monazite, University Politehnica of Bucharest Scientific Bulletin Series B-Chemistry and Materials Science, 2023, Vol. 85, Iss. 3, Page135-146, ISSN 1454-2331, WOS: 001052966300012, **Q4, IF 0,5**
- C119 Negrescu, AM; Mocanu, AC; **Miculescu, F**; Mitran, V; Constantinescu, AE; Cimpean, A; Ge, X, In Vitro Studies on 3D-Printed PLA/HA/GNP Structures for Bone Tissue Regeneration, Biomimetics, 2024, Vol. 9, Iss. 1, Art. No. 55, eISSN 2313-7673, DOI: 10.3390/biomimetics9010055, WOS: 001149426100001, **Q1, IF 3,4**
- C120 Ghita, AN; Slobozeanu, AE; Licu, L; Ciobota, CF; Sobetkii, A; Vasile, BS; **Miculescu, F**; Piticescu, RR, Hydrothermal synthesis of zirconia doped with naturally mixed rare earths oxides and their electrochemical properties for possible applications in solid oxide fuel cells, Manufacturing Review, 2024, Vol. 11, Art. No. 1, ISSN 2265-4224 DOI: 10.1051/mfreview/2023014, WOS: 001136509500001, **Q4, IF 2,5**
- C121 Mocanu, AC; Constantinescu, AE; Pandele, MA; Voicu, SI; Ciocoiu, RC, Batalu, D; Semenescu, A; **Miculescu, F**; Ciocan, LT; Biocompatible Composite Filaments Printable by Fused Deposition Modelling Technique: Selection of Tuning Parameters by Influence of Biogenic Hydroxyapatite and Graphene Nanoplatelets Ratios, Biomimetics, Vol. 9, Iss. 3, 2024. Art. No. 189, eISSN 2313-7673, DOI: 10.3390/biomimetics9030189, **Principal author, Q1, IF 3,4**
- C122 Popescu, F; Titorencu, I; Kaya, MA; **Miculescu, F**; Tutuiianu, R; Coman, AE; Danila, E; Marin, MM; Ancuta, DL; Coman, C; Barbilian, A, Development of Innovative Biocomposites with Collagen, Keratin and Hydroxyapatite for Bone Tissue Engineering, Biomimetics, Vol. 9, Iss. 7, 2024, Article Number 428, eISSN 2313-7673, DOI: 10.3390/biomimetics9070428, WOS: 001276680000001, **Q1, IF 3,4**
- C123 Mocanu AC, **Miculescu F\***, Dondea ES, Pandele MA, Voicu SI, Alina Dobre A, Stan GE, Ghebaur A, Ciocan LT, Induced antibacterial activity of printable composite materials: Influence of the conjoined modulation of ampicillin/hydroxyapatite/graphene nanoplatelets ratios, Ceramics International, Volume 51, Issue 4, Pages 5181 – 5198, 2025, ISSN 02728842, DOI 10.1016/j.ceramint.2024.11.492, WOS: 001415410100001, **Principal author, Q1, IF 5,1**
- C124 Popescu, F; **Miculescu, F**; Titorencu, I; Kaya, MA; Tudor, N; Biocompatibility and regenerative potential of collagen-keratin-hydroxyapatite scaffolds in a bilateral osteochondral defect rat model, University Politehnica of Bucharest Scientific Bulletin Series B-Chemistry and Materials Science, Vol. 87, Iss. 2, Page

- 175-186, 2025, ISSN 1454-2331, WOS: 001508448400013, **Q4, IF=0.3**
- C125 Vasilescu, VG; Ciocan, TL; Custura, AM; **Miculescu, F**; Stan, M; Voinea, IC; Dima, D; Bucur, FI; Dediu-Botezatu, AV; Neacsu, MI; Vasilescu, E; Imre, M; Biocompatible and Antibacterial Chemical Coatings on TiZr Dental Implants, *Journal of Functional Biomaterials*, Vol. 16, Iss. 3, 2025, eISSN 2079-4983, DOI: 10.3390/jfb16030112, WOS: 001453129300001, **Q1, IF=5.2**
- C126 Pantea, M; Ciocan, LT; Vasilescu, VG; Voicu, G; Nicoara, AI; **Miculescu, F**; Ciocoiu, R; Tâncu, AMC; Banu, EG; Imre, M; Effects of Different Surface Treatments and Accelerated Aging on Dental Zirconia-An In Vitro Study, *Journal of Functional Biomaterials*, Vol. 16, Iss. 7, 2025, eISSN 2079-4983, DOI: 10.3390/jfb16070263, WOS: 001535368100001, **Q1, IF=5.2**
- C127 Ilie, AA; Niculescu, F; Iacob, G; Pencea, I; **Miculescu, F**; Bololoi, R; Dragut, DV; Matei, AC; Ghita, M; Priceputu, A; Ungureanu, C, Microstructure and Properties of Bi-Sn, Bi-Sn-Sb, and Bi-Sn-Ag Solder Alloys for Electronic Applications, *Metals*, Vol. 15, Iss. 8, eISSN 2075-4701; DOI: 10.3390/met15080915, WOS: 001557978500001, **Q2, IF=2.5**
- C128 Laptou, SA; Miculescu, M; Enescu, D; Antoniac, I; **Miculescu, F**; Formation and Characterization of Ti-Al Intermetallic and Oxide Layers on Ti6Al4V as Interlayers for Hydroxyapatite Coatings, *Metals*, Vol. 15, Iss. 10, eISSN 2075-4701, DOI: 10.3390/met15101159, WOS: 001602004100001, **Q2, IF=2.5**
- C129 Ghica VG, **Miculescu F**, Vasile A, Saftere ND, Markopoulos AP\*, Karabulut S, Petrescu MI, Tanasa E, Icleanu A, Experimental Research on the Ecological Recovery of Metals from Used Ni-MH Batteries, *Materials*, Vol. 18, Iss. 5549, 2025, DOI: 10.3390/ma18245549, WOS: , **Q2, IF=3.2**

### WOS Clarivate Analytics Indexed articles

- C130 M.M. Sovar, E. Aldea, V. Mitran, **F. Miculescu**, I. Demetrescu, *Cell Growth on TiAlNb Alloy as a Function of Bioactivation Method*, Editors: Daculsi G; Layrolle P, *Bioceramics*, Vol. 20, Pts 1 And 2 Book Series: Key Engineering Materials, Vol. 361-363, Pag. 1131-1134, Part 1-2, WOS: 000253480200279, ISBN: 978-0-87849-344-9, ISSN: 1013-9826, 2008. Document Type: Proceedings Paper. Web of Science Categories: Materials Science, Multidisciplinary; Materials Science, Coatings & Films
- C131 E. Albert, M. Muntean, A. Ianculescu, **F. Miculescu**, B. Albert, *Special Ceramic Material Based on Basaltic-Andesite for Extreme Environments*, *Advanced Materials Research*, Vol.59, Pag. 39-41, WOS: 000265407900004, ISBN: 978-0-87849-344-9, ISSN: 1022-6680, 2009. Document Type: Proceedings Paper. Web of Science Categories: Materials Science, Multidisciplinary
- C132 B. Ghiban, I. Bordeasu, N. Ghiban, A. Semenescu, **F. Miculescu**, A. Ghiban, *Structural Features of Cavitation Damages in Some Stainless Steel*, *Annals of DAAAM Proceedings*, Vol. 20, Pag. 1561-1562, WOS: 000282335600781, ISBN: 978-3-901509-70-4, ISSN: 1726-9679, 2009. Document Type: Proceedings Paper. Web of Science Categories: Engineering, Manufacturing
- C133 R.M. Comăneanu, D.L. Ghergic, O. Smătrea, D. Vlăsceanu, **F. Miculescu**, M. Târcolea, *Microscopic (SEM, EDX) investigations on a new material/implant for dental use*, *Annals of DAAAM & Proceedings of the 20<sup>th</sup> International Symposium*, Vol. 20, Pag. 1597-1598, WOS: 000282335600799, ISBN: 978-3-901509-70-4, ISSN 1726-9679, 2009. Document Type: Proceedings Paper. Web of Science Categories: Engineering, Manufacturing
- C134 A. Ghiban, B. Ghiban, C.M. Bortun, N. Ghiban, F. Miculescu, P. Moldovan, *Intermetallic Phases in New CoCrMoTi Dental Alloy*, *MEDIMOND*, 24th European Conference on Biomaterials, Pag. 47-52, WOS: 000319162200009, ISBN: 978-88-7587-630-2, 2011. Document Type: Proceedings Paper. Web of Science Categories: Engineering, Biomedical; Materials Science, Biomaterials
- C135 M. Branzei, I. Plotog, **F. Miculescu**, G. Varzaru, P. Svasta, A. Thumm, *Solder Joints Properties as Function of Multiple Reflow Vapor Phase Soldering Process*, *Proceedings of the International Spring Seminar on Electronics Technology*, Art.No. 6273127, Pag. 155-160; DOI: 10.1109/ISSE.2012.6273127, WOS: 000374111700030, ISSN 21612528, ISBN: 9781467322409, 2012. Document Type: Conference Paper, Research Areas: Engineering
- C136 **F. Miculescu**, L.T. Ciocan, M. Miculescu, A. Ernuteanu, I.V. Antoniac, E. Matei, I. Pencea, *A Study on Trace Elements Concentration in Bone Particles by XRF Analysis*, *Diffusion and Defect Data Pt.B: Solid State Phenomena*, Vol. 188, Pag. 37-40, DOI: 10.4028/www.scientific.net/SSP.188.37, WOS: 000308047400007, ISSN: 1012-0394 ISBN: 9783037853917, 2012. Document Type: Proceedings Paper, Web of Science Categories: Materials Science, Multidisciplinary. **Principal author**
- C137 M. Bane, **F. Miculescu**, A.I. Blajan, M. Dinu, I.V. Antoniac, *Failure Analysis of Some Retrieved Orthopedic Implants Based on Materials Characterization*, *Diffusion and Defect Data Pt.B: Solid State Phenomena*, Vol.188, Pag. 114-177, Document Type: Proceedings Paper. DOI: 10.4028/www.scientific.net/SSP. 188.114, WOS: 000308047400021, ISSN: 1012-0394, ISBN: 9783037853917, 2012. Web of Science Categories:

Materials Science, Multidisciplinary

- C138 M. Branzei, **F. Miculescu**, A. Bibis, I. Cristea, I. Plotog, G. Varzaru, B. Mihailescu, *Lead/Lead Free Solder Joints Comparative Electrical Tests as Function of Microstructure and Soldering Thermal Profile*, 2013 IEEE 19TH International Symposium for Design and Technology in Electronic Packaging (SIITME), Pag. 255-258, WOS: 000347562900045, ISBN:978-1-4799-1555-2, 2013. Document Type: Proceedings Paper, Web of Science Categories: Engineering, Electrical & Electronic
- C139 M. Branzei, I. Pencea, I. Plotog, **F. Miculescu**, I. Cristea, A. Thumm, *The Mischmetal and Bi94Zn6 Effect Alloying on SACX 0307*, Proceedings of the 36th International Spring Seminar on Electronics Technology (ISSE), Book Series: International Spring Seminar on Electronics Technology ISSE, Pag. 24-29, WOS: 000374113900005, ISBN:978-1-4799-0036-7, ISSN: 2161-2528, 2013. Web of Science Categories: Engineering, Electrical & Electronic, Document Type: Proceedings Paper
- C140 **F. Miculescu**, L.T. Ciocan, M. Miculescu, D. Meghea, M. Bane, M. Brânzei, *Implant Surface Finishing Influence on Tissue-Implant Anchoring*, Vol. 216, Pag. 39-44, 5th International Conference on Advanced Materials and Structures, AMS 2013; Timisoara, Solid State Phenomena Code 107496, Source Type: Book series, DOI: 10.4028/www.scientific.net/SSP.216.39, WOS: 000347924100007, ISSN: 10120394 ISBN: 978-303835212-9, 2014. Document Type: Conference Paper. **Principal author**
- C141 M. Miculescu, M. Branzei, **F. Miculescu**, D. Meghea, M. Bane, *A Study on Metal-Ceramic Thermal Expansion Compatibility*, Solid State Phenomena, Vol. 216, Pag. 85-90, 5th International Conference on Advanced Materials and Structures, AMS 2013; Timisoara; Code 107496, Source Type: Book series, DOI: 10.4028/www.scientific.net/SSP.216.85, WOS: 000347924100015, ISSN: 10120394 ISBN: 978-303835212-9 CODEN: DDBPE, 2014. Document Type: Conference Paper, Research Areas: Materials Science.
- C142 M. Miculescu, R. Vlăsceanu, F. Baci, **F. Miculescu**, *Study on The Metal-Ceramic Bonding Strength Improvement by Unconventional Methods*, UPB Scientific Bulletin, Series B: Chemistry and Materials Science, Volume 78, Issue 1, Pag. 193-200, WOS: 000417051900019, ISSN: 14542331, CODEN: SBPSF, Indexed SCOPUS, 2016. Document Type: Article, Research Areas: Chemistry
- C143 A Maidaniuc, **F. Miculescu**, A.C. Mocanu, S.I. Voicu, M. Miculescu, A. Purcaru, A. Muhuleț, C. Pop, M.E. Rada, *Sinterability Study of Bovine-Derived Hydroxyapatite and Silver Microcomposites*, UPB Scientific Bulletin, Series B: Chemistry and Materials Science, Vol. 79, Iss. 1, Pag. 145-154, WOS: 000405772200015, ISSN:1454-2331, Web of Science Categories: Materials Science, 2017. Document Type: Article, Research Areas: Chemistry. **Principal author**
- C144 C. Luta, M. Soare, A.C. Mocanu, A. Maidaniuc, A.E. Eanu, **F. Miculescu**, *Comprehensive Nondestructive Testing of Implants for Orthopedic Applications*, University Politehnica of Bucharest Scientific Bulletin Series B-Chemistry and Materials Science, Volume: 80, Issue: 3, Pages: 159-174, WOS: 000440890800014, ISSN: 1454-2331, 2018. Document Type: Article, Research Areas: Chemistry. **Principal author**
- C145 C.A. Manea, I. Csaki, L.E. Geambazu, **F. Miculescu**, M.I. Petrescu, F. Fanicchia, M. Sohaciu, L. Rosu, *HfNbTaTiZr High Entropy Alloy Processed by Mechanical Alloying*, University Politehnica of Bucharest Scientific Bulletin Series B-Chemistry and Materials Science, Vol. 81, Iss. 3, Pag. 201-208, WOS: 000487215400020, ISSN: 1454-2331, 2019. Document Type: Article, Research Areas: Chemistry
- C146 **F. Miculescu**, C. Luta, AE. Constantinescu, A. Maidaniuc, AC.Mocanu, M. Miculescu, SI. Voicu, LT. Ciocan, *Considerations and Influencing Parameters in EDS Microanalysis of Biogenic Hydroxyapatite*, Journal of Functional Biomaterials, Volume: 11 Issue: 4, Article Number: 82, DOI: 10.3390/jfb11040082, WOS: 000601502900001, PubMed ID: 33203117, eISSN: 2079-4983, 2020. Document Type: Article, Web of Science Categories: Materials Science, Biomaterials. **Principal author**
- C147 R.E. Ginghină, D. Bojin, **F. Miculescu**, P. Zamora lordache, T.V. Țigănescu, Antoniac, I., *The pH influence in the process of industrial wastewater treatment*, UPB Scientific Bulletin, Series B: Chemistry and Materials Science, Volume 82, Issue 4, Pages 355-365, WOS: 000610101300029, ISSN: 1454-2331, 2020. Document Type: Article, Research Areas: Chemistry
- C148 LE. Geambazu, R. Ciocoiu, **F. Miculescu**, I. Csaki, I. Coatings of CoxCrFeMoNi high entropy alloy produced by electro spark deposition technique, University Politehnica of Bucharest Scientific Bulletin Series B-Chemistry and Materials Science, Volume 83, Issue: 1, Pages: 165-174, WOS: 000627764100015, ISSN: 1454-2331, 2021. Document Type: Article, Research Areas: Chemistry
- C149 AC. Mocanu, **F. Miculescu**, GE. Stan, RC. Ciocoiu, MC. Corobea, M. Miculescu, LT. Ciocan, *Preliminary Studies on Graphene-Reinforced 3D Products Obtained by the One-Stage Sacrificial Template Method for Bone Reconstruction Applications*, Journal of Functional Biomaterials, Volume: 12, Issue: 1, Article Number: 13, DOI: 10.3390/jfb12010013, WOS: 000633127900001, PubMed ID: 33673093, eISSN: 2079-4983, 2021. Document Type: Article, Web of Science Categories: Materials Science, Biomaterials
- C150 RV. Bololoi, M. Sohaciu, VS. Serban-Tanase, **F. Miculescu**, I. Csaki, *AlCrFeNiTi high entropy alloy produced by solid state processing*, University Politehnica of Bucharest Scientific Bulletin Series B-Chemistry and Materials Science, Volume 83, Issue 3, Page 265-274, WOS: 000692192600022, ISSN1454-2331, 2021.

**Internationally recognized journals (indexed in other International Databases)**

- C1.1. C. Ittu, N. Constantin, **F. Miculescu**, P. Ene, P. Aioanei, M. Munteanu, *Covering Powder for Continuous Casting Steel, Modeling Of Casting, Welding and Advanced Solidification Processes – XI*, Vol. 2, 2006, Pag. 1147-1154, Modeling of Casting, Welding and Advanced Solidification Processes - XI; Opio; France; Code 68706, ISBN: 0873396294; 978-087339629-5. Document Type: Conference Paper, Indexed SCOPUS, 2006
- C1.2. G. Popescu, P. Moldovan, S. Bejan, M. Miculescu, **F. Miculescu**, *Thermophysical Properties and Microstructural Analysis of AZ80 Magnesium Alloys Designed for Automotive Industry*, Materials Science and Technology Conference and Exhibition, MS and T'08, Vol. 2, Pag. 1222-1229, Proceeding. Materials Science and Technology Conference and Exhibition, MS and T'08; Pittsburgh, PA; United States; Code 75829. ISBN: 9781605606217, Document Type: Conference Paper, Indexed SCOPUS, 2008
- C1.3. M. Miculescu, G. Coşmeleată, M. Brânzei, **F. Miculescu**, *Thermal Diffusivity of Materials Using Flash Method Applied on CoCr Alloys*, UPB Scientific Bulletin, Series B: Chemistry and Materials Science, Vol. 70, Iss. 2, 2008, Pages 71-80, ISSN: 14542331, CODEN: SBPSF, Document Type: Article, Indexed SCOPUS, 2008
- C1.4. M. Branzei, P. Svasta, **F. Miculescu**, M. Miculescu, I. Plotog, *Correlation Between the Thermophysical Properties, Geometry and Microstructure of the SAC305 and SAC-X Typical Solder Joints*, SIITME 2009 - 15th International Symposium for Design and Technology of Electronics Packages, Gyula; Hungary, Art.No. 5407386, Pag. 129-133, Category number CFP0907I-CDR; Code 79485, DOI: 10.1109/SIITME.2009.5407386, ISBN: 9781424451333, Document Type: Conference Paper, Indexed SCOPUS, 2009
- C1.5. I. Demetrescu, D. Ionita, C. Pirvu, D. Portan, C. Manole, **F. Miculescu**, A. Cimpan, *Aspects of Correlation Between Structures, Properties and Bioapplications of TiO<sub>2</sub> Nanotubes*, 2009, 3rd ICTON Mediterranean Winter Conference, ICTON-MW 2009, Art.No. 5385642, Angers; France; Category number CFP0933D-USB; Code 79652, DOI: 10.1109/ICTONMW.2009.5385642, ISBN: 978-142445746-5, Document Type: Conference Paper, Indexed SCOPUS, 2009
- C1.6. I. Plotog, P. Svasta, J. Villain, Z. Illyefalvi-Vitez, A. Pietrikova., M. Branzei, **F. Miculescu**, D. Constantinescu, C. Balan, T. Cucu, G. Varzaru, *HISOLD 4P Q&R, COST Project for Solder Material Innovations and Solder Joint Properties Assessment*, SIITME 2009 - 15th International Symposium for Design and Technology of Electronics Packages, Art.No. 5407395, Pag. 87-92, Gyula; Hungary; Category number CFP0907I-CDR; Code 79485, DOI: 10.1109/SIITME.2009.5407395, ISBN: 9781424451333, Document Type: Conference Paper, Indexed SCOPUS, 2009
- C1.7. E. Mircea, C. Zaharia, C. Cincu, **F. Miculescu**, G. Hubcă, C.N. Degeratu, *Natural Fibers Modified by Chemical Methods for Application in Bone Pathology*, UPB Scientific Bulletin, Series B: Chemistry and Materials Science, Vol. 72, Iss. 4, pag. 155-172, CODEN: SBPSF, ISSN 1454-2331, Document Type: Article, Indexed SCOPUS, 2010
- C1.8. A. Bechir, R.M. Comaneanu, O. Smatrea, D.L. Ghergic, M. Tarcolea, **F. Miculescu**, *Microscopic Studies Regarding the Causes of Micro-Fractures in an Aesthetic Dental Bridge*, International Journal of Nano and Biomaterials, Vol. 3, ISS. 4, Pag. 382-391, DOI: 10.1504/IJNB.2011.045887, ISSN: 17528933, Document Type: Article, Indexed SCOPUS, 2011
- C1.9. C. Zaharia, T. Zecheru, L. Lerescu, M.R. Tudora, **F. Miculescu**, C. Cincu, *Triiodophenyl Acrylate-Based Microbeads Find Important Use in the Medical Field*, International Journal of Nano and Biomaterials, Vol. 3, ISS. 4, Pag. 302-315, DOI: 10.1504/IJNB.2011.045888, ISSN: 1752-8933, Document Type: Article, Indexed SCOPUS, 2011
- C1.10. **F. Miculescu**, I.V. Antoniac, L.T. Ciocan, M. Miculescu, M. Branzei, A. Ernuteanu, D. Batalu, A. Berbecaru, *Complex Analysis on Heat Treated Human Compact Bones*, UPB Scientific Bulletin, Series B: Chemistry and Materials Science, Vol. 73, Iss. 4, Pag. 203-212, ISSN 1454-2331, Document Type: Article, Indexed SCOPUS, 2011. **Principal author**
- C1.11. I. Plotog, T. Cucu, B. Mihailescu, P. Svasta, M. Branzei, M. Tarcolea, **F. Miculescu**, A. Thumm., A. Flechtmann, *Solder Joints Properties Assessment in the Terms of 4P Soldering Model*, 2011 IEEE 17th International Symposium for Design and Technology of Electronics Packages, SIITME 2011, Art.No. 6102710, Pag. 163-168, Timisoara; Romania; 2011; Category number CFP1107I-USB; Code 88067, DOI: 10.1109/SIITME.2011.6102710, ISBN 9781457712753, Document Type: Conference Paper, Indexed SCOPUS, 2011
- C1.12. G. Iacob, G. Popescu, **F. Miculescu**, M. Buzatu, *Obtaining and Characterization of Al/Al<sub>2</sub>O<sub>3</sub>/Gr Composites by Mechanical Alloying*, UPB Scientific Bulletin, Series B: Chemistry and Materials Science, Vol.74, Iss. 2, Pag. 221-230, CODEN: SBPSF, ISSN: 1454-2331, Document Type: Article, Indexed SCOPUS, 2012
- C1.13. M.D. Vranceanu, R. Saban, I.V. Antoniac, M. Albu, **F. Miculescu**, *Development and Characterization of Novel Porous Collagen Based Biocomposite for Bone Tissue Regeneration*, UPB Scientific Bulletin, Series B:

- Chemistry and Materials Science, Vol. 74, Iss. 3, Pag. 145-156, CODEN: SBPSF, ISSN: 1454-2331, Document Type: Article. Indexed SCOPUS, 2012
- C1.14. M. Mânzână, B. Ghiban, M. Marin, N. Ghiban, I. Bordeasă, S. Mitrea, **F. Miculescu**, *Concerning the Damage of Stainless Steels by Cavitation Erosion*, UPB Scientific Bulletin, Series B: Chemistry and Materials Science, Volume 74, Issue 4, 2012, Pages 223-236, ISSN: 14542331, CODEN: SBPSF, Document Type: Article, Indexed SCOPUS, 2012
- C1.15. **F. Miculescu**, L.T. Ciocan, D. Meghea, M. Miculescu, *Morphologic Characterization of Ceramic-Ceramic Dental Systems Failure*, Key Engineering Materials, Vol. 614, Pag. 140-143, 25th Symposium and Annual Meeting of the International Society for Ceramics in Medicine, ISCM 2013; Bucharest, Source Type: Book series, DOI: 10.4028/www.scientific.net/ KEM.614.140, Document Type: Conference Paper, ISSN: 10139826 ISBN: 978-303835128-3, CODEN: KEMAE, Indexed SCOPUS, 2014. **Principal author**
- C1.16. A. Blajan, **F. Miculescu**, I. Ciuca, C. Cotrut, A. Semenescu, I.V. Antoniac, *Effect of Calcium Content on the Microstructure and Degradation of Mg-Ca Binary Alloys Potentially Used as Orthopedic Biomaterials*, Key Engineering Materials, Vol. 638, 2014, Pages 104-108, CODEN: KEMAE, Code 118479, DOI: 10.4028/www.scientific.net/KEM.638.104, ISSN: 10139826 ISBN: 978-303835432-1, Document Type: Conference Paper, Indexed SCOPUS, 2014
- C1.17. **F. Miculescu**, L.T. Ciocan, M. Miculescu, A. Mocanu, A. Maidaniuc, A. Purcaru, O. Preda, *Micro-Analytical Comparison on Elemental Composition of Nonstoichiometric Bovine Bone Derived Hydroxyapatite*, Key Engineering Materials, Vol. 638, 2014, Pag. 3-7, DOI: 10.4028/www.scientific.net/KEM.638.3, ISSN: 10139826 ISBN: 978-303835432-1, Document Type: Conference Paper, Indexed SCOPUS, 2014. **Principal author**
- C1.18. **F. Miculescu**, L.T. Ciocan, M. Miculescu, I.V. Antoniac, A. Purcaru, O. Preda, A. Maidaniuc, *Cooling Conditions Influence on Cortical Bovine Bones Derived Hydroxyapatite*, Key Engineering Materials, Vol. 638, 2014, Pag. 111-116, DOI: 10.4028/www.scientific.net/KEM.638.111, ISSN: 10139826 ISBN: 978-303835432-1.x, Document Type: Conference Paper, Indexed SCOPUS, 2014
- C1.19. M. Miculescu, M. Bane, **F. Miculescu**, O. Preda, I. Plotog, *Dental Plating Efficiency of Metal Base Dental Alloys by Thermal Diffusivity Study*, Key Engineering Materials, Vol. 638, 2014, Pag. 141-144, DOI: 10.4028/www.scientific.net/KEM.638.141, ISSN: 10139826 ISBN: 978-303835432-1, Document Type: Conference Paper, Indexed SCOPUS, 2014
- C1.20. M. Miculescu, M. Bane, **F. Miculescu**, L.T. Ciocan, O. Preda, I.V. Antoniac, *A Study on Metal-Ceramic Interface on Metal Base Dental Alloys*, Key Engineering Materials, Vol. 638, 2014, Pag. 14-19, DOI: 10.4028/www.scientific.net/ KEM.638.14, ISSN: 10139826 ISBN: 978-303835432-1, Document Type: Conference Paper, Indexed SCOPUS, 2014
- C1.21. S.I. Voicu, A. Muhulet, M. Miculescu, **F. Miculescu**, S. Vizireanu, *Polysulfone Membrane Reactors for Derivatization of Carbon Nanotubes*, Advanced Materials - TechConnect Briefs 2016, Vol. 1, 2016, Pages 300-303, 10th Annual TechConnect World Innovation Conference and Expo, Held Jointly with the 19th Annual Nanotech Conference and Expo, and the 2016 National SBIR/STTR Conference; Washington; United States; Code 122946, ISBN: 978-099751170-3, Document Type: Conference Paper, Indexed SCOPUS, 2016
- C1.22. **F. Miculescu**, A. Maidaniuc, S.I. Voicu, M. Miculescu, D. Batalu, *Strategies for Production of Naturally-Derived Calcium Phosphates Particles*, Advanced Materials - TechConnect Briefs 2016, Vol. 3, 2016, Pages 31-34, 10th Annual TechConnect World Innovation Conference and Expo, Held Jointly with the 19th Annual Nanotech Conference and Expo, and the 2016 National SBIR/STTR Conference; Washington; United States; Code 122946, ISBN: 978-099751172-7, Document Type: Conference Paper, Indexed SCOPUS, 2016 **Principal author**
- C1.23. L.E. Geambazu, C.A. Manea, I. Csaki, **F. Miculescu**, *Al0.5CrCoFeNi High Entropy Alloy for Geothermal Environment*, ISSN: 17578981, IOP Conference Series: Materials Science and Engineering, Vol. 572, Iss. 1, Art.No. 012073, 2019 International Conference on Innovative Research, ICIR EUROINVENT 2019; Iasi; Romania; Code 150123, DOI: 10.1088/1757-899X/572/1/012073, Document Type: Conference Paper, Indexed SCOPUS, 2019
- C1.24. I. Csáki, S.N. Karlsdottir, R. Stefanoiu, L.E. Geambazu, **F. Miculescu**, A.I. Thorlaksson, A.V. Motoiu, *Mechanically Alloyed CoCrFeNiMo High Entropy Alloy Behavior In Geothermal Steam*, NACE - International Corrosion Conference Series, Vol. 2019-March, Art.No. 13239, Corrosion Conference and Expo 2019; Nashville; United States; 24 March 2019 through 28 March 2019; Code 149623, ISSN: 03614409, Document Type: Conference Paper, Indexed SCOPUS, 2019
- C1.25. C.A. Manea, L.E. Geambazu, R.V. Bololoi, Mates, **F. Miculescu**, M.G. Sohaciu, I. Csaki, *Microstructure characterization of HfNbTaTiZr High Entropy Alloy Processed in Solid State*, IOP Conference Series: Materials Science and Engineering, Volume 916, Issue 1, 10 September 2020, Article number 012061, 8th International Conference on Modern Technologies in Industrial Engineering, ModTech 2020; Constanta; Romania; 24 June 2020 through 27 June 2020; Code 162965, ISSN: 1757-8981, Conference Proceeding, DOI: 10.1088/1757-

899X/916/1/012061, WOS:000625330000061, 2020

- C1.26. F. Popescu , M.G. Albu Kaya , F. Miculescu , A.E. Coman Jr., D.L. Ancuta , C. Coman , A. Barbilian, Novel Collagenous Sponge Composites for Osteochondral Regeneration in Rat Knee Models: A Comparative Study of Keratin, Hydroxyapatite, and Combined Treatments, *Cureus* 16(11): e73428. DOI 10.7759/cureus.73428, 2024

#### Works published over the past twenty years in journals and conference volumes with referees (not indexed) (D)

D – Conference papers, etc.

- D1. O. Trante, D. Bunea, I.V. Antoniac, **F. Miculescu**, *Cercetări Privind Prelucrarea Plastică și Tratamentul Termic al Sârmelor din Oțel Inoxidabil Austenitic cu Destinație Medicală*, Volum lucrări Conferința Națională “Tradiții și perspective în școala românească de metalurgie – TPSRM – Bucharest 1998” pag. 398-403, 1998
- D2. I.V. Antoniac, **F. Miculescu**, M. Miculescu, *Influența Tratamentelor Termice Asupra Proprietăților unui Oțel Inoxidabil Austenitic Utilizat ca Biomaterial*, Volum lucrări Conferința Națională “Tradiții și perspective în școala românească de metalurgie – TPSRM 2000 – Bucharest 2000”, ISBN 973-652-222-9, 2000
- D3. D. Lăptoiu, I.V. Antoniac, **F. Miculescu**, M. Brânzei, D. Gheorghe, *Model de Eșec în Protezele de Genunchi Tip Plat/Plat*, Volum lucrări Simpozionul Național cu Participare Internațională “BIOMATERIALE – prezent și perspective” Bucharest, ISBN 973-652-808-3, 2002
- D4. D. Bojin, **F. Miculescu**, B. Fresz, J.R. Groza, *Copper Electrodes for rsw of Aluminium*, p.371, Conferinta Nationala Tehnologii si Materiale Avansate, Galati, 20 - 22 Noiembrie 2003
- D5. I. Pătrașcu, B. Gălbinașu, L.T. Ciocan, A. Bojin, **F. Miculescu**, *Analiza ESEM a Interfeței Materialelor Restaurative Odontale*, Simpozionul National de Biomateriale, Galati, ISBN 973-627-067-X, 2003
- D6. **F. Miculescu**, D. Bunea, V. Antoniac, L.T Ciocan, B. Galbinașu, *Distribuția Chimică Elementală la Interfața Implantelor Metalice Osteointegrate*, Simpozionul National de Biomateriale, 20-22 Noiembrie 2003, Galati, ISBN 973-627-067-X
- D7. **F. Miculescu**, D. Bunea, V. Antoniac, L.T Ciocan, M. Miculescu, *Cercetări Experimentale prin Microscopie Electronică de Baleiaj Privind Osteointegrarea Intramedulară a Biomaterialelor Metalice*, Simpozionul National de Biomateriale, Galati, ISBN 973-627-067-X, 2003
- D8. D. Lăptoiu, I.V. Antoniac, **F. Miculescu**, A. Constantin, *Studii si cercetari privind uzura componentei de polietilena a endoprotezelor de genunchi*, Simpozionul National de Biomateriale, Galati, ISBN 973-627-067-X, 2003
- D9. R. Cristescu, L.T. Ciocan, I. Patrascu, **F. Miculescu**, M. Miculescu, *Studiu de Microscopie Electronica Privind Adeziunea Sigilantilor Endodontici la Peretii Canalelor Radiculare*, 9th International Symposium “The Stomatological Days in Banat”, Timisoara, Timisoara Medical Journal, Vol. 54, Supp. 2, pag. 34, ISSN 1583-5251, 2003
- D10. I.V. Antoniac, D. Lăptoiu, M. Miculescu, V. Bunea, **F. Miculescu**, *Retrieval analysis of some cementless HA-coated smooth surface acetabular implants*, European Cells and Materials, Vol. 5, Iss. SUPPL. 1, Pag. 51-52, Source Type: Journal. Document Type: Conference Paper. Indexed SCOPUS. ISSN: 14732262
- D11. D. Bunea, D. Bojin, S. Zamfir, **F. Miculescu**, M. Miculescu, *Experimental researches concerning the Co-Cr-Mo alloys used in implantology*, European Cells and Materials, Vol. 5, Iss. SUPPL. 1, Pag. 53-54, Source Type: Journal. Document Type: Conference Paper. Indexed SCOPUS. ISSN: 14732262, 2003
- D12. D. Bunea, **F. Miculescu**, L.T. Ciocan, I. Patrașcu, H. Elefterescu, *A Study on Ti Implants Regarding Ostointegration Processes Development*, The Proceeding of International Conference “Biomaterials and Medical Devices – Biommedd 2004”, Bucuerști, ISBN 973-718-083-6, 2004
- D13. L.T. Ciocan, D. Bunea, D. Bojin, I.V. Antoniac, **F. Miculescu**, M. Miculescu, *Mapping Type EDAX Analyze Use to Interpret Metallic Implant – Biological Environment Interaction*, The Proceeding of International Conference “Biomaterials and Medical Devices – Biommedd 2004”, Bucuerști, ISBN 973-718-083-6, 2004
- D14. G.A. Stanciu, C. Dan, **F. Miculescu**, D. Bunea. K.M. Paraskevopoulos, P. Koidis, *Analysis of the Hydroxyapatite Formation Grown on the Bioactive Glass by Confocal Laser Scanning Laser Microscopy, Environmental Scanning Electron Microscopy and Energy Dispersive X-ray Analysis*, The Proceeding of International Conference “Biomaterials and Medical Devices – Biommedd 2004”, Bucuerști, ISBN 973-718-083-6, 2004
- D15. I.V. Antoniac, D. Lăptoiu, D. Bunea, M. Sajin, **F. Miculescu**, C. Lacatusu, *Retrieval Analysis of the Polyethylene Component in a Total Knee Implant*, The Proceeding of International Conference “Biomaterials and Medical Devices – Biommedd 2004”, Bucuerști, ISBN 973-718-083-6, 2004
- D16. A. Firica, S. Malincenco, D. Lăptoiu, I.V. Antoniac, **F. Miculescu**, *Metal on Metal Hip Resurfacing Arthroplasty–Design and Advantages*, The Proceeding of International Conference “Biomaterials and Medical Devices – Biommedd 2004”, Bucharest, ISBN 973-718-083-6, 2004
- D17. D. Lăptoiu, **F. Miculescu**, S. Malincenco, C. Lăcătușu, A. Constantin, D. Robu, *Surface Analysis of Knee*

- Articular Cartilage by Environmental Scanning Electron Microscopy*, The Proceeding of International Conference "Biomaterials and Medical Devices – Biommedd 2004", Bucuerști, ISBN 973-718-083-6, 2004
- D18. F. Purghel, D. Bunea, L. Purghel, S. Ivanescu, I.V. Antoniac, R. Badea, M. Nedea, A. Anastasiu, **F. Miculescu**, R. Iacobescu, *Structure of Biomaterials on the Loosening of Total Hip Prostheses*, The Proceeding of International Conference "Biomaterials and Medical Devices – Biommedd 2004", Bucuerști, ISBN 973-718-083-6, 2004
- D19. I. Pătrașcu, R.C. Cristescu, L.T. Ciocan, **F. Miculescu**, M. Miculescu, *ESEM Study on the Provisional Coronal Restoration of Endodontically Treated Teeth*, The Proceeding of International Conference "Biomaterials and Medical Devices – Biommedd 2004", Bucuerști, ISBN 973-718-083-6, 2004
- D20. R.C. Cristescu, L.T. Ciocan, **F. Miculescu**, M. Miculescu, *Studiu de Microscopie Electronica Privind Sigilarea Canalelor Radiculare*, Congresul National de Medicină Dentară pentru studenti si tineri medici, Bucharest, 2004
- D21. **F. Miculescu**, D. Bojin, I.V. Antoniac, M. Miculescu, *Studies of Metallic Biomaterials Cytotoxicity*, Al V-lea Simpozion Național de Biomateriale – "Biomateriale și Aplicații Medico-Chirurgicale", Iași, ISBN 973-627-237-0, 2005
- D22. **F. Miculescu**, I.V. Antoniac, M. Miculescu, L.T. Ciocan, *Influence of the Implants Surface Preparation on the Bone Ingrowth*, Al V-lea Simpozion Național de Biomateriale – "Biomateriale și Aplicații Medico-Chirurgicale", Iași, 28-29 Octombrie 2005, ISBN 973-627-237-0, 2005
- D23. M. Miculescu, M. Brânzei, D. Gheorghe, **F. Miculescu**, *Experimental Researche Concerning Diffusivity Measurement Parameters Assessment on Some Alloys Used in Implantology*, Al V-lea Simpozion Național de Biomateriale – "Biomateriale și Aplicații Medico-Chirurgicale", Iași, 28-29 Octombrie 2005, ISBN 973-627-237-0, 2005
- D24. N. Dumitru, D. Bunea, I. Patrascu, L.T. Ciocan, **F. Miculescu**, *Chemical Composition and Surface Preparation Level Influence On Metallic Implants Biointegrability*, Journées Scientifiques du CFBD, 10-11 juin 2004, Neuchâtel, l'Espace Perrier de Marin-Epanier, Suisse, vol.9, 2005
- D25. **F. Miculescu**, D. Bunea, L.T. Ciocan, M. Miculescu, I.V. Antoniac, *Experimental Researches Concerning Metabolic Chemical Phenomenon at the Bone Tissue-Metallic Implant Interface*, Journées Scientifiques du CFBD, 10-11 juin 2004, Neuchâtel, l'Espace Perrier de Marin-Epanier, Suisse, Vol.9, 2005
- D26. **F. Miculescu**, D. Bunea, M. Miculescu, D. Bojin, *In Vitro Studies Regarding Some Metallic Biomaterials Cytotoxicity*, Conferința Internațională ESB 2005, Sorrento, Italia 2005.
- D27. **F. Miculescu**, M. Miculescu, D. Bunea, G. Stanciu, *Researche Regarding Metallic Biomaterials Samples Surface Preparation*, Conferința Internațională ESB 2005, Sorrento, Italia 2005
- D28. I.V. Antoniac, D. Laptoiu, **F. Miculescu**, A. Dumitras, *The Wear Mechanism Analysis of the Polyethylene Component in Failed Total Knee Arthroplasty*, 19th Conference on Biomaterials ESB 2005, Sorento, Italia, 2005
- D29. I.V. Antoniac, D. Laptoiu, D. Gheorghe, **F. Miculescu**, P. Antoniac, *The Failure of Total Knee Prosthesis: Retrieval and Biomechanical Analysis*, Proceeding of the XV Conference on Biomaterials in Medicine and Veterinary Medicine, Rytro, Poland, 2005
- D30. I.V. Antoniac, D. Laptoiu, **F. Miculescu**, D. Bunea, *Wear Behaviour in Acetabular Metal-on-Metal Components – Retrieval Analysis*, Proceedings of the 18<sup>th</sup> International Congress of Mechanical Engineering COBEM, Ouro Preto, Brasil, 2005
- D31. C. Ittu, N. Constantin, **F. Miculescu**, M. Munteanu, P. Aioanei, C. Rizescu, *Pulbere Oxidica Utilizata ca Material de Acoperire a Otelului Lichid în Oala de Turnare*; Al IV-lea Simpozion cu participare internationala "Mecatronica, microtehnologii si materiale noi", Targoviste, 2006
- D32. **F. Miculescu**, I.V. Antoniac, L.T. Ciocan, M. Miculescu, D. Bojin, N. Miculescu, *Researche Regarding the Influence of the Implant Materials Topography on the Osteo-Integration Time*; 20th European conference on biomaterials, Nantes, France, 2006
- D33. I.V. Antoniac, D. Laptoiu, **F. Miculescu**, M. Magureanu, *Analysis of a Retrieved BHR Metal on Metal Hip Prosthesis*, 20th European conference on biomaterials, Nantes, France, 2006
- D34. M. Miculescu, M. Branzei, D. Gheorghe, **F. Miculescu**, N. Miculescu, *Researche Regarding Metallic Biomaterials Microstructural Characterization*, 20th European conference on biomaterials, Nantes, France, 2006
- D35. L.T. Ciocan, **F. Miculescu**, M. Miculescu, I. Patrascu, *Retrieval Analysis on Ti Dental Implants Using ESEM Method*; 20th European conference on biomaterials, Nantes, France, 2006
- D36. G.A. Stanciu, I. Sandulescu, B. Savu, D. Bojin, **F. Miculescu**, X. Chatzistavrou, E. Kontonasaki, P. Koidis, K.M. Paraskevopoulos, *Surface Roughness and Thickness of Hidroxyapatite Layer Grown on Bioactive Glass Investigated by Confocal Laser Scanning Microscopy and Scanning Electron Microscopy*, International Conference on Biomaterials & Medical Devices "Biommedd2006
- D37. S. Ciuca, M. Tarcolea, **F. Miculescu**, I. Gherghescu, A. Carrado, J. Werckmann, J. Fearber, G. Socol, S.

- Grigorescu, E. Gyorgy, I.N. Mihailescu, *Microstructural Analysis of Calcium Phosphates Biocompatible Films Growth by Pulsed Laser Deposition and Sol-Gel Techniques*, International Conference on Biomaterials & Medical Devices "Biommedd2006
- D38. G. Cosmeleata, **F. Miculescu**, I. Savulescu-Fiedler, S. Stanilescu, I. Ciuca, I.I. Bruckner, *The Usefulness of Electronic Microscopy for Evaluation of Vascular Endothelial Changes in Patients with Endothelial Dysfunction*, International Conference on Biomaterials & Medical Devices "Biommedd2006
- D39. I.V. Antoniac, D. Laptoiu, R. Marinescu, **F. Miculescu**, P. Antoniac, *Experimental Research Comparison Between Mixing and Cementing Techniques Involved in the Clinical Application of Different Commercial Bone Cements*, International Conference on Biomaterials & Medical Devices "Biommedd2006
- D40. **F. Miculescu**, D. Bojin, I.V. Antoniac, L.T. Ciocan, N.Miculescu, *Studiul Interfeței Țesut-Implant Dentar Metalic cu Ajutorul Microscopiei Electronice de Baleiaj*, Volumul de lucrări al Simpozionului Național de Biomateriale „Biomateriale și Aplicații Medico-Chirurgicale” ediția a VI-a, Cluj-Napoca, 2007
- D41. M. Miculescu, G. Coșmeleață, I.V. Antoniac, **F. Miculescu**, M. Târcolea, *Studii Privind Compatibilitatea Metalo-Ceramică din Punct de Vedere Termic în Implanturile Dentare*, Volumul de lucrări al Simpozionului Național de Biomateriale „Biomateriale și Aplicații Medico-Chirurgicale” ediția a VI-a, Cluj-Napoca, 2007
- D42. P. Antoniac, M. Sajin, A. Chefani, **F. Miculescu**, G. Pariza, M. Ciurea, *Studii Experimentale Privind Biofuncționalitatea Structurilor Biodegradabile Utilizate la Execuția Plaselor herniare*, Volumul de lucrări al Simpozionului Național de Biomateriale „Biomateriale și Aplicații Medico-Chirurgicale” ediția a VI-a, Cluj-Napoca, 2007
- D43. E. Albert, M. Muntean, A. Ianculescu, **F. Miculescu**, B. Albert, E. Fazakas, *Microstructure and Properties Correlation in a Basaltic Andesite Ceramic Composite*; 8<sup>th</sup> International Balcan Workshop on Applied Physics, Constanta, Romania, 2007
- D44. M.Brânzei, M.Miculescu, D.Gheorghe, **F. Miculescu**, *A Proposal for Initial Material Characterization of Gauge Blocks Dimensional Stability in Time*, The International Thermal Conductivity Conference (ITCC) and the International Thermal Expansion Symposium (ITES), Birmingham, Alabama, USA, 2007
- D45. D. Gheorghe, A. Bantas, M. Brânzei, M. Miculescu, **F. Miculescu**, *Characterization of Some High Dispersed and Conductive Metallic Powders for Integrated in Polymeric Coatings*, The International Thermal Conductivity Conference (ITCC) and the International Thermal Expansion Symposium (ITES), Birmingham, Alabama, USA, 2007
- D46. P. Antoniac, A. Ivanov, I.V. Antoniac, **F. Miculescu**, G. Cosmeleata, *Experimental researche about technological and microstructural aspects in the case of cobalt-chromium dental alloys*, European Cells and Materials, Vol. 13, Iss. SUPPL.3, Page 28, Source Type: Journal. Document Type: Conference Paper. Indexed SCOPUS. ISSN: 14732262, 2007
- D47. I.V. Antoniac, M. Sajin, **F. Miculescu**, P. Antoniac, M. Ciurea, *Adhesion formation in response to some biodegradable structures used in mesh repair of abdominal wall hernia*, European Cells and Materials, Vol. 13, Iss. SUPPL.3, Page 31, Source Type: Journal. Document Type: Conference Paper. Indexed SCOPUS. ISSN: 14732262, 2007
- D48. C.A. Comes, M.C. Rusu, A.M. Jianu, L. Podoleanu, R. Cergan, **F. Miculescu**, M. Miculescu, *Structural Analyses of the Human Temporomandibular Joint Disk*, Interdisciplinary Approach to present dental medicine – International Congress, Timișoara, ISSN 1844-4903, 2008
- D49. M. Branzei, M. Calin, M. Miculescu, **F. Miculescu**, *A New  $\beta$ -Ti Based Alloys Class with Copious RT Deformability for Medical Devices*, Conferința Internațională Biommedd 2008, Bucharest, 2008
- D50. R. Piticescu, G. Negroiu, I. Mihailescu, I. Patrascu, **F. Miculescu**, L.M. Popescu, *Integrated of Soft Chemical Methods in the Development of Hybrid Biomaterials for Dental Implants*, Conferința Internațională Biommedd 2008, Bucharest, 2008
- D51. E. Albert, M. Muntean, A. Ianculescu, **F. Miculescu**, B. Albert, E., *Schimbări Structurale în Compoziții Ceramice pe Bază de Andezit Bazaltoid*, a X-a Conferința CONSILOX, Timișoara, 2008
- D52. I.V. Antoniac, D. Laptoiu, **F. Miculescu**, R. Istrate, C. Trisca-Rusu, *Microscopy analysis of total knee prosthesis failure caused by polyethylene wear*, European Cells and Materials, Volume 16, Issue SUPPL. 1, Page 18, Document Type: Conference Paper, Indexed SCOPUS, 2008
- D53. M. Târcolea, A.E. Dumitru, A.M. Sandu, **F. Miculescu**, C.M. Cotrut, N. Miculescu, *Investigations on Precipitation Phenomena in a SMA (Ni-Ti)*, European Cells and Materials, Volume 16, Issue SUPPL. 1, 2008, Page 57, ISSN: 14732262, Document Type: Conference Paper, Indexed SCOPUS, 2008
- D54. T. Zecheru, C. Zaharia, E. Rusen, **F. Miculescu**, C. Cincu, *Synthesis, characterisation and bioavailability of two new terpolymer systems*, 8th World Biomaterials Congress 2008, WBC 2008; Amsterdam; Netherlands; Volume 3, 2008, Page 1490, Code 93751, ISBN: 978-161567080-2, Document Type: Conference Paper, Indexed SCOPUS, 2008
- D55. M.C. Rusu, C.A. Comes, D. Stanciu, L. Podoleanu, A.M. Jianu, **F. Miculescu**, M. Miculescu, *Structural analyses of the human temporomandibular joint disk: The chondrocytes*, European Cells and Materials, Vol.

- 16, Iss. SUPPL. 5, Page 23, Source Type: Journal. Document Type: Conference Paper. Indexed SCOPUS. ISSN: 14732262, 2008
- D56. S. Ciuca, G. Cosmeleata, R. Borsa, M. Tarcolea, **F. Miculescu**, B. Ghiban, A. Carrado, E. Gyorgy, I.N. Mihailescu, *Bioceramic coatings obtained by physical and chemical techniques, European Cells and Materials*, Vol. 16, Iss. SUPPL. 1, Page 28, Source Type: Journal. Document Type: Conference Paper. Indexed SCOPUS. ISSN: 14732262, 2008
- D57. M. Tarcolea, **F. Miculescu**, S. Ciuca, R.M. Piticescu, I. Patrascu, L.T. Ciocan, *ESEM investigation on osseo integration of ti alloy implants*, *European Cells and Materials*, Vol. 16, Issue SUPPL. 1, Page 56, Source Type: Journal. Document Type: Conference Paper. Indexed SCOPUS. ISSN: 14732262, 2008
- D58. D. Gheorghe, M. Branzei, M. Miculescu, **F. Miculescu**, M. Calin, *Quantitative Characterization of a New Class of  $\beta$ -Ti Based Alloy*, Conferința Internațională Biommedd 2008, Bucharest, 2008
- D59. A. Ivanov, I.V. Antoniac, C. Cotrut, **F. Miculescu**, D. Laptoiu, R. Istrate, *Failure Analysis of Different Retrieved Hip Prosthesis*, Conferința Internațională Biommedd 2008, Bucharest, 2008
- D60. **F. Miculescu**, T. Zecheru, M. Tarcolea, M. Miculescu, *Dimensional and Morphological Analysis of P(HEMA-CO-DDMA-CO-AA) Microbeads*, Conferința Internațională Biommedd 2008, Bucharest, 2008
- D61. M. Miculescu, M. Branzei, **F. Miculescu**, *Maraging Steel - a Potential Material for Suture Needles and Surgical Blades*, Conferința Internațională Biommedd 2008, Bucharest, 2008
- D62. I. Sandru, S. Peretz, **F. Miculescu**, M. Miculescu, F.D. Tichelaar, L.O Cinteza, *Optical Properties of Water Dispersible ZnS Nanoparticles Obtained in Polymeric and Microemulsion Templates*, Conferința Internațională Biommedd 2008, Bucharest, 2008
- D63. I.Sebe, I.V. Antoniac, D. Laptoiu, **F. Miculescu**, M. Tarcolea, C. Cotrut, R. Istrate, *FTIR and Microscopy Analysis of Different UHMWPE Used in Arthroplasty*, Conferința Internațională Biommedd 2008, Bucharest, 2008
- D64. I.Titorencu, M.G. Albu, V. Trandafir, I.V. Antoniac, V. Marinescu, V. Jinga, C. Cotrut, **F. Miculescu**, M. Simionescu, *Proliferation of Endothelial Cells on Collagen/Doxycycline Matrices*, Conferința Internațională Biommedd 2008, Bucharest, 2008
- D65. T. Zecheru, C. Zaharia, E. Rusen, **F. Miculescu**, I. Sebe, I.V. Antoniac, C. Cincu, *Synthesis and Characterisation of MMA-Ti<sub>2</sub>O<sub>3</sub> Copolymers for Tumour Detection*, Conferința Internațională Biommedd 2008, Bucharest, 2008
- D66. P. Antoniac, M. Sajin, **F. Miculescu**, C. Cotrut, C. Vodislav, I.V. Antoniac, M. Ciurea, *Biodegradability Evaluation Methods for Some Biodegradable Structures Used in Mesh Repair of Abdominal Wall Hernia*, Conferința Internațională Biommedd 2008, Bucharest, 2008
- D67. **F. Miculescu**, M. Miculescu, D. Bojin, *Pastes and Lead-Free Alloys Microstructural Characterization Before and After Soldering Process by Scanning Electron Microscopy/EDX Analysis*, COST action MP0602, HISOLD, Bochum, 2009
- D68. **F. Miculescu**, L.T. Ciocan, M. Miculescu, I. Pencea, *Aspects concerning the heavy metal metabolism in the human hard tissues*, Biommedd2010, Sinaia, Romania, 2010
- D69. **F. Miculescu**, I. Jepu, C. Lungu, M. Miculescu, I.V. Antoniac, *Measured and estimated influence of the electron beam in analysis of nanolayers*, Biommedd2010, Sinaia, Romania, 2010
- D70. **F. Miculescu**, I. Pencea, M. Miculescu, I.V. Antoniac, *Estimated limits in XRF analysis for measuring heavy metals in human hard tissues*, Biommedd2010, Sinaia, Romania, 2010
- D71. **F. Miculescu**, I. Jepu, C. Porosnicu, C. Lungu, D. Bojin, *TVA obtained CuNiCuFe nanolayers for medical sensors*, Biommedd2010, Sinaia, Romania, 2010
- D72. **F. Miculescu**, C. Lungu, V. Kuncser, N. Miculescu, I.V. Antoniac, M. Miculescu, *Nanolayers Based on Giant Magnetoresistance Effect With Multiple Applications*, NN10 Greece, 2010
- D73. A. Robu, D. Laptoiu, R. Marinescu, **F. Miculescu**, I.V. Antoniac, D. Trante, I. Stancu, *Biocomposites for biodegradable implants – synthesis and characterisation*, NN10 Greece, 2010
- D74. **F. Miculescu**, I. Jepu, C.P. Lungu, M. Branzei, I.V. Antoniac, *Nanolayers with medical applications*, Conferinta Internationala Euro Biomat – European Simposium on Biomaterials and Related Areas, Jena, Germania, 2011
- D75. A. Antoniac, A.I. Blajan, R. Istrate, M. Istodorescu, **F. Miculescu**, A. Antoniac, *Correlation between technological aspects and morpho-structural characteristics in the case of bioresorbable composites for orthopaedic screws*, 1st International Seminar on Biomaterials & Regenerative Medicine, Gura Humorului, Romania, 2011
- D76. M. Miculescu, A. Ernuteanu, **F. Miculescu**, L.T. Ciocan, *Thermal analysis of human hard tissues*, 1st International Seminar on Biomaterials & Regenerative Medicine, Gura Humorului, Romania, 2011
- D77. I.V. Antoniac, M. Albu, **F. Miculescu**, A. Antoniac, C. Cotrut, *The advantage of collagen coating for different biodegradable materials used in regeneration of the abdominal tissue*, Tissue Engineering & Regenerative Medicine International Society, Granada, Spain, 2011

- D78. **F. Miculescu**, I. Jepu, C. Posornicu, C.P. Lungu, M. Miculescu, M. Stancu, D. Bojin, *The influence of the electron beam on nanolayers analysis*, Tissue Engineering & Regenerative Medicine International Society, Granada, Spain, 2011
- D79. A.I. Blajan, A. Antoniac, **F. Miculescu**, I.V. Antoniac, *The influence of the ceramic phase on the structure of different resorbable biomaterials based on poly-L-lactic acid (PLLA) for orthopaedic screws*, 8th International Conference on Nanosciences & Nanotechnologies (NN11) Thessaloniki, Greece, 2011
- D80. M. Tarcolea, **F. Miculescu**, C. Cotrut, V. Soare, *Anticorrosive protection with phosphate Ni-Zn thin films – composition, growing morphology and corrosion resistance*, Advanced Materials and Structures - AMS '11, Timisoara, Romania, ISBN: 978-606-554-374-4, 2011
- D81. I. Plotog, M. Branzei, A. Thumm, **F. Miculescu**, *Structural characterization of micro alloyed SN100c solder materials system in VPS assembling process*, Advanced Materials and Structures - AMS '11, Timisoara, Romania, ISBN: 978-606-554-374-4, 2011
- D82. B. Ghiban, C.M. Bortun, N. Ghiban, N. Faur, G. Jiga, **F. Miculescu**, A. Semenescu, A. Cernescu, *Failure Analysis of Some Heat Curing Resins for Dental Applications*, IQCMEA – Proceeding, Performance and Failure Analysis of Engineering Materials, Luxor, Egypt, 2011
- D83. **F. Miculescu**, I. Jepu, C.P. Lungu, M. Miculescu, I.V. Antoniac, D. Bojin, *Comparative simulated and experimental study on Cu Ni Fe nanolayers*, 24th European Conference on Biomaterials, Dublin, Ireland, 2011
- D84. **F. Miculescu**, I. Jepu, C.P. Lungu, M. Miculescu, I.V. Antoniac, D. Bojin, *Comparative simulated and experimental study on Cu Ni Fe nanolayers*, 24th European Conference on Biomaterials, EBS 2011; Dublin; Ireland; Page 1, Code 100603, Document Type: Conference Paper, Indexed SCOPUS, 2011
- D85. M. Miculescu, I. Pencea, **F. Miculescu**, L.T. Ciocan, A. Ernuteanu, E. Matei, *EDPXRf analysis of heavy elements in human hard tissue*, 24th European Conference on Biomaterials, EBS 2011; Dublin; Ireland; 1 page; Code 100603, Document Type: Conference Paper, Indexed SCOPUS, 2011
- D86. A. Ghiban, B. Ghiban, C.M. Bortun, N. Ghiban, A. Semenescu, **F. Miculescu**, P. Moldovan, *Tensile and bending behavior for some CoCrMo alloys*, 24th European Conference on Biomaterials, EBS 2011; Dublin; Ireland; 1 page, Code 100603, Document Type: Conference Paper, Indexed SCOPUS, 2011
- D87. L.T. Ciocan, **F. Miculescu**, M. Miculescu, I. Pătrașcu, *Advantages and Failures in Zirconia Restorations*, Proceeding of International Conference Biommedd2012, Constanța, Romania, ISSN: 2069-0193, ISBN: 9-772069019002
- D88. B.M. Galbinas, D. Herschbach, **F. Miculescu**, L.T. Ciocan, I. Patrascu, *Static and Dynamic Evaluation of Inlay - Dental Tissue Interface*, Proceeding of International Conference Biommedd2012, Constanța, Romania, ISSN: 2069-0193, ISBN: 9-772069019002
- D89. R.M. Comăneanu, D.L. Ghergic, E. David, **F. Miculescu**, M.C. Cotruț, M. Târcolea, *SEM Study About Dental Implants Failure*, Proceeding of International Conference Biommedd2012, Constanța, Romania, ISSN: 2069-0193, ISBN: 9-772069019002
- D90. C.M. Cotrut, A. Vladescu, V. Braic, M. Braic, I. Titorencu, A. Kiss, **F. Miculescu**, C.N. Zoita, *Characterization of Nanostructured Hf Doped Zirconium Carbonitride Films*, Proceeding of International Conference Biommedd2012, Constanța, Romania, ISSN: 2069-0193, ISBN: 9-772069019002
- D91. B. Ghiban, F. Purghele, N. Ghiban, I.V. Antoniac, A. Semenescu, S. Ciuca, **F. Miculescu**, *Investigations of Different Fracture Surfaces From Stainless Steels Implants*, Proceeding of International Conference Biommedd2012, Constanța, Romania, ISSN: 2069-0193, ISBN: 9-772069019002
- D92. **F. Miculescu**, I. Jepu, C. Porosnicu, C. Lungu, D. Bojin, *TVA Obtained CuNiCuFe Nanolayers for Medical Sensors*, Proceeding of International Conference Biommedd2012, Constanța, Romania, ISSN: 2069-0193, ISBN: 9-772069019002
- D93. **F. Miculescu**, I. Jepu, C. Lungu, M. Miculescu, I.V. Antoniac, *Measured and Estimated Influence of The Electron Beam in Analysis of Nanolayers*, Proceeding of International Conference Biommedd2012, Constanța, Romania, ISSN: 2069-0193, ISBN: 9-772069019002
- D94. **F. Miculescu**, L.T. Ciocan, M. Miculescu, I. Pencea, *Aspects Concerning the Heavy Metal Metabolism in the Human Hard Tissues*, Proceeding of International Conference Biommedd2012, Constanța, Romania, ISSN: 2069-0193, ISBN: 9-772069019002
- D95. **F. Miculescu**, I. Pencea, M. Miculescu, I.V. Antoniac, *Estimated Limits in XRF Analysis for Measuring Heavy Metals in Human Hard Tissues*, Proceeding of International Conference Biommedd2012, Constanța, Romania, ISSN: 2069-0193, ISBN: 9-772069019002
- D96. A. Robu, C.M. Cotrut, **F. Miculescu**, *Surface and Morphology of Zr Based Biocompatible Thin Films Deposited on Metallic Substrate*, Proceeding of International Conference Biommedd2012, Constanța, Romania, ISSN: 2069-0193, ISBN: 9-772069019002
- D97. M. Târcolea, A. Bechir, R.M. Comăneanu, **F. Miculescu**, O. Smătrea, D.L. Ghergic, *Microscopic Studies Regarding the Causes of the Fracture in an Aesthetic Dental Bridge*, Proceeding of International Conference

Biommedd2012, Constanța, Romania, ISSN: 2069-0193, ISBN: 9-772069019002

- D98. I.V. Antoniac, D. Vranceanu, **F. Miculescu**, *Bioceramics Influence on the Biodegradability of Collagen Based Composite for Hard Tissue Regeneration*, 6th International Symposium Apatite and Correlative Biomaterials, Bioceramics Development and Applications, Proceedings-ISACB-6, ISSN: 2090-5025 BDA, June 6-7, Nantes, France, 2013
- D99. **F. Miculescu**, L.T. Ciocan, M. Miculescu, M. Branzei, N. Ghiban, *Thermal processing temperature influence on hard tissue chemical composition*, International Conference on Materials Science and Engineering, BRAMAT, 28 February -2 March, 2013, Brașov, Romania
- D100 M. Miculescu, M. Brânzei, **F. Miculescu**, M. Bane, *A study on metal-ceramic thermal expansion compatibility*, Fifth International Conference on Advanced Materials and Structures, ISSN: 2248-0781, 24-25 October, Timișoara, Romania, 2013
- D101 **F. Miculescu**, L.T. Ciocan, M. Miculescu, M. Bane, M. Brânzei, *Implant surface finishing influence on tissue-implant anchoring*, Fifth International Conference on Advanced Materials and Structures, ISSN: 2248-0781, 24-25 October, Timișoara, Romania, 2013
- D102 I.V. Antoniac, A. Robu, **F. Miculescu**, D. Gheorghe, *The influence of processing technologies of dental alloys on the microstructure and surface of metallic structure in the case of metallo-ceramic prosthesis*, Fifth International Conference on Advanced Materials and Structures, ISSN: 2248-0781, 24-25 October, Timișoara, Romania, 2013
- D103 R.M. Comăneanu, C. Coman, H.M. Barbu, **F. Miculescu**, M. Târcolea, *Correlation between cito-histopathological changes of tissue at the interface with dental implants and level of processing implant surface*, Proceeding of International Seminar on Biomaterials & Regenerative Medicine BioReMed'2013 și Simpozionul Național de Biomateriale "Biomateriale și Aplicații Medico - Chirurgicale" IXth edition, ISBN: 978-973-670-520-5, 30 Mai - 2 Iunie 2013, Iași, Romania
- D104 M. Miculescu, L.T.Ciocan, **F. Miculescu**, I.V. Antoniac, A. Ernuțeanu, *Research for LOD determination of heavy metals measurands and accompanying elements and reletad LODD determining*, Proceeding of International Seminar on Biomaterials & Regenerative Medicine BioReMed'2013 și Simpozionul Național de Biomateriale "Biomateriale și Aplicații Medico - Chirurgicale" IXth edition, ISBN: 978-973-670-520-5, 30 Mai - 2 Iunie 2013, Iași, Romania
- D105 **F. Miculescu**, L.T.Ciocan, M. Miculescu, I.V. Antoniac, A. Ernuțeanu, *Surface modification with PLA - an alternative in biomaterials based on heat treated compact bone*, Proceeding of International Seminar on Biomaterials & Regenerative Medicine BioReMed'2013 și Simpozionul Național de Biomateriale "Biomateriale și Aplicații Medico - Chirurgicale" IXth edition, ISBN: 978-973-670-520-5, 30 Mai - 2 Iunie 2013, Iași, Romania
- D106 D. Vrânceanu, A. Antoniac, C. Vodislav, **F. Miculescu**, I.V. Antoniac, *Biodegradability studies of some composites collagen-bioceramics*, Proceeding of International Seminar on Biomaterials & Regenerative Medicine BioReMed'2013 și Simpozionul Național de Biomateriale "Biomateriale și Aplicații Medico - Chirurgicale" IXth edition, 30 Mai - 2 Iunie 2013, Iași, Romania
- D107 A. Visan, D. Grossin, N. Ștefan, L. Duță, F.M. Miroiu, M. Sopronyi, **F. Miculescu**, M. Freche, C. Charvilat, O. Marsan, S. Ciucă. I.N. Mihăilescu, *Biomimetic nanocrystalline apatite coatings synthesized by matrix assisted pulsed laser evaporation for medical applications*, 25th Symposium and Annual Meeting of the International Society for Ceramics in Medicine, ISBN: 978-606-23-0104-0, 7-10th November, 2013, Bucharest, Romania
- D108 R. Ionescu, C. Munteanu, **F. Miculescu**, E. Vasile, M. Niculescu, R. Șaban, *Sueface characterisation and adhesion studies on some ceramic coatings on stainless steel substrate*, 25th Symposium and Annual Meeting of the International Society for Ceramics in Medicine, ISBN: 978-606-23-0104-0, 7-10th November, 2013, Bucharest, Romania
- D109 M. Miculescu, L.T. Ciocan, **F. Miculescu**, I.V. Antoniac, *Thermophysical study of PFM systems for dental applications*, 25th Symposium and Annual Meeting of the International Society for Ceramics in Medicine, ISBN: 978-606-23-0104-0, 7-10th November, 2013, Bucharest, Romania
- D110 M. Niculescu, M. Negrușoiu, **F. Miculescu**, *Retrieval analysis of some total knee prosthesis and considerations about the influence of cementing technique for the tibial component on the degradation rate*, 25th Symposium and Annual Meeting of the International Society for Ceramics in Medicine, ISBN: 978-606-23-0104-0, 7-10th November, 2013, Bucharest, Romania
- D111 M. Branzei, M. Miculescu, **F. Miculescu**, *Complex characterization of three types of titanium alloys*, Conferința Internațională Biommedd2014, Constanța, Romania
- D112 **F. Miculescu**, A. Berbecaru, M. Miculescu, I.V. Antoniac, A. Purcaru, A. Maidaniuc, *Cooling conditions influences on cortical bovine bones derived hydroxyapatite*, Conferința Internațională Biommedd2014, Constanța, Romania
- D113 **F. Miculescu**, L.T. Ciocan, M. Miculescu, A. Mocanu, A. Maidaniuc, A. Purcaru, *Micro-analytical comparison*

- regarding elemental composition of nonstoichiometric bovine bone derived hydroxyapatite*, Conferința Internațională Biommedd2014, Constanța, Romania
- D114 M. Miculescu, M. Bane, **F. Miculescu**, L.T. Ciocan, D. Enescu, I.V. Antoniac, *A study on metal ceramic interface on metal base dental alloys*, Conferința Internațională Biommedd2014, Constanța, Romania
- D115 M. Miculescu, M. Bane, **F. Miculescu**, D. Meghea, *Dental plating efficiency of metal base dental alloys by thermal diffusivity study*, Conferința Internațională Biommedd2014, Constanța, Romania
- D116 M. Niculescu, D. Laptoiu, D. Cojocar, **F. Miculescu**, I.V. Antoniac, *Effects of stem preheating on the stem-cement interface for cemented hip implants: in vitro study*, Conferința Internațională Biommedd2014, Constanța, Romania.
- D117 A. Robu, L. Reclaru, C.M. Cotrut, **F. Miculescu**, A. Antoniac, *Microstructural characterization of different Co-Cr dental alloys obtained using different processing routes*, Conferința Internațională Biommedd2014, Constanța, Romania
- D118 A.T. Farcasiu, I.V. Antoniac, **F. Miculescu**, C. Farcasiu, *SEM evaluation of different denture base materials used in clinical practice*, International Seminar on Biomaterials & Regenerative Medicine BIOREMED 2015, September 17-20, 2015, Oradea, Romania
- D119 A. Antoniac, M. Niculescu, M. Albu, **F. Miculescu**, C. Tecu, I.V. Antoniac, *Characterization of some Biomimetic Supports based on Biopolymers and Calcium Phosphates Potentially used for Bone Regeneration*, 5th International Conference on e-Health and Bioengineering, EHB 2015, 19-21 November 2015, Iasi, Romania
- D120 **F. Miculescu**, A. Maidaniuc, L.T. Ciocan, M. Miculescu, E. Matei, A. Mocanu, A. Berbecaru, *Particle size influence in compositional analysis of bovine bone-derived products*, International Seminar on Biomaterials & Regenerative Medicine BIOREMED 2015, September 17-20, 2015, Oradea, Romania
- D121 A. Maidaniuc, G.E. Stan, M. Miculescu, S.I. Voicu, A. Cimpean, V. Mitran, D. Batalu, **F. Miculescu**, *In vitro evaluation of calcium phosphate powders intended for solid freeform fabrication of bone scaffolds*, 7th International Conference "Biomaterials, Tissue Engineering & Medical Devices" BIOMMEDD'2016, 15-18 September, Constanța, Romania
- D122 A.C. Mocanu, S.I. Voicu, A. Maidaniuc, M. Miculescu, L.T. Ciocan, C.A. Dascalu, A. Berbecaru, **F. Miculescu**, *Synthesis technology and preliminary characterization of marble type precursors-derived hydroxyapatite as bone substituent*, 7th International Conference "Biomaterials, Tissue Engineering & Medical Devices" BIOMMEDD'2016, 15-18 September, Constanța, Romania
- D123 A. Muhulet, **F. Miculescu**, S.I. Voicu, *Composite polymeric membranes with carbon nanotubes for hemodialysis*, 7th International Conference "Biomaterials, Tissue Engineering & Medical Devices" BIOMMEDD'2016, 15-18 September, Constanța, Romania
- D124 A. Maidaniuc, G.E. Stan, M. Miculescu, S.I. Voicu, A. Cimpean, V. Mitran, D. Batalu, **F. Miculescu**, *Evaluation of heat treatment parameters effects upon the material characteristics of bovine bone-derived calcium phosphates*, 6th International Conference on Materials Science and Technologies – RoMat 2016, Bucharest, Romania
- D125 A.C. Mocanu, S.I. Voicu, A. Maidaniuc, M. Miculescu, L.T. Ciocan, C.A. Dascălu, A. Berbecaru, **F. Miculescu**, *Conversion procedure and preliminary characterization of Mytilus galloprovincialis seashell-derived ceramics as bone substitute*, 6th International Conference on Materials Science and Technologies – RoMat 2016, Bucharest, Romania
- D126 A. Purcaru, C. Pop, M. Miculescu, C.P. Lungu, I. Jecu, **F. Miculescu**, *Surface morphology dependence on layer thickness in nanostructured multilayers with GMR effect*, 6th International Conference on Materials Science and Technologies – RoMat 2016, Bucharest, Romania
- D127 S.I. Voicu, A. Muhulet, M. Miculescu, **F. Miculescu**, S. Vizireanu, *Polysulfone membrane reactors for derivatization of carbon nanotubes*, Advanced Materials - TechConnect Briefs, Washington, USA, 2016
- D128 **F. Miculescu**, A. Maidaniuc, S.I. Voicu, M. Miculescu, D. Batalu, *Strategies for production of naturally-derived calcium phosphates particles*, Advanced Materials - TechConnect Briefs, Washington, USA, 2016
- D129 A. Maidaniuc, S.I. Voicu, M. Miculescu, C. Andronescu, E. Matei, A.C. Mocanu, I. Pencea, I. Csaki, T. Machedon-Pisu, **F. Miculescu**, *Induced wettability and surface-volume correlation of composition for bovine bone derived hydroxyapatite particles*, Bramat 2017 - 10th International Conference on Materials Science & Engineering, 8 - 11 martie 2017, Brașov, Romania (Principal author)
- D130 **F. Miculescu**, A.C. Mocanu, G. Stan, S.I. Voicu, M. Miculescu, A. Maidaniuc, A. Cimpean, V. Mitran, T. Machedon-Pisu, *Influence of the modulated two-step synthesis of biogenic hydroxyapatite on biomimetic products` surface*, Bramat 2017 - 10th International Conference on Materials Science & Engineering, 8 - 11 martie 2017, Brașov, Romania
- D131 S.I. Voicu, M.A. Pandele, A. Iordache, **F. Miculescu**, A.I. Staras, P. Neacsu, A. Cimpean, V.K. Thakur, *Resveratrol covalent immobilization onto cellulose acetate membranes for improved osseointegration*, Bramat 2017 - 10th International Conference on Materials Science & Engineering, 8 - 11 martie 2017,

Braşov, Romania

- D132 **F. Miculescu**, B. Vasile, C.M. Cotrut, A. Purcaru, M. Miculescu, G.E. Stan, V. Kuncser, I. Jepu, C.P. Lungu, T. Machedon-Pisu, *Modulation of TVA deposition parameters for the Fe-Ni-Cu-Ta thin films interdiffusivity and GMR effect influence*, Bramat 2017 - 10th International Conference on Materials Science & Engineering, 8 - 11 martie 2017, Braşov, Romania
- D133 A. Maidaniuc, M. Miculescu, S.I. Voicu, R.C. Ciocoiu, A.C. Mocanu, **F. Miculescu**, *Hydroxyapatite and silver microcomposites with improved mechanical characteristics*, RoPM-AM 2017 - 5th International Conference on Powder Metallurgy & Advanced Materials, 17-20 septembrie 2017, Cluj-Napoca, Romania
- D134 M. Miculescu, **F. Miculescu**, A. Maidaniuc, S.I. Voicu, G.E. Stan, *Correlation of the Morphology, Composition and Structure of Bovine Bone-Derived Calcium Phosphates with the Sintering Parameters*, 4-8 septembrie 2017, ESB 2017 - 28th Annual Conference of the European Society for Biomaterials, Atena, Grecia
- D135 **F. Miculescu**, A.C. Mocanu, S.I. Voicu, G.E. Stan, M. Miculescu, *Two-Step Wet Chemical Synthesis of Calcium Phosphates from Mediterranean Mussel Shells and White Dolomitic Marble*, 4-8 septembrie 2017, ESB 2017 - 28th Annual Conference of the European Society for Biomaterials, Atena, Grecia
- D136 **F. Miculescu**, *Sustainable use of biogenic resources for developing calcium phosphates bioceramics and microcomposites with tunable bulk and surface characteristics*, BIOREMED 2017 - The International Seminar on Biomaterials and Regenerative Medicine BIOREMED 2017, 5-8 octombrie 2017, Timisoara, Romania
- D137 A.C. Mocanu, A.Maidaniuc, C.A. Dascălu, M. Miculescu, **F.Miculescu**, *Study on experimental and image analysis complementarity as additional tool for characterizing biogenic calcium phosphates morphology*, BIOREMED 2017 - The International Seminar on Biomaterials and Regenerative Medicine BIOREMED 2017, 5-8 octombrie 2017, Timisoara, Romania
- D138 A. Maidaniuc, A.C. Mocanu, C.A. Dascălu, M. Miculescu, S.I. Voicu, **F. Miculescu**, *Effect of sintering time on the particle interconnection of bovine bone-derived hydroxyapatite powders*, BIOREMED 2017 - The International Seminar on Biomaterials and Regenerative Medicine BIOREMED 2017, 5-8 octombrie 2017, Timisoara, Romania
- D139 C. Luţă, M.Soare, A.C. Mocanu, A. Maidaniuc, A. Ernuţeanu, **F.Miculescu**, *Comprehensive nondestructive testing on metallic implants destined for orthopedic applications*, BIOREMED 2017 - The International Seminar on Biomaterials and Regenerative Medicine BIOREMED 2017, 5-8 octombrie 2017, Timisoara, Romania
- D140 A.F. Dobre, M. Soare, A.C. Mocanu, A. Maidaniuc, A. Ernuţeanu, **F. Miculescu**, *Study on morphological and geometrical features of metallic implants designed for dental restorations*, BIOREMED 2017 - The International Seminar on Biomaterials and Regenerative Medicine BIOREMED 2017, 5-8 octombrie 2017, Timisoara, Romania
- D141 AC Mocanu, A. Maidaniuc, CA Dascălu, T. Butte, M. Miculescu, SI Voicu, **F. Miculescu**, *Progressive conversion of marine and terrestrial bioresources into biomimetic calcium phosphates*, Scientific Conference of Doctoral Schools SCDS-UDJG, Perspectives and challenges in doctoral research, 6th Edition, "Dunarea de Jos" University of Galati, 7-8 of June 2018
- D142 C.A. Dascălu, A.C. Mocanu, A. Maidaniuc, T. Butte, M. Miculescu, Ş.I. Voicu, **F. Miculescu**, *Composite Membranes Modified With Bovine Bone Bioceramics For Biomedical Applications*, Scientific Conference of Doctoral Schools SCDS-UDJG, Perspectives and challenges in doctoral research, 6th Edition, "Dunarea de Jos" University of Galati, 7-8 of June 2018
- D143 A. Maidaniuc, A.C. Mocanu, C.A. Dascalu, T. Butte, M. Miculescu, **F. Miculescu**, *Research and studies regarding tridimensional structures based on powdered hydroxyapatite-based materials for bone reconstruction*, Scientific Conference of Doctoral Schools SCDS-UDJG, Perspectives and challenges in doctoral research, 6th Edition, "Dunarea de Jos" University of Galati, 7-8 of June 2018
- D144 A.C. Mocanu, I.V. Antoniac, A. Maidaniuc, M. Miculescu, C.A. Dascălu, G.E. Stan, **F. Miculescu**, *Influence of synthesis set-up on seashell derived-calcium phosphates composition and complementary morphological image processing*, Biommedd 2018, 27-29th September 2018, Cluj-Napoca, Romania
- D145 C.A. Dascălu, A.C. Mocanu, A. Maidaniuc, A.M. Pandeale, S.I. Voicu, **F. Miculescu**, *The importance of hydroxyapatite route synthesis from bovine bone origin on composite materials used in guided bone regeneration*, Biommedd 2018, 27-29th September 2018, Cluj-Napoca, Romania
- D146 L.M. Boldu, T.M. Butte, A. Maidaniuc, R.C. Ciocoiu, G.E. Stan, A.C. Mocanu, **F. Miculescu**, *Effect of calcination temperature on the morphology and composition of fish derived-calcium phosphates*, Biommedd 2018, 27-29th September 2018, Cluj-Napoca, Romania
- D147 T.M. Butte, S. Nitu, A. Maidaniuc, R.C. Ciocoiu, M. Miculescu, G.E. Stan, **F. Miculescu**, *The influence of silver content on the morphological, compositional and mechanical characteristics of sintered hydroxyapatite-silver microcomposites*, Biommedd 2018, 27-29th September 2018, Cluj-Napoca, Romania
- D148 A.E. Constantinescu, T.M. Butte, A. Maidaniuc, A.M. Pandeale, S.I. Voicu, **F. Miculescu**, *Preliminary studies*

- on the morphology, composition and thermal behaviour of hydroxyapatite-polymer composite filaments*, Biommedd 2018, 27-29th September 2018, Cluj-Napoca, Romania
- D149 O.E. Ilie, I.V. Antoniac, T.M. Butte, A. Maidaniuc, R.C. Ciocoiu, **F. Miculescu**, *Finite element analysis and experimental testing of mechanical properties of 3D printed materials for internal fixators*, Biommedd 2018, 27-29th September 2018, Cluj-Napoca, Romania
- D150 A.C. Mocanu, I.V. Antoniac, M. Miculescu, A. Maidaniuc, C.A. Dascălu G.E. Stan, **F. Miculescu**, *Study on conversion methodology for dolomitic marble derived-calcium phosphates and complementary image processing*, ROMAT 2018, 15-18th November 2018, Bucharest, Romania
- D151 M. Soare, A.C. Mocanu, C. Iordache, A. Maidaniuc, **F. Miculescu**, *Complementary broadband ultrasonic spectroscopy evaluation of naturally derived-calcium phosphates*, ROMAT 2018, 15-18th November 2018, Bucharest, Romania
- D152 C.A. Dascălu, A.C. Mocanu, A. Maidaniuc, G.E. Stan, A.M. Pandele, S.I. Voicu, **F. Miculescu**, *The influence of hydroxyapatite addition on the structure of composite materials used in guided bone regeneration*, ROMAT 2018, 15-18th November 2018, Bucharest, Romania
- D153 L.M. Boldu, T.M. Butte, A. Maidaniuc, R.C. Ciocoiu, G.E. Stan, A.C. Mocanu, **F. Miculescu**, *Influence of calcination temperature on the sinterability of fish derived-calcium phosphates*, ROMAT 2018, 15-18th November 2018, Bucharest, Romania
- D154 T.M. Butte, S. Nitu, A. Maidaniuc, R.C. Ciocoiu, M. Miculescu, G.E. Stan, **F. Miculescu**, *The effect of different sintering strategies on the characteristics of hydroxyapatite-silver microcomposites*, ROMAT 2018, 15-18th November 2018, Bucharest, Romania
- D155 E. Constantinescu, T.M. Butte, A. Maidaniuc, A.M. Pandele, S.I. Voicu, **F. Miculescu**, *Comparative studies on polymeric-ceramic composites obtaining possibilities*, ROMAT 2018, 15-18th November 2018, Bucharest, Romania
- D156 O.E. Ilie, I.V. Antoniac, T.M. Butte, A. Maidaniuc, R.C. Ciocoiu, **F. Miculescu**, *Studies on the possibilities of obtaining internal bone fixators using CAD design and 3D printing*, ROMAT 2018, 15-18th November 2018, Bucharest, Romania
- D157 V. Mitran, R. Ion, M. Miculescu, MG. Necula, **F. Miculescu**, A. Cimpean, *Biocompatibility assessment and osteoblast response o seashell and marble derived hydroxyapatite*, SNBC 2018
- D158 V. Mitran, R. Ion, MG. Necula, T. Butte, **F. Miculescu**, A. Cimpean, *In vitro macrophage behaviour on structures based on biogenic calcium phosphates*, SNBC 2018
- D159 A.C. Mocanu, M. Miculescu, T. Machedon-Pisu, A. Maidaniuc, S.I. Voicu, R.C. Ciocoiu, A.M. Pandele, M. Ionita, G.E. Stan, **F. Miculescu**, *Internal and external surface features of newly developed porous ceramics with random interconnected 3D channels by fibrous sacrificial porogen method*, BRAMAT 2019, 11th International Conference on Materials Science & Engineering, Brasov, Romania, 2019
- D160 A. Maidaniuc, M. Miculescu, T.M. Butte, L.M. Boldu, R.C. Ciocoiu, G.E. Stan, I.V. Antoniac, T. Machedon-Pisu, **F. Miculescu**, *Effect of processing parameters on the morphology, surface and mechanical properties of sintered ceramics prepared from fish bone*, BRAMAT 2019, 11th International Conference on Materials Science & Engineering, Brasov, Romania, 2019
- D161 C.A. Dascălu, I. V. Antoniac, A. Maidaniuc, A.M. Pandele, S.I. Voicu, T. Machedon-Pisu, G.E. Stan, A. Cimpean, V. Mitran, **F. Miculescu**, *Synthesis and characterization of biocompatible polymer-ceramic film structures as favorable interface in guided bone regeneration*, BRAMAT 2019, 11th International Conference on Materials Science & Engineering, Brasov, Romania, 2019
- D162 N. Levița, Z. Vuluga, F. Miculescu, M.C. Corobea, C.A. Nicolae, R. Gabor, A.A. Măinea, G.M. Teodorescu, *Nanocomposites based on polyamide 6/halloysite versus polyamide 6/hydratocite*, RICCE 21, 21st Romanian International Conference on Chemistry and Chemical Engineering, 4-7 September 2019, Constanta, Romania
- D163 A.C. Mocanu, M. Miculescu, A. Maidaniuc, S.I. Voicu, R.C. Ciocoiu, A.M. Pandele, M. Ionita, G.E. Stan, **F. Miculescu**, *Novel Porous Ceramics with Random Interconnected 3D Channels Obtained by Sacrificial Porogen Method*, BIOREMEDI 2019 - The International Seminar on Biomaterials and Regenerative Medicine, 26-28 Septembrie, Craiova, România
- D164 A.C. Mocanu, M. Miculescu, G.E. Stan, A. Cimpean, C.A. Dascălu, I.V. Antoniac, **F. Miculescu**, *Influence of progressive conversion of marble and seashell on biphasic calcium phosphates` features for biomedical applications*, RoMat 2020 – The 8th International Conference on Materials Science and Technologies, 26-27 Noiembrie, București, România
- D165 A.C. Mocanu, C.A. Dascălu, A.E. Constantinescu, **F. Miculescu**, *Synthesis of core-shell biomaterials based on polymeric filaments and a bioceramic coating for biomedical applications*, EmergeMAT 2021 – The 4th International Conference on Emerging Technologies in Materials Engineering, 4-5 Noiembrie, București, România
- D166 A.C. Mocanu, F. Miculescu, T.M. Butte, G.E. Stan, M. Miculescu, A. Pascu, R.C. Ciocoiu, *Development of*

- ceramic coatings on titanium alloy substrate by laser cladding: influence of natural hydroxyapatite ratio and beam power, AMS 2022 – The 9th International Conference on Advanced Materials and Structures, 16-18 Iunie, Timișoara, România
- D167 A.C. Mocanu, **F. Miculescu**, A. Antoniac, R.C. Ciocoiu, M. Miculescu, A.E. Constantinescu, State-of-the-art of feasible synthesis routes for biogenic composite filaments development for the FDM technology with biomedical applications, BiomMedD'2022 – The 9th International Conference “Biomaterials, Tissue Engineering & Medical Devices”, 20-22 Iulie, București, România
- D168 A.C. Mocanu, **F. Miculescu**, A. Antoniac, R.C. Ciocoiu, M. Miculescu, A.E. Constantinescu, State-of-the-art of feasible synthesis routes for biogenic composite filaments development for the FDM technology with biomedical applications, BiomMedD'2022 – The 9th International Conference “Biomaterials, Tissue Engineering & Medical Devices”, 20-22 Iulie, București, România
- D169 A.E. Constantinescu, Ș. Lăptoiu, A.C. Mocanu, M. Miculescu, Ș.I. Voicu, M.A. Pandele, **F. Miculescu**, The synthesis of PLA/HA composite filaments for biomedical applications, EUROINVENT ICIR 2023 – 15th International Conference on Innovative Research, 11-12 Mai, Iași, România
- D170 A.E. Constantinescu, Ș. Lăptoiu, A.C. Mocanu, M. Miculescu, Ș.I. Voicu, M.A. Pandele, **F. Miculescu**, Selection of precursor materials for composite filaments development with biomedical applications, 4th Edition New Trends in Metallic Material Processing 2024, 17-18 Mai, București, România
- D171 A.C. Mocanu, A.E. Constantinescu, Ș. Lăptoiu, M. Miculescu, Ș.I. Voicu, M.A. Pandele, A. Cîmpean, **F. Miculescu**, Composite PLA/HA/GNP filaments developed for 3D printing, APMG 2023 – 3rd International Conference on Bioengineering and Polymer Science, 7-11 Iunie, București, România
- D172 A.M. Negrescu, V. Mitran, **F. Miculescu**, A.C. Mocanu, A.E. Constantinescu, A. Cîmpean, In vitro biological performance of 3D-printed PLA-based composites as bone scaffolds, The Annual International Conference of RSBMB 2023, 13-15 Septembrie, Cluj-Napoca, România
- D173 A.C. Mocanu, **F. Miculescu**, Ș.I. Voicu, A.M. Pandele, S. Dondea, Ș.A. Lăptoiu, Antimicrobial materials with printable features for the fabrication of implantable devices, Bramat 2024 – 13th International Conference on Materials Science & Engineering, 13-16 Martie, Brașov, România
- D174 A.C. Mocanu, **F. Miculescu**, Ș.I. Voicu, A.M. Pandele, A.E. Constantinescu, Ș.A. Lăptoiu, Printable composite filaments with antimicrobial effect for the manufacturing of implantable devices, WBC 2024 – 12th World Biomaterials Congress, 26-31 Mai, Daegu, Republica Coreea
- D175 A.C. Mocanu, **F. Miculescu**, A. Pascu, E.S. Dondea, P. Stoica, D. Căruntu, Laser Cladding of Bioceramic Coatings on Titanium Alloy Substrate for Biomedical Applications, AMS 2024 – 10th International Conference on Advanced Materials and Structures, 30 Mai – 1 Iunie, Timișoara, România
- D176 E.S. Dondea, **F. Miculescu**, D. Batalu, A.C. Mocanu, P. Stoica, D. Căruntu, Composite Materials with Antimicrobial Features used for 3D Printing Implantable Devices, AMS 2024 – 10th International Conference on Advanced Materials and Structures, 30 Mai – 1 Iunie, Timișoara, România
- D177 A.E. Constantinescu, A.C. Mocanu, **F. Miculescu**, Ș.I. Voicu, M.A. Pandele, S. Dondea, Ș.A. Lăptoiu, Composite Materials with Printable and Antimicrobial Features for Biomedical Applications, EUROINVENT ICIR 2024 – 16th International Conference on Innovative Research, 6-7 Iunie, Iași, România
- D178 A.C. Mocanu, **F. Miculescu**, Ș.I. Voicu, A.M. Pandele, S. Dondea, Ș.A. Lăptoiu, A.E. Constantinescu, Antimicrobial Composite Materials Destined for the Additive Fabrication of Implantable Devices, BiomMedD'2024 – The 10th International Conference “Biomaterials, Tissue Engineering & Medical Devices”, 10-12 Octombrie, București, România
- D179 P.G. Stoica, A.C. Mocanu, **F. Miculescu**, G.E. Stan, M. Miculescu, M.H. Țierean, A. Pascu, R.C. Ciocoiu, Ceramic coatings developed on titanium alloy substrate by laser cladding with pre-placed natural derived-slurry, RoMat 2024 – The 10th International Conference on Materials Science and Technologies, 14-15 Noiembrie, București, România
- D180 A.E. Constantinescu, A.C. Mocanu, A.M. Pandele, Ș.I. Voicu, D. Batalu, M. Miculescu, A. Cîmpean, A.M. Negrescu, **F. Miculescu**, Precursor materials destined for the development of printable composite filaments, RoMat 2024 – The 10th International Conference on Materials Science and Technologies, 14-15 Noiembrie, București, România
- D181 D. Căruntu, A.C. Mocanu, **F. Miculescu**, G.E. Stan, A. Pascu, M.H. Țierean, Modulated Laser Cladding of Hydroxyapatite Coatings by Powder Injection on Ti6Al4V Substrates, RoMat 2024 – The 10th International Conference on Materials Science and Technologies, 14-15 Noiembrie, București, România
- D182 E.S. Dondea, F. Miculescu, A.C. Mocanu, D. Batalu, R.C. Ciocoiu, P.G. Stoica, D. Căruntu, Composite Materials used for 3D Printing Implantable Devices, RoMat 2024 – The 10th International Conference on Materials Science and Technologies, 14-15 Noiembrie, București, România
- D183 E.S. Dondea, A.C. Mocanu, **F. Miculescu**, M.A. Pandele, A. Ghebaour, A.A. Dobre, Composite materials with induced antibacterial effect used for 3D printing implantable devices, NN25 - 22nd International Conference on Nanosciences & Nanotechnologies, 8-11 Iulie, Thessaloniki, Grecia

D184 A.E. Constantinescu, A.C. Mocanu, M.A. Pandele, D. Batalu, M. Miculescu, **F. Miculescu**, Tailoring FDM Parameters for High-Performance Biocompatible Composite Filaments with Biogenic Hydroxyapatite and Graphene Nanoplatelets, NN25 - 22nd International Conference on Nanosciences & Nanotechnologies, 8-11 Iulie, Thessaloniki, Grecia

D185 F. Dondea, E. Visileanu, **F. Miculescu**, A.C. Mocanu, Hydrogel Filaments Reinforced with Natural Fibers Used for Advanced Biomedical Applications, EXTEH - The National Research and Development Institute for Textiles and Leather Conference, Lucretiu Patrascanu, 030508 Bucharest, Romania, October 23-24, 2025

## **Research Contracts as Manager or Responsible**

### **Project manager**

- “Novel technology for implants manufacturing from 3D printable reinforced composite filaments for guided bone regeneration”, PN-III-P2-2.1-PED-2021-1650, Contract number 583PED/2022, BoneGapFill (2 years, 2022-2024)
- “New technology for the synthesis and manufacturing of biomimetic implants derived from biogenic resources used for bone reconstruction surgery”, Grant PN-III-P2-2.1-PED-2016-0892, BioImMS (2 years, 2016-2018)
- “Integrated technology for custom-made biomimetic implants development used for major bone defects reconstruction” Grant PN-II-RU-TE-2014-4-0590, BioMimBone (2 years, 2014-2016)
- “Combined methods for evaluation of the heavy metals contamination of human beings correlated with human hard tissues metabolism “Contract TE Nr.144/2010 (3 years, 2010-2012)
- “New methods for investigating the mechanisms involved in the tissue-biomaterial interaction”, Grant CNCSIS Theme 11, Cod 190/2002 (3 years, 2002-2004)

### **Project team leader**

- “Advanced research for producing combinatorial coatings of interest for fusion”, Contract CNMP Nr. 72-223/2008, CAPACIF (3 years)
- “Spin valves: from combinatorial methods of processing to performance properties”, Contract CNMP Nr. 71-032/2007, VALS (3 years)
- “Production and study the behavior of coatings of carbon, tungsten and beryllium used in the first wall of thermonuclear fusion facilities”, Contract CEEX nr. 10-89/2006, FUSITERMAT (2 years)
- “Depth analysis on the structural implications resulting from the use of alternative fuels in cement obtaining”, Contract CEEX nr.121/10.10.2005, IARIS (3 years)

## **Member in research teams**

### **International research grants**

- 1) FP6 “Magnesium forged components for structural lightweight automotive applications”, MAGFORGE (3 years)
- 2) FP6-Marie Curie Actions-ToK; Contract nr. 014059/2005; Intensive Program for Transfer of Knowledge to Eastern Europe Reference Pole for Micro- and Nanotechnologies, NANOTEC-EST (3 years)
- 3) FP7-NMP-2007-LARGE-1, Proiect nr.293104/2008, Novel biofunctional polymer scaffolds and techniques for the regeneration and repair of degenerate intervertebral disc, Acronym Disc Regeneration; Collaborative Project; Large-scale integrating project; Work programme topics addressed: NMP-2007-2.3-1 (3 years)
- 4) COST MP0602 - “Advanced Solder Materials for High Temperature Application (HISOLD)”, Contract manager Prof.Dr.Ing. Svasta Paul (3 years)
- 5) COFUND-M-ERA.NET II-BIOMB 2017–2020, Advanced biodegradable materials based on MgB2 resistant to microbial colonization (3 years)
- 6) H2020, GEOCOAT 764086, 2018 – 2021, Development of novel and cost effective corrosion resistant coatings for high temperature geothermal applications (3 years)
- 7) ERASMUS+ “Advanced Higher Education for Battery Lifecycle and Sustainability (BTRexpert)”, 2024-2027 (3 years)
- 8) MSCA Doctoral Networks 2024 (HORIZON-MSCA-2024-DN-01), Regenerative engineering innovation in early intervention of osteoarthritis - 101227121 — RENOVATE , Code: MSCA-DN- RENOVATE-DC8, Title: Biodegradable Mg based alloy for optimal osteochondral scaffolds, Supervisor: Prof Iulian Antoniac (UPB), 2024-2027 (3 years)
- 9) Proiect EELISA - European Engineering Learning Innovation and Science Alliance, Cofinanțare ERASMUS+, Project manager: Prof. Diana Robescu (UPB)

### **National research grants team member or key person**

- 1) Contract BIOTECH Nr.82/2001, Modelarea si cuantificarea interactiilor biomaterialelor si implantelor cu mediul gazda si/sau tesut implantat prin metode avansate, Contract manager Caloianu Maria. (3 years)
- 2) Contract RELANSIN S9 Nr. 1473/2001, Centru de biomateriale, Contract manager Prof.Dr.Ing Zamfir Simona. (3 years)

- 3) Contract RELANSIN S13 Nr. 1474/2001, Realizarea protezelor articulare de șold, Contract manager Brânzei Mihai. (3 years)
- 4) Contract RELANSIN S1 Nr. 22/2002, Studiul proceselor la interfața strat substrat implicate în obținerea biomaterialelor, Contract manager Prof.Dr.Ing. Zamfir Simona. (3 years)
- 5) Contract INVENT S2 Nr. 101/2003, Componenta femurală pentru proteza totală de șold, Contract manager Orban Horia Bogdan. (3 years)
- 6) Contract RELANSIN S3 Nr. 1666/2003, Tehnologie modernă de realizare a grupului rotorice ce echipează compresoarele centrifugale de aer, Contract manager Prof.Dr.Ing. Zamfir Simona. (2 years)
- 7) Contract RELANSIN S1 Nr. 1717 / 2003, Tehnologii moderne de obținere și prelucrare a biomaterialelor metalice destinate implanturilor dentare, Responsabil contract Prof.Dr.Ing. Simona Zamfir. (2 years)
- 8) Contract RELANSIN / Nr. 1740/2003, Tehnologii noi pentru fabricarea de etaloane spectrale din oțeluri și aliaje complexe, Responsabil contract Pencea Ion. (2 years)
- 9) Contract RELANSIN S8 Nr. 1771/2003, Laborator mobil pentru determinarea de la distanță a amprentei termice a tehnicii militare în gama spectrală 2 ? 5?m și 8 ? 12?m, Contract manager Conf.Dr.Ing. Pencea Ion. (2 years)
- 10) Contract RELANSIN S3 Nr. 1868/2003, Realizarea și dezvoltarea unui echipament de ambalat etanș. în folie termo-contractabilă și termosudabilă a produselor sau grupărilor de produse alimentare și nealimentare, Contract manager Moldovan Laurentiu (2 years)
- 11) Contract CERES Nr. 4-116/2004, Cercetari privind influența gradului de prelucrare al suprafeței biomaterialelor metalice asupra proceselor de osteointegrare în tesuturile biologice, Responsabil contract CEEX Prof.dr.ing. Bunea Daniel. (2 years)
- 12) Contract CERES Nr. 4-183/2004, Optimizarea tratamentului termic de durificare cu laser în vederea creșterii rezistenței la uzare-coroziune a oțelurilor inoxidabile, Contract manager Prof.Dr.Ing. Zamfir Simona. (2 years)
- 13) Contract CERES Nr. 4-184/2004, Studiul transformărilor structurale care au loc în straturile superficiale ale oțelurilor inoxidabile supuse acțiunii radiației laser, Contract manager Prof.Dr.Ing. Zamfir Simona. (2 years)
- 14) Contract RELANSIN S3 Nr. 1953/2004, Tehnologii modernizate de producere a conservelor, în conformitate cu cerințele și exigențele pieței uniunii europene, Contract manager Boca Elena. (2 years)
- 15) Contract RELANSIN S3, Subcontract Nr. 1964/2004, Modernizarea echipamentelor și aplicațiilor în transportul și distribuția gazelor naturale prin realizarea și utilizarea de adezivi și paste de etanșare cu proprietăți specifice, APEG, Contract manager Prof.Dr.Fiz. Bojin Dionezie. (2 years)
- 16) Contract RELANSIN S3, PDT, 2025/2004, Realizarea tehnologiei de prelucrare a unor aliaje biocompatibile pe bază de metale nobile, Contract manager Prof.Dr.Ing. Răducanu Doina. (2 ani)
- 17) Contract RELANSIN Nr. 2146/2004, Gamă de depărtătoare autostatice cu multiple aplicații chirurgicale, Contract manager Antoniac Iulian. (1.5 years)
- 18) Contract AGRAL S5, Nr. 267/2004, Realizarea și dezvoltarea unui echipament modern, destinat ambalării produselor alimentare portionate, prin metoda top sealing, Contract manager Antoniac Iulian. (2 years)
- 19) Contract RELANSIN Nr.2001/2004, Studiul heterogenității endoteliale, morfologice și funcționale în insuficiența cardiacă, relevanță hemodinamică. Contract manager Prof.Dr.Ing. Ciucă Ion. (2 years)
- 20) Contract CEEX 46/2005 Retea tehnologica integrata de cercetare a structurilor avansate biocompatibile pentru implanturi dentare, Rete-β-dent, Responsabil contract Prof.dr.ing. Târcolea Mihai. (3 years)
- 21) Contract CEEX Nr. 55/2005, Corelația dintre disfuncția endotelială și afectarea miocardică la pacienții cu diabet zaharat, CARDIAB, Contract manager Prof.Dr.Ing. Coșmeleață Georgeta. (3 years)
- 22) Contract CEEX INFOSOC 43/2005, Sistem informațional privind asigurarea climatului de încredere și a confidențialității documentelor - managementul identității, Si-MI. Contract manager Conf.Dr.Fiz. Pencea Ion. (3 years)
- 23) Contract CEEX Nr. 21/2006, Dinamica și structura fluxului în supraconductorii nanostructurați sau cvasi-bidimensionali, FLUXDIN, Contract manager Prf.Dr.Fiz. Bojin Dionezie. (2 years)
- 24) Contract CEEX Nr. 06-10-82/2006 Cercetari avansate privind dezvoltarea unei structuri de moderare, focalizare și accelerare fascicule de pozitroni monoenergetici în domeniul 0,8- 50 keV, utilizata la determinarile de defecte de tip vacanta sau aglomerari de goluri în materia condensata, TUN POZITRONIC, Contract manager Prof.Dr.Fiz. Bojin Dionezie. (2 years)
- 25) Contract CEEX AMTRANS Nr. X2C30/2006, Materiale multistrat pentru condiții termice extreme în aeronautică. Instalație și metodă de testare, MMCTE, Contract manager Prof.Dr.Fiz. Bojin Dionezie. (3 years)
- 26) Contract Nr. 78GR/2006, Subcontract CNC SIS Cod 91, Modelarea proceselor fizico-chimice în elaborarea unei metode noi, ecologice, de obținere a titanului, Contract manager Prof.Dr.Ing. Târcolea Mihail. (1 year)
- 27) Contract CEEX Nr. 94/2006, Cercetări fundamentale și experimentale privind biomaterialele cu memoria formei cu aplicabilitate în realizarea stenturilor vasculare, Contract manager Prof.Dr.Ing. Ciucă Ion. (2 years)
- 28) Contract CEEX Nr. 116/2006, Studii fundamentale privind integrarea osoasă și epitelio-conjunctivă a implantului dentar în scopul creșterii performanțelor pe termen lung, DIOBONE, Contract manager Prof.Dr.Fiz. Bojin Dionezie. (3 years)

- 29) Contract CEEX RELANSIN Nr. 142/2006, Cercetari privind eco-ingineria produselor de protectie anticorrosiva peliculogene, ECOINGPRO, Contract manager Prof.Dr.Fiz. Bojin Dionezie. (2 years)
- 30) Contract CEEX-VIASAN Nr. 150/2006, Dezvoltarea de noi tehnici Laser pentru proiectarea si fabricarea de biosenzori, BIOSENSOR, Responsabil contract Conf.dr.ing. Ciucă Sorin. (3 years)
- 31) Contract CEEX Relansin Nr. 152/2006, Tehnologii avansate utilizând senzori de proces pentru obținerea de straturi rezistente la uzură, coroziune și oboseală, TEH-DIF-AV, Contract manager Prof.Dr.Ing. Ciucă Ion. (3 years)
- 32) Contract CEEX RENAR P-CONFORM Nr. 164 (2673) /2006, Laborator de evaluare a conformității materialelor și produselor prin încercări spectrochimice de emisie în UV-VIZ (OES) și fluorescență a radiațiilor X (XRF), LECOMP-SPECTRO. (2 years)
- 33) Contract CEEX-VIASAN Nr. 165/2006, Dezvoltarea de tehnici inovative in chirurgia abdominala bazate pe utilizarea unor structuri biointegrabile si dezvoltarea de noi metode de evaluare a biodegradabilitatii acestora, MEBIOS, Responsabil S.I.dr.ing. Antoniac Iulian. (2 years)
- 34) Contract CEEX Nr.166/P1/2006, Cercetari privind preprocesarea materialelor compozite avansate cu matrice metalica MMCs si ceramica CMCs, MAT-COM, Responsabil contract Prof.dr.fiz. Bojin Dionezie. (2 years)
- 35) Contract CEEX Nr. 223/2006, Materiale noi biocompatibile pentru implantologie ortopedica, BIOCOCB, Responsabil contract Prof.dr.ing. Geantă Victor. (2 years)
- 36) Contract CEEX RELANSIN Nr.235/2006, Biofunctionalizarea suprafetei implanturilor pentru osteosinteza, OSTEOSURF, Contract manager S.I.dr.ing. Antoniac Iulian. (2 years)
- 37) Contract CEEX RELANSIN Nr. 287/2006, Tehnologii avansate de mediu pentru reducerea poluării rezultate din deversarea efluenților specifici industriei energetice, utilizând materiale carbonice active cu precursori indigeni ieftini. CARBPOL, Contract manager Prof.Dr.Fiz. Pencea Ion (2 years)
- 38) Contract CEEX RELANSIN Nr. 297/2006, Cercetari privind mecanismul durificarii si stabilitatea la cald a otelurilor de tip maraging, MEDUR, responsabil Conf.dr.ing. Brânzei Mihai. (2 years)
- 39) Contract CEEX RELANSIN Nr. 301-2006, Metode, procedee performante și aplicații tehnologice privind integrarea de noi materiale în dezvoltarea conceptuală a componentelor modulare, multifuncționale și de înaltă precizie utilizate în cadrul sistemelor inteligente de prelucrare. Contract manager Prof.Dr.Ing. Ciucă Ion. (2 years)
- 40) Contract CNMP Nr. 31-001/2007, Sistem mobil de monitorizare rapidă a agenților biologici și chimici pentru obiective de importanță strategică, Contract manager Prof.Dr.Fiz. Bojin Dionezie. (3 years)
- 41) Contract Nr. 71-008-1/2007, Materiale avansatemicrocristaline cu aplicații în utilizarea energiei electrice, MICROMAT, Contract manager Prof.Dr.Ing. Moldovan Petru. (2 years)
- 42) Contract CNMP Nr. 71-059/2007, Tehnologii inovative de realizare a unor produse din aliaje tip Permalloy competitive la export PERMATECH, Contract manager Prof.Dr.Ing. Șaban Rami. (3 years)
- 43) Contract CNMP Nr. 71-080/2007, Materiale multifuncționale cu efect bioactiv destinate implantologiei MULTIBIOMAT, Contract manager Prof.Dr.Ing. Coșmeleață Georgeta. (3 years)
- 44) Contract CNMP Nr. 81-002/2007, Sistem mobil de detecție, identificare și monitorizare biologică și chimică, LITECAT, Contract manager Prof.Dr.Fiz. Bojin Dionezie. (3 years)
- 45) Contract INOVARE Nr. 115/2007, Tehnologii integrate pentru realizarea unor materiale biocompatibile complexe, BIOCOMPLEXMAT, Contract manager Prof.Dr.Ing. Coșmeleață Georgeta. (2 years)
- 46) Contract CNMP Nr. 32-165/2008, Medii de epurare controlată a apelor contaminate chimic și biologic, Contract manager Prof.Dr.Fiz. Bojin Dionezie. (3 years)
- 47) Contract Nr. 42-132/2008, "Parteneriate in domeniile prioritare", Programul 4, Domeniul 4, Dispozitiv medical pentru tratarea afectiunilor articulare bazat pe nanomateriale si efectele campului magnetic, ARTROMAG, Contract manager Marinescu Rodica. (3 years)
- 48) Contract Nr. 72-180/2008, "Parteneriate in Domeniile Prioritare", Domeniul 7, Programul 4, Materiale nanostructurate pentru functionalizarea suprafetelor endoprotezelor articulare cu uzura redusa - COAT4JOINTS, Contract manager Antoniac Iulian. (3 years)
- 49) Contract Nr. 72-192/2008, "Parteneriate in domeniile prioritare", Domeniul 7, Programul 4, Implante resorbabile utilizate in artroscopie realizate din biomateriale biomimetice, AURABIOMAT, Contract manager Antoniac Iulian. (3 years)
- 50) Contract Nr. 72-221/2008, "Parteneriate in domeniile prioritare", Metodă nouă de protecție anticorozivă a materialelor din oțel prin electrodepunerea de filme subțiri din aliaje ternare Zn-Ni-P, Contract manager Prof.Dr.Ing. Târcolea Mihail. (3 years)
- 51) Contract nr. 175/2012, Straturi subțiri biocompatibile pentru îmbunătățirea aderenței ceramică-metal în restaurările dentare –COST4DENT, Contract manager S.I.Dr.Ing. Cosmin Cotruț. (3 years)
- 52) PN-II-PT-PCCA-2013-4-1296, Complex systems with deformable structure for ballistic protection of armored vehicles involved in asymmetric conflicts
- 53) PN-II-PT-PCCA-2013-4-2119, Therapeutic strategies for enhancing bone healing response by using bioactive coatings for bioabsorbable magnesium-based implants
- 54) PN-II-PT-PCCA-2013-4-2267, Biodegradable implants from magnesium alloys used in foot and ankle surgery

- 55) PN-II-PT-PCCA-2013-4-1958, Multifunctional coatings for load bearing implants made of a novel titanium-based alloy
- 56) PN-II-PT-PCCA-2013-4-2287, Magnetic biomimetic scaffolds as alternative strategy for bone tissue repair and engineering
- 57) PN-II-PT-PCCA-2013-4-1048, New high entropy alloys/composites with superior mechanical and corrosion resistance characteristics, for high temperature applications
- 58) PN-II-PT-PCCA-2013-4-1065, MgB<sub>2</sub> based superconducting tapes
- 59) PN-II-RU-TE-2014-4-0292, Nanostructured membrane reactors for derivatization and doping of carbon nanotubes and graphenes
- 60) PN-III-P2-2.1-BG-2016-0455, Nanoencapsulated eugenol advanced compounds with addressability in dental medicine
- 61) PN-III-P3-3.1-PM-RO-CN-2018-0201, Composite scaffolds with biological functions for bone tissue engineering
- 62) PN-III-P1-1.2-PCCDI-2017-0239, Obtaining and expertise of new biocompatible materials for medical applications
- 63) PN-III-P1-1.1-PD-2019-0745 / SCTHPB, Sinteza, caracterizarea și testarea barierelor de permeație a hidrogenului (HPB) aplicate ca măsură de siguranță
- 64) PCE 239/2021, Hemodialysis combined with stimuli responsive drug delivery - a new generation of polymeric membranes for advanced biomedical applications (HemDelStim)

### National and International Awards

- 2<sup>nd</sup> place at the International Conference Journées Scientifiques du CFBD, 2003, Neuchâtel, l'Espace Perrier de Marin-Epanier, Suisse (D.Bunea, D.Bojin, S.Zamfir, F.Miculescu, M.Miculescu, Experimental research concerning the Co-Cr-Mo alloys used in implantology)
- SRB Award, Poster Session at the 5<sup>th</sup> International Conference Bioremed, 2005, Iasi, Romania (F. Miculescu, I.V. Antoniac, M. Miculescu, L.T. Ciocan, Influence of the implant surface preparation on the bone ingrowth)
- SRB Scholarship, awarded by the Romanian Society for Biomaterials in 2007
- 4<sup>th</sup> place, at the 13<sup>th</sup> Edition of the National Contest for Scientific-Technic Creations, awarded by the Romanian Society of Metallurgy (SRM)
- SRB Excellence Award, for the contribution in the biomaterials field in 2016
- Grand Prize and Cup, in recognition of high scientific contribution and loyalty to the 22<sup>nd</sup> International Salon of Research, Innovation and Technological Transfer Inventica 2017, 28-30<sup>th</sup> of June, Iasi, Romania
- Gold Medal Inventica 2017, for the invention "Mechano - electric laundry dryer", at the 22<sup>nd</sup> International Salon of Research, Innovation and Technological Transfer Inventica 2017, 28-30<sup>th</sup> of June, Iasi, Romania
- Gold Medal Inventica 2017, for the invention "Method for obtaining scaffolds with predetermined physico-chemical characteristics for major bone reconstruction", at the 22<sup>nd</sup> International Salon of Research, Innovation and Technological Transfer Inventica 2017, 28-30<sup>th</sup> of June, Iasi, Romania
- Excellence Diploma and Gold Medal for the invention "Mechano - electric laundry dryer", at the International Salon of Research Innovation and Inventics Rolnvent, 15<sup>th</sup> edition, 2017, Cluj-Napoca, Romania
- Gold Medal, for the invention "Method for obtaining scaffolds with predetermined physico-chemical characteristics for major bone reconstruction", at the "Traian Vuia" Inventions and Innovations International Salon 3<sup>rd</sup> edition, 7-9<sup>th</sup> of June 2017, Timisoara, Romania
- Gold Medal, for the invention "Mechano - electric laundry dryer", at the "Traian Vuia" Inventions and Innovations International Salon 3<sup>rd</sup> edition, 7-9<sup>th</sup> of June 2017, Timisoara, Romania
- Excellence Diploma and Special Prize (Trophy), for valuable inventions (RO001/2017), at the "Traian Vuia" Inventions and Innovations International Salon, 3<sup>rd</sup> edition, 7-9<sup>th</sup> of June 2017, Timisoara, Romania
- Prize of the Romanian Inventors Forum, at the European Exhibition of Creativity and Innovation Euroinvent 2017, 25-27<sup>th</sup> of May 2017, Iasi, Romania
- Gold Medal, for the invention "Method for obtaining scaffolds with predetermined physico-chemical characteristics for major bone reconstruction", at the European Exhibition of Creativity and Innovation Euroinvent 2017, 25-27<sup>th</sup> of May 2017, Iasi, Romania
- Gold Medal, for the invention "Mechano - electric laundry dryer" at the European Exhibition of Creativity and Innovation Euroinvent 2017, 25-27<sup>th</sup> of May 2017, Iasi, Romania
- Excellence Diploma, from the Technical University of Moldova, for the invention "Mechano - electric laundry dryer"
- Excellence Diploma and Gold Medal, for the patent application "Method for obtaining scaffolds with predetermined physico-chemical characteristics for major bone reconstruction", at the International Fair of Inventions and Practical Ideas Invent Invest 2017, 12-15<sup>th</sup> of November 2017, Ungheni, Republica Moldova

- Gold Medal and 4<sup>th</sup> place, for the patent "Method for obtaining scaffolds with predetermined physico-chemical characteristics for major bone reconstruction", at the International Warsaw Invention Show IWIS 2017, Poland
- SRB Excellence Award, for the contribution in the biomaterials field in 2018
- Diploma of Excellence and Gold Medal, for the patent application "Method for obtaining scaffolds with predetermined physico-chemical characteristics for major bone reconstruction", at the International Exhibition of Scientific Research, Innovation and Inventions Pro Invent, 16<sup>th</sup> edition, 21-23<sup>rd</sup> of March 2018, Cluj-Napoca, Romania
- Diploma of Excellence and Gold Medal, for the patent application "Method for obtaining scaffolds with predetermined physico - chemical characteristics for major bone reconstruction", at the "Traian Vuia '19" Salon 5<sup>th</sup> edition, 12-14<sup>th</sup> of June 2019, Timisoara, Romania
- Certificate of Excellence, for the invention "Mechano - electric laundry dryer", at the at the "Traian Vuia '19" Salon 5<sup>th</sup> edition, 12-14<sup>th</sup> of June 2019, Timisoara, Romania
- Diploma of Excellence "King Michael the 1<sup>st</sup> of Romania" of USAMVB from Timisoara, for the patent application "Method for obtaining scaffolds with predetermined physico-chemical characteristics for major bone reconstruction", at the "Traian Vuia '19" Salon 5<sup>th</sup> edition, 12-14<sup>th</sup> of June 2019, Timisoara, Romania
- Special Award of the UMFT "Victor Babes" from Timisoara, for the patent application "Method for obtaining scaffolds with predetermined physico-chemical characteristics for major bone reconstruction", at the "Traian Vuia '19" Salon 5<sup>th</sup> edition, 12-14<sup>th</sup> of June 2019, Timisoara, Romania
- Diploma of Excellence and Inventory Medal 2019, for the invention "Mechano - electric laundry dryer", at the 22<sup>nd</sup> International Salon of Inventory and Exhibition 2019, 26-28<sup>th</sup> of June, Iasi, Romania
- Special Award from the Chinese Innovation & Invention Society (Taiwan) for the Patent "Method for obtaining scaffolds with predetermined physico-chemical characteristics for major bone reconstruction", at the XIII<sup>th</sup> International Warsaw Invention Show "IWIS", 16<sup>th</sup> of October 2019, Warsaw, Poland
- Gold Medal for the Patent "Method for obtaining scaffolds with predetermined physico-chemical characteristics for major bone reconstruction", at the XIII<sup>th</sup> International Warsaw Invention Show "IWIS", 16<sup>th</sup> of October 2019, Warsaw, Poland
- Certificate of Excellence for the Patent "Mechano – electric laundry dryer", from the "Iustin Capră" Association of Inventors, 2019
- Gold Medal for the Patent "Method for obtaining scaffolds with predetermined physico-chemical characteristics for major bone reconstruction", at the Hrvatski Salon Inovacija S Medunarodnim Sudjelovanjem - INOVA, 13-16<sup>th</sup> of November 2019, Zagreb, Croatia
- Special Award by Norton University for the Patent "Method for obtaining scaffolds with predetermined physico-chemical characteristics for major bone reconstruction", at the Hrvatski Salon Inovacija S Medunarodnim Sudjelovanjem - INOVA, 13-16<sup>th</sup> of November 2019, Zagreb, Croatia
- Special Honour of Invention from TISIAS Toronto International Society of Innovation & Advanced Skills, for the Patent "Method for obtaining scaffolds with predetermined physico-chemical characteristics for major bone reconstruction", at the Hrvatski Salon Inovacija S Medunarodnim Sudjelovanjem - INOVA, 13-16<sup>th</sup> of November 2019, Zagreb, Croatia
- Gold medal for the invention "Method for obtaining scaffolds with predetermined physico-chemical characteristics for major bone reconstruction", at the 14<sup>th</sup> International Invention and Innovation Show INTARG Poland, 2021
- Special Award of Polish Patent Office for the invention "Method for obtaining scaffolds with predetermined physico-chemical characteristics for major bone reconstruction", at the 14<sup>th</sup> International Invention and Innovation Show INTARG Poland, 2021
- Certificate of Excellence presented to Prof. F. Miculescu, in recognition of outstanding creativity and profound knowledge presented by Invention - Innovation at the 6<sup>th</sup> International Invention and Innovation Competition in Canada, ICAN 2021, August 29<sup>th</sup> 2021, Toronto, Canada
- Gold Medal for the invention "Method for obtaining scaffolds with predetermined physico-chemical characteristics for major bone reconstruction", at the 6<sup>th</sup> Annual International Invention and Innovation Competition in Canada, iCAN 2021, August 29<sup>th</sup> 2021, Toronto, Canada
- Gold Medal for the invention "Custom made implant from bioresorbable materials for internal and external fixation of the long bone fractures", at the Kaohsiung International Invention & Design Expo, 2-4 December, 2021, Kaohsiung, Taiwan
- Gold Medal for the invention "Process for obtaining a product for the reconstruction of bone defects based on hydroxyapatite and biogenic biphasic calcium phosphate", at the Kaohsiung International Invention & Design Expo, 2-4 December, 2021, Kaohsiung, Taiwan
- Diploma of Excellence and Gold Medal for the invention "Process for obtaining a product for the reconstruction of bone defects based on hydroxyapatite and biogenic biphasic calcium phosphate", at the EIS Euroinvent 21, 17-20 November 2021, Chişinău, Republica Moldova

- Gold Medal for the invention “Custom made implant from bioresorbable materials for internal and external fixation of the long bone fractures”, at the INOVA 2021, 45th International Invention Show, 13-16 Octombrie 2021, Zagreb, Croatia
- Gold Medal for the invention “ Process for obtaining a product for the reconstruction of bone defects based on hydroxyapatite and biogenic biphasic calcium phosphate”, at the INOVA 2021, 45th International Invention Show, 13-16 Octombrie 2021, Zagreb, Croatia
- Diploma and Special Award for the invention “ Process for obtaining a product for the reconstruction of bone defects based on hydroxyapatite and biogenic biphasic calcium phosphate”, at EUROINVENT 2021, Iași, România
- Gold Medal for the invention Custom Made Implant From Bioresorbable Materials for Internal Fixation of Long Bone Fractures, to Florin Miculescu, Otilia Ilie, Augustin Semenescu, Mihnea-Cosmin Costoiu, Valeriu Gheorghita, Alexandru Marin, at the 7th Annual International Invention Innovation Competition in Canada, iCan 2022, organized by Toronto International Society of Innovation and Advanced Skills, August 27th, 2022, Toronto Canada
- OCIIIP Special Award (Organization for Creativity Innovation and Invention Promotion) for the Invention Custom Made Implant From Bioresorbable Materials for Internal Fixation of Long Bone Fractures, to Florin Miculescu, Otilia Ilie, Augustin Semenescu, Mihnea-Cosmin Costoiu, Valeriu Gheorghita, Alexandru Marin, at the 7th Annual International Invention Innovation Competition in Canada, iCan 2022, organized by Toronto International Society of Innovation and Advanced Skills, August 27th, 2022, Toronto Canada
- Gold Medal for the Invention Surface Acoustic Wave Biosensor Based on Graphene Functionalized with Anti-Alpha-Fetoprotein Monoclonal Antibody, for the Diagnosis of Liver Cancer, to Voicu Ioan Stefan, Palla-Papavlu Alexandra, Antoniac Vasile Iulian, Miculescu Florin, Semenescu Augustin, Costoiu Mihnea Cosmin, Mates Ileana-Mariana, Prisecaru Delia -Alexandra, at the 7th Annual International Invention Innovation Competition in Canada, iCan 2022, organized by Toronto International Society of Innovation and Advanced Skills, August 27th, 2022, Toronto Canada
- Organiser’s Choice Award for the Invention Surface Acoustic Wave Biosensor Based on Graphene Functionalized with Anti-Alpha-Fetoprotein Monoclonal Antibody, for the Diagnosis of Liver Cancer, to Voicu Ioan Stefan, Palla-Papavlu Alexandra, Antoniac Vasile Iulian, Miculescu Florin, Semenescu Augustin, Costoiu Mihnea Cosmin, Mates Ileana-Mariana, Prisecaru Delia -Alexandra, at the 7th Annual International Invention Innovation Competition in Canada, iCan 2022, organized by Toronto International Society of Innovation and Advanced Skills, August 27th, 2022, Toronto Canada
- Canadian Special Award of Excellence for the Invention Surface Acoustic Wave Biosensor Based on Graphene Functionalized with Anti-Alpha-Fetoprotein Monoclonal Antibody, for the Diagnosis of Liver Cancer, to Voicu Ioan Stefan, Palla-Papavlu Alexandra, Antoniac Vasile Iulian, Miculescu Florin, Semenescu Augustin, Costoiu Mihnea Cosmin, Mates Ileana-Mariana, Prisecaru Delia -Alexandra, at the 7th Annual International Invention Innovation Competition in Canada, iCan 2022, organized by Toronto International Society of Innovation and Advanced Skills, August 27th, 2022, Toronto Canada
- Gold Medal, for the invention Manufacturing Process of a Product Destined for Bone Defects Reconstruction, Based on Hydroxiapatite and Biogenic Biphasic Calcium Phosphate, to Florin Miculescu, Aura Mocanu, George Stan, Iulian Antoniac, Mihnea Cosmin Costoiu, Stefan Voicu, Marian Miculescu, Ileana Mates, Augustin Semenescu, at the 7th Annual International Invention Innovation Competition in Canada, iCan 2022, organized by Toronto International Society of Innovation and Advanced Skills, August 27th, 2022, Toronto Canada
- Special Award of TISIAS - Toronto International Society of Innovation and Advanced Skills, for the invention Manufacturing Process of a Product Destined for Bone Defects Reconstruction, Based on Hydroxiapatite and Biogenic Biphasic Calcium Phosphate, to Florin Miculescu, Aura Mocanu, George Stan, Iulian Antoniac, Mihnea Cosmin Costoiu, Stefan Voicu, Marian Miculescu, Ileana Mates, Augustin Semenescu, at the 7th Annual International Invention Innovation Competition in Canada, iCan 2022, organized by Toronto International Society of Innovation and Advanced Skills, August 27th, 2022, Toronto Canada
- Diploma of Honour & Gold Medal for the invention Manufacturing Process of a Product Destined for Bone Defects Reconstruction, Based on Hydroxiapatite and Biogenic Biphasic Calcium Phosphate, to Florin Miculescu, Aura Mocanu, George Stan, Iulian Antoniac, Mihnea Cosmin Costoiu, Stefan Voicu, Marian Miculescu, Ileana Mates, Augustin Semenescu, at the XXVIth International Exhibition of Inventics Inventica 2022, 22-24 June 2022, Iasi, România
- Diploma of Honour & Silver Medal for the invention Custom Made Implant from Bioresorbable Materials for Internal Fixation of Long Bone Fractures, to Florin Miculescu, Otilia Ilie, Augustin Semenescu, Mihnea-Cosmin Costoiu, Valeriu Gheorghita, Alexandru Marin, at the XXVIth International Exhibition of Inventics Inventica 2022, 22-24 June 2022, Iasi, România
- Special Award for the invention Manufacturing Process of a Product Destined for Bone Defects Reconstruction, Based on Hydroxiapatite and Biogenic Biphasic Calcium Phosphate, to Florin Miculescu, Aura Mocanu, George Stan, Iulian Antoniac, Mihnea Cosmin Costoiu, Stefan Voicu, Marian Miculescu, Ileana Mates, Augustin Semenescu, at the XXVIth International Exhibition of Inventics Inventica 2022, 22-24 June 2022, Iasi, România
- Special Award for the invention Surface Acoustic Wave Biosensor Based on Graphene Functionalized with Anti-Alpha-Fetoprotein Monoclonal Antibody, for the Diagnosis of Liver Cancer, to Voicu Ioan Stefan, Palla-Papavlu

Alexandra, Antoniac Vasile Iulian, Miculescu Florin, Semenescu Augustin, Costoiu Mihnea Cosmin, Mates Ileana-Mariana, Prisecaru Delia at the Budi Uzor Inova 18th Invention and Prototype Show and Student Business Plan Competition – Be The Role Model – 2022, at the 46th International Invention Show – INOVA October 2022, Osijek, Croatia

- Gold Medal for the invention Manufacturing Process of a Product Destined for Bone Defects Reconstruction, Based on Hydroxiapatite and Biogenic Biphasic Calcium Phosphate, to Florin Miculescu, Aura Mocanu, George Stan, Iulian Antoniac, Mihnea Cosmin Costoiu, Stefan Voicu, Marian Miculescu, Ileana Mates, Augustin Semenescu, at the Budi Uzor Inova 18th Invention and Prototype Show and Student Business Plan Competition – Be The Role Model – 2022, at the 46th International Invention Show – INOVA October 2022, Osijek, Croatia
- Gold Medal for the invention Custom Made Implant From Bioresorbable Materials for Internal Fixation of Long Bone Fractures, to Florin Miculescu, Otilia Ilie, Augustin Semenescu, Mihnea-Cosmin Costoiu, Valeriu Gheorghita, Alexandru Marin, at the Budi Uzor Inova 18th Invention and Prototype Show and Student Business Plan Competition – Be The Role Model – 2022, at the 46th International Invention Show – INOVA 12-15 October 2022, Osijek, Croatia
- WIIPA Special Award for the invention Manufacturing Process of a Product Destined for Bone Defects Reconstruction, Based on Hydroxiapatite and Biogenic Biphasic Calcium Phosphate, to Florin Miculescu, Aura Mocanu, George Stan, Iulian Antoniac, Mihnea Cosmin Costoiu, Stefan Voicu, Marian Miculescu, Ileana Mates, Augustin Semenescu, at the Budi Uzor Inova 18th Invention and Prototype Show and Student Business Plan Competition – Be The Role Model – 2022, at the 46th International Invention Show – INOVA 12-15 October 2022, Osijek, Croatia
- Excellence Award and Gold Medal of the National Institute for Research and Development in Chemistry and Pedochemistry, ICECHIM, for the invention Manufacturing Process of a Product Destined for Bone Defects Reconstruction, Based on Hydroxiapatite and Biogenic Biphasic Calcium Phosphate, to Florin Miculescu, Aura Mocanu, George Stan, Iulian Antoniac, Mihnea Cosmin Costoiu, Stefan Voicu, Marian Miculescu, Ileana Mates, Augustin Semenescu, at the Budi Uzor Inova 18th Invention and Prototype Show and Student Business Plan Competition – Be The Role Model – 2022, at the 46th International Invention Show – INOVA October 2022, Osijek, Croatia
- Special Award of the TISIAS – Toronto International Society of Innovation and Advanced Skills for the invention Custom Made Implant From Bioresorbable Materials for Internal Fixation of Long Bone Fractures, to Florin Miculescu, Otilia Ilie, Augustin Semenescu, Mihnea-Cosmin Costoiu, Valeriu Gheorghita, Alexandru Marin, at the Budi Uzor Inova 18th Invention and Prototype Show and Student Business Plan Competition – Be The Role Model – 2022, at the 46th International Invention Show – INOVA October 2022, Osijek, Croatia
- WIIPA Special Award for the invention Custom Made Implant from Bioresorbable Materials for Internal Fixation of Long Bone Fractures, to Florin Miculescu, Otilia Ilie, Augustin Semenescu, Mihnea-Cosmin Costoiu, Valeriu Gheorghita, Alexandru Marin, at the Budi Uzor Inova 18th Invention and Prototype Show and Student Business Plan Competition – Be The Role Model – 2022, at the 46th International Invention Show – INOVA 12-15 October 2022, Osijek, Croatia
- WIIPA Special Award for the invention Surface Acoustic Wave Biosensor Based on Graphene Functionalized with Anti-Alpha-Fetoprotein Monoclonal Antibody, for the Diagnosis of Liver Cancer, to Voicu Ioan Stefan, Palla-Papavlu Alexandra, Antoniac Vasile Iulian, Miculescu Florin, Semenescu Augustin, Costoiu Mihnea Cosmin, Mates Ileana-Mariana, Prisecaru Delia, at the Budi Uzor Inova 18th Invention and Prototype Show and Student Business Plan Competition – Be The Role Model – 2022, at the 46th International Invention Show – INOVA 12-15 October 2022, Osijek, Croatia
- Certificate of Excellence and Special Award of the Innovation & Technology Transfer Office UPT for the invention Manufacturing Process of a Product Destined for Bone Defects Reconstruction, Based on Hydroxiapatite and Biogenic Biphasic Calcium Phosphate, to Florin Miculescu, Aura Mocanu, George Stan, Iulian Antoniac, Mihnea Cosmin Costoiu, Stefan Voicu, Marian Miculescu, Ileana Mates, Augustin Semenescu, at the Budi Uzor Inova 18th Invention and Prototype Show and Student Business Plan Competition – Be The Role Model – 2022, at the 46th International Invention Show – INOVA 12-15 October 2022, Osijek, Croatia
- Certificate of Appreciation from the IBS GLOBAL for the invention Surface Acoustic Wave Biosensor Based on Graphene Functionalized with Anti-Alpha-Fetoprotein Monoclonal Antibody, for the Diagnosis of Liver Cancer, to Voicu Ioan Stefan, Palla-Papavlu Alexandra, Antoniac Vasile Iulian, Miculescu Florin, Semenescu Augustin, Costoiu Mihnea Cosmin, Mates Ileana-Mariana, Prisecaru Delia, at the Budi Uzor Inova 18th Invention and Prototype Show and Student Business Plan Competition – Be The Role Model – 2022, at the 46th International Invention Show – INOVA 12-15 October 2022, Osijek, Croatia
- Certificate of Appreciation from the IBS GLOBAL for the invention Manufacturing Process of a Product Destined for Bone Defects Reconstruction, Based on Hydroxiapatite and Biogenic Biphasic Calcium Phosphate, to Florin Miculescu, Aura Mocanu, George Stan, Iulian Antoniac, Mihnea Cosmin Costoiu, Stefan Voicu, Marian Miculescu, Ileana Mates, Augustin Semenescu, at the Budi Uzor Inova 18th Invention and Prototype Show and Student Business Plan Competition – Be The Role Model – 2022, at the 46th International Invention Show – INOVA 12-15 October 2022, Osijek, Croatia
- Canadian Special Award of Excellence for the invention Manufacturing Process of a Product Destined for Bone Defects Reconstruction, Based on Hydroxiapatite and Biogenic Biphasic Calcium Phosphate, to Florin Miculescu, Aura

Mocanu, George Stan, Iulian Antoniac, Mihnea Cosmin Costoiu, Stefan Voicu, Marian Miculescu, Ileana Mates, Augustin Semenescu, at the Budi Uzor Inova 18th Invention and Prototype Show and Student Business Plan Competition – Be The Role Model – 2022, at the 46th International Invention Show – INOVA 12-15 October 2022, Osijek, Croatia

- Diploma de Excelenta și Medalia de Aur din partea Universității de Stat de Medicina și Farmacie Nicolae Testemitanu din Republica Moldova for the invention Manufacturing Process of a Product Destined for Bone Defects Reconstruction, Based on Hydroxiapatite and Biogenic Biphasic Calcium Phosphate, to Florin Miculescu, Aura Mocanu, George Stan, Iulian Antoniac, Mihnea Cosmin Costoiu, Stefan Voicu, Marian Miculescu, Ileana Mates, Augustin Semenescu, at the XXVIth International Exhibition of Inventics Inventica 2022, 22-24 June 2022, Iasi, România
- Excellence in Innovation Award of the Romanian Inventors Forum for the invention Manufacturing Process of a Product Destined for Bone Defects Reconstruction, Based on Hydroxiapatite and Biogenic Biphasic Calcium Phosphate, to Florin Miculescu, Aura Mocanu, George Stan, Iulian Antoniac, Mihnea Cosmin Costoiu, Stefan Voicu, Marian Miculescu, Ileana Mates, Augustin Semenescu, at the XXVIth International Exhibition of Inventics Inventica 2022, 22-24 June 2022, Iasi, România
- Excellence Award and Gold Medal of the Romanian Association of Pteridology for the invention Manufacturing Process of a Product Destined for Bone Defects Reconstruction, Based on Hydroxiapatite and Biogenic Biphasic Calcium Phosphate, to Florin Miculescu, Aura Mocanu, George Stan, Iulian Antoniac, Mihnea Cosmin Costoiu, Stefan Voicu, Marian Miculescu, Ileana Mates, Augustin Semenescu, at the XXVIth International Exhibition of Inventics Inventica 2022, 22-24 June 2022, Iasi, România
- Excellence Award and Gold Medal of the Romanian Association of Pteridology for the invention Custom Made Implant From Bioresorbable Materials for Internal Fixation of Long Bone Fractures, to Florin Miculescu, Otilia Ilie, Augustin Semenescu, Mihnea-Cosmin Costoiu, Valeriu Gheorghită, Alexandru Marin, at the XXVIth International Exhibition of Inventics Inventica 2022, 22-24 June 2022, Iasi, România
- Special Award of the National Institute for Research and Development in Chemistry and Pteridology, ICECHIM for the invention Manufacturing Process of a Product Destined for Bone Defects Reconstruction, Based on Hydroxiapatite and Biogenic Biphasic Calcium Phosphate, to Florin Miculescu, Aura Mocanu, George Stan, Iulian Antoniac, Mihnea Cosmin Costoiu, Stefan Voicu, Marian Miculescu, Ileana Mates, Augustin Semenescu, at the XXVIth International Exhibition of Inventics Inventica 2022, 22-24 June 2022, Iasi, România
- Special Award of the Universitatea Politehnica Timisoara for the invention Manufacturing Process of a Product Destined for Bone Defects Reconstruction, Based on Hydroxiapatite and Biogenic Biphasic Calcium Phosphate, to Florin Miculescu, Aura Mocanu, George Stan, Iulian Antoniac, Mihnea Cosmin Costoiu, Stefan Voicu, Marian Miculescu, Ileana Mates, Augustin Semenescu, at the XXVIth International Exhibition of Inventics Inventica 2022, 22-24 June 2022, Iasi, România
- The Golden Medal of Universitatea Stefan cel Mare Suceava for the invention Custom Made Implant From Bioresorbable Materials for Internal Fixation of Long Bone Fractures, to Florin Miculescu, Otilia Ilie, Augustin Semenescu, Mihnea-Cosmin Costoiu, Valeriu Gheorghită, Alexandru Marin, at the XXVIth International Exhibition of Inventics Inventica 2022, 22-24 June 2022, Iasi, România
- Special Prize of the “Lucian Blaga” University of Sibiu for the invention Surface Acoustic Wave Biosensor Based on Graphene Functionalized with Anti-Alpha-Fetoprotein Monoclonal Antibody, for the Diagnosis of Liver Cancer, to Voicu Ioan Stefan, Palla-Papavlu Alexandra, Antoniac Vasile Iulian, Miculescu Florin, Semenescu Augustin, Costoiu Mihnea Cosmin, Mates Ileana-Mariana, Prisecaru Delia, at the 20-th International Exhibition of Research, Innovations and Inventions, PRO INVENT 2022, October 26-28, 2022, Cluj-Napoca, România
- Premiul Societatii Absolventilor Universității Tehnice din Cluj- Napoca “Ad Absolutum” for the invention Surface Acoustic Wave Biosensor Based on Graphene Functionalized with Anti-Alpha-Fetoprotein Monoclonal Antibody, for the Diagnosis of Liver Cancer, to Voicu Ioan Stefan, Palla-Papavlu Alexandra, Antoniac Vasile Iulian, Miculescu Florin, Semenescu Augustin, Costoiu Mihnea Cosmin, Mates Ileana-Mariana, Prisecaru Delia, at the 20-th International Exhibition of Research, Innovations and Inventions, PRO INVENT 2022, October 26-28, 2022, Cluj-Napoca, România
- Diploma de Excelență și Medalia de Aur for the invention Surface Acoustic Wave Biosensor Based on Graphene Functionalized with Anti-Alpha-Fetoprotein Monoclonal Antibody, for the Diagnosis of Liver Cancer, to Voicu Ioan Stefan, Palla-Papavlu Alexandra, Antoniac Vasile Iulian, Miculescu Florin, Semenescu Augustin, Costoiu Mihnea Cosmin, Mates Ileana-Mariana, Prisecaru Delia, at the 20-th International Exhibition of Research, Innovations and Inventions, PRO INVENT 2022, October 26-28, 2022, Cluj-Napoca, România
- Diploma de Excelență și Medalia de Aur for the invention Custom Made Implant From Bioresorbable Materials for Internal Fixation of Long Bone Fractures, to Florin Miculescu, Otilia Ilie, Augustin Semenescu, Mihnea-Cosmin Costoiu, Valeriu Gheorghită, Alexandru Marin, at the 20-th International Exhibition of Research, Innovations and Inventions, PRO INVENT 2022, October 26-28, 2022, Cluj-Napoca, România
- Diploma de Excelență și Medalia de Aur for the invention Manufacturing Process of a Product Destined for Bone Defects Reconstruction, Based on Hydroxiapatite and Biogenic Biphasic Calcium Phosphate, to Florin Miculescu, Aura Mocanu, George Stan, Iulian Antoniac, Mihnea Cosmin Costoiu, Stefan Voicu, Marian Miculescu, Ileana Mates,

- Augustin Semenescu, at the 20-th International Exhibition of Research, Innovations and Inventions, PRO INVENT 2022, October 26-28, 2022, Cluj-Napoca, România
- Special Award from the National Institute for Research and Development in Chemistry and Pedochemistry, ICECHIM for the invention Manufacturing Process of a Product Destined for Bone Defects Reconstruction, Based on Hydroxiapatite and Biogenic Biphasic Calcium Phosphate, to Florin Miculescu, Aura Mocanu, George Stan, Iulian Antoniac, Mihnea Cosmin Costoiu, Stefan Voicu, Marian Miculescu, Ileana Mates, Augustin Semenescu, at the 20-th International Exhibition of Research, Innovations and Inventions, PRO INVENT 2022, October 26-28, 2022, Cluj-Napoca, România
  - Medalia și Diploma de Excelență a Universității de Științe Agronomice și Medicină Veterinară din București for the invention Manufacturing Process of a Product Destined for Bone Defects Reconstruction, Based on Hydroxiapatite and Biogenic Biphasic Calcium Phosphate, to Florin Miculescu, Aura Mocanu, George Stan, Iulian Antoniac, Mihnea Cosmin Costoiu, Stefan Voicu, Marian Miculescu, Ileana Mates, Augustin Semenescu, at the 20-th International Exhibition of Research, Innovations and Inventions, PRO INVENT 2022, October 26-28, 2022, Cluj-Napoca, România
  - Diploma de Excelență cu Medalie de Aur din partea Universității de Stat de Medicină și Farmacie „Nicolae Testimiteanu” din Republica Moldova, for the invention Surface Acoustic Wave Biosensor Based on Graphene Functionalized with Anti-Alpha-Fetoprotein Monoclonal Antibody, for the Diagnosis of Liver Cancer, to Voicu Ioan Stefan, Palla-Papavlu Alexandra, Antoniac Vasile Iulian, Miculescu Florin, Semenescu Augustin, Costoiu Mihnea Cosmin, Mates Ileana-Mariana, Prisecaru Delia, la Salonul Internațional de Invenții și Inovații ”Traian Vuia” ediția a VIII-a, 8-10 Octombrie 2022, Timisoara, Romania
  - Diploma de Excelență a Universității de Științe Agronomice și Medicină Veterinară din București for the invention Manufacturing Process of a Product Destined for Bone Defects Reconstruction, Based on Hydroxiapatite and Biogenic Biphasic Calcium Phosphate, to Florin Miculescu, Aura Mocanu, George Stan, Iulian Antoniac, Mihnea Cosmin Costoiu, Stefan Voicu, Marian Miculescu, Ileana Mates, Augustin Semenescu, la Salonul Internațional de Invenții și Inovații ”Traian Vuia” ediția a VIII-a, 8-10 Octombrie 2022, Timisoara, Romania
  - Diploma de Excelență a Universității de Științe Agronomice și Medicină Veterinară din București for the invention Surface Acoustic Wave Biosensor Based on Graphene Functionalized with Anti-Alpha-Fetoprotein Monoclonal Antibody, for the Diagnosis of Liver Cancer, to Voicu Ioan Stefan, Palla-Papavlu Alexandra, Antoniac Vasile Iulian, Miculescu Florin, Semenescu Augustin, Costoiu Mihnea Cosmin, Mates Ileana-Mariana, Prisecaru Delia, la Salonul Internațional de Invenții și Inovații ”Traian Vuia” ediția a VIII-a, 8-10 Octombrie 2022, Timisoara, Romania
  - Special Award of the National Institute for Research and Development in Chemistry and Pedochemistry, ICECHIM for the invention Custom Made Implant From Bioresorbable Materials for Internal Fixation of Long Bone Fractures, to Florin Miculescu, Otilia Ilie, Augustin Semenescu, Mihnea-Cosmin Costoiu, Valeriu Gheorghită, Alexandru Marin, la Salonul Internațional de Invenții și Inovații ”Traian Vuia” ediția a VIII-a, 8-10 Octombrie 2022, Timisoara, Romania
  - Gold Medal for the invention Custom Made Implant from Bioresorbable Materials for Internal Fixation of Long Bone Fractures, to Florin Miculescu, Otilia Ilie, Augustin Semenescu, Mihnea-Cosmin Costoiu, Valeriu Gheorghită, Alexandru Marin, la Salonul Internațional de Invenții și Inovații ”Traian Vuia” ediția a VIII-a, 8-10 Octombrie 2022, Timisoara, Romania
  - Gold Medal for the invention Manufacturing Process of a Product Destined for Bone Defects Reconstruction, Based on Hydroxiapatite and Biogenic Biphasic Calcium Phosphate, to Florin Miculescu, Aura Mocanu, George Stan, Iulian Antoniac, Mihnea Cosmin Costoiu, Stefan Voicu, Marian Miculescu, Ileana Mates, Augustin Semenescu, la Salonul Internațional de Invenții și Inovații ”Traian Vuia” ediția a VIII-a, 8-10 Octombrie 2022, Timisoara, Romania
  - Premiul Special al Universității de Medicină și Farmacie Victor Babes / Timișoara pentru invenția Manufacturing Process of a Product Destined for Bone Defects Reconstruction, Based on Hydroxiapatite and Biogenic Biphasic Calcium Phosphate, to Florin Miculescu, Aura Mocanu, George Stan, Iulian Antoniac, Mihnea Cosmin Costoiu, Stefan Voicu, Marian Miculescu, Ileana Mates, Augustin Semenescu, acordat la Salonul Internațional de Invenții și Inovații ”Traian Vuia” ediția a VIII-a, 8-10 Octombrie 2022, Timisoara, Romania
  - Diamond Award for the invention Manufacturing Process of a Product Destined for Bone Defects Reconstruction, Based on Hydroxiapatite and Biogenic Biphasic Calcium Phosphate, to Florin Miculescu, Aura Mocanu, George Stan, Iulian Antoniac, Mihnea Cosmin Costoiu, Stefan Voicu, Marian Miculescu, Ileana Mates, Augustin Semenescu, at INTARG 2022, 15 -th Edition - International Invention and Innovation Show, 11-12 May, Katowice, Poland
  - Diamond Award for the invention Custom Made Implant from Bioresorbable Materials for Internal Fixation of Long Bone Fractures, to Florin Miculescu, Otilia Ilie, Augustin Semenescu, Mihnea-Cosmin Costoiu, Valeriu Gheorghită, Alexandru Marin, at INTARG 2022, 15 -th Edition - International Invention and Innovation Show, 11-12 May, Katowice, Poland
  - Gold Trophy & Diploma of Excellence of the University of Craiova Romania for the invention Custom Made Implant from Bioresorbable Materials for Internal Fixation of Long Bone Fractures, to Florin Miculescu, Otilia Ilie, Augustin Semenescu, Mihnea-Cosmin Costoiu, Valeriu Gheorghită, Alexandru Marin, at the European Exhibition of Creativity and Innovation EUROINVENT 2022, 26-28 May 2022, Iasi, Romania

- Excellence Award for the invention Manufacturing Process of a Product Destined for Bone Defects Reconstruction, Based on Hydroxiapatite and Biogenic Biphasic Calcium Phosphate, to Florin Miculescu, Aura Mocanu, George Stan, Iulian Antoniac, Mihnea Cosmin Costoiu, Stefan Voicu, Marian Miculescu, Ileana Mates, Augustin Semenescu, at the European Exhibition of Creativity and Innovation EUROINVENT 2022, 26-28 May 2022, Iasi, Romania
- Gold Medal for the invention Manufacturing Process of a Product Destined for Bone Defects Reconstruction, Based on Hydroxiapatite and Biogenic Biphasic Calcium Phosphate, to Florin Miculescu, Aura Mocanu, George Stan, Iulian Antoniac, Mihnea Cosmin Costoiu, Stefan Voicu, Marian Miculescu, Ileana Mates, Augustin Semenescu, at the European Exhibition of Creativity and Innovation EUROINVENT 2022, 26-28 May 2022, Iasi, Romania
- Gold Medal for the invention Custom Made Implant from Bioresorbable Materials for Internal Fixation of Long Bone Fractures, to Florin Miculescu, Otilia Ilie, Augustin Semenescu, Mihnea-Cosmin Costoiu, Valeriu Gheorghita, Alexandru Marin, at the European Exhibition of Creativity and Innovation EUROINVENT 2022, 26-28 May 2022, Iasi, Romania
- Diploma of Excellence and Gold Medal of the Tehnical University of Cluj- Napoca Romania for the invention Manufacturing Process of a Product Destined for Bone Defects Reconstruction, Based on Hydroxiapatite and Biogenic Biphasic Calcium Phosphate, to Florin Miculescu, Aura Mocanu, George Stan, Iulian Antoniac, Mihnea Cosmin Costoiu, Stefan Voicu, Marian Miculescu, Ileana Mates, Augustin Semenescu, at the European Exhibition of Creativity and Innovation EUROINVENT 2022, 26-28 May 2022, Iasi, Romania
- My RYS Special Award of the Malaysian Research & Innovation Society for the invention Manufacturing Process of a Product Destined for Bone Defects Reconstruction, Based on Hydroxiapatite and Biogenic Biphasic Calcium Phosphate, to Florin Miculescu, Aura Mocanu, George Stan, Iulian Antoniac, Mihnea Cosmin Costoiu, Stefan Voicu, Marian Miculescu, Ileana Mates, Augustin Semenescu, at the European Exhibition of Creativity and Innovation EUROINVENT 2022, 26-28 May 2022, Iasi, Romania
- WIIPA Special Award for the invention Manufacturing Process of a Product Destined for Bone Defects Reconstruction, Based on Hydroxiapatite and Biogenic Biphasic Calcium Phosphate, to Florin Miculescu, Aura Mocanu, George Stan, Iulian Antoniac, Mihnea Cosmin Costoiu, Stefan Voicu, Marian Miculescu, Ileana Mates, Augustin Semenescu, at the European Exhibition of Creativity and Innovation EUROINVENT 2022, 26-28 May 2022, Iasi, Romania
- Diploma de Excelență a AGEPI – Republica Moldova for the invention Manufacturing Process of a Product Destined for Bone Defects Reconstruction, Based on Hydroxiapatite and Biogenic Biphasic Calcium Phosphate, to Florin Miculescu, Aura Mocanu, George Stan, Iulian Antoniac, Mihnea Cosmin Costoiu, Stefan Voicu, Marian Miculescu, Ileana Mates, Augustin Semenescu, at the European Exhibition of Creativity and Innovation EUROINVENT 2022, 26-28 May 2022, Iasi, Romania
- Grand Award for the invention Surface Acoustic Wave Biosensor Based on Graphene Functionalized with Anti-Alpha-Fetoprotein Monoclonal Antibody, for the Diagnosis of Liver Cancer, to Voicu Ioan Stefan, Palla-Papavlu Alexandra, Antoniac Vasile Iulian, Miculescu Florin, Semenescu Augustin, Costoiu Mihnea Cosmin, Mates Ileana-Mariana, Prisecaru Delia, at the International Exhibition INVENTCOR 3rd edition, 15-17 December 2022, Deva, Romania
- Gold Medal for the invention Surface Acoustic Wave Biosensor Based on Graphene Functionalized with Anti-Alpha-Fetoprotein Monoclonal Antibody, for the Diagnosis of Liver Cancer, to Voicu Ioan Stefan, Palla-Papavlu Alexandra, Antoniac Vasile Iulian, Miculescu Florin, Semenescu Augustin, Costoiu Mihnea Cosmin, Mates Ileana-Mariana, Prisecaru Delia, at the International Exhibition INVENTCOR 3rd edition, 15-17 December 2022, Deva, Romania
- Diploma de Excelență a Asociației “JUSTIN CAPRA” for the invention Surface Acoustic Wave Biosensor Based on Graphene Functionalized with Anti-Alpha-Fetoprotein Monoclonal Antibody, for the Diagnosis of Liver Cancer, to Voicu Ioan Stefan, Palla-Papavlu Alexandra, Antoniac Vasile Iulian, Miculescu Florin, Semenescu Augustin, Costoiu Mihnea Cosmin, Mates Ileana-Mariana, Prisecaru Delia, at the International Exhibition INVENTCOR 3rd edition, 15-17 December 2022, Deva, Romania
- Diploma de Excelență a Asociației “Corneliu Group” Cercetare-Inovare for the invention Surface Acoustic Wave Biosensor Based on Graphene Functionalized with Anti-Alpha-Fetoprotein Monoclonal Antibody, for the Diagnosis of Liver Cancer, to Voicu Ioan Stefan, Palla-Papavlu Alexandra, Antoniac Vasile Iulian, Miculescu Florin, Semenescu Augustin, Costoiu Mihnea Cosmin, Mates Ileana-Mariana, Prisecaru Delia, at the International Exhibition INVENTCOR 3rd edition, 15-17 December 2022, Deva, Romania
- Premiul Special al Universității Politehnica din Timișoara for the invention Surface Acoustic Wave Biosensor Based on Graphene Functionalized with Anti-Alpha-Fetoprotein Monoclonal Antibody, for the Diagnosis of Liver Cancer, to Voicu Ioan Stefan, Palla-Papavlu Alexandra, Antoniac Vasile Iulian, Miculescu Florin, Semenescu Augustin, Costoiu Mihnea Cosmin, Mates Ileana-Mariana, Prisecaru Delia, at the International Exhibition INVENTCOR 3rd edition, 15-17 December 2022, Deva, Romania
- Special Honour of Invention of the TISIAS - Toronto International Society of Innovation and Advanced Skills -- International Invention Innovation Competition in Canada, iCan - Toronto Canada for the invention Surface Acoustic Wave Biosensor Based on Graphene Functionalized with Anti-Alpha-Fetoprotein Monoclonal Antibody, for the Diagnosis of Liver Cancer, to Voicu Ioan Stefan, Palla-Papavlu Alexandra, Antoniac Vasile Iulian, Miculescu Florin,

Semenescu Augustin, Costoiu Mihnea Cosmin, Mates Ileana-Mariana, Prisecaru Delia, at the International Exhibition INVENTCOR 3rd edition, 15-17 December 2022, Deva

- Special Prize awarded by Thai Innovation and Invention Promotion, Voicu Ioan Stefan, Palla-Papavlu Alexandra, Antoniac Vasile Iulian, Miculescu Florin, Semenescu Augustin, Costoiu Mihnea Cosmin, Mates Ileana Mariana, Prisecaru Delia Alexandra, in recognition of SURFACE ACOUSTIC WAVE BIOSENSOR BASED ON GRAPHENE FUNCTIONALIZED WITH ANTI-ALFA-FETOPROTEIN MONOCLONAL ANTIBODY FOR THE DIAGNOSIS OF LIVER CANCER, exhibited at Euroinvent 2023 Carol Davila Award for the invention MECHANO ELECTRIC LAUNDRY DRYER, TO MICULESCU FLORIN, MICULESCU MARIAN, COSTOIU MIHNEA COSMIN, CHIVU OANA ROXANA, BARBU CATALIN ALEXANDRU, SEMENESCU AUGUSTIN, awarded at Euroinvent 2023
- Special award for the invention Voicu Ioan Stefan, Palla-Papavlu Alexandra, Antoniac Vasile Iulian, Miculescu Florin, Semenescu Augustin, Costoiu Mihnea Cosmin, Mates Ileana Mariana, Prisecaru Delia Alexandra, in recognition of SURFACE ACOUSTIC WAVE BIOSENSOR BASED ON GRAPHENE FUNCTIONALIZED WITH ANTI-ALFA-FETOPROTEIN MONOCLONAL ANTIBODY FOR THE DIAGNOSIS OF LIVER CANCER, awarded at 9th International Salon of Inventions and Innovations "Traian Vuia", Timișoara 2023
- Special award for the invention "Dialysis membrane with the ability of controlling the release of active surfaces for the concomitant treatment of chronic renal dysfunction and liver cancer and the procedure for obtaining it", S.I. Voiucu, M. Oprea, A.M. Pandele, A. Semenescu, M.C. Costoiu, F. Miculescu, I.V. Antoniac, I.M. Mates, L.I. Cioca, awarded at 9th International Salon of Inventions and Innovations "Traian Vuia", Timișoara 2023
- Special Award for the invention „Procedeu de obținere a unui produs pentru reconstrucția defectelor osoase, pe bază de hidroxiapatită și fosfat de calciu bifazic biogen”, F. Miculescu, A.C. Mocanu, G.E. Stan, I.V. Antoniac, M.C. Costoiu, Ș.I. Voicu, M. Miculescu, I.M. Mateș, A. Semenescu, awarded at Istanbul International Fair ISIF 2023, Istanbul, Turkiye
- Excellence Award and Gold Medal of ICECHIM Bucharest, for the invention Voicu Ioan Stefan, Palla-Papavlu Alexandra, Antoniac Vasile Iulian, Miculescu Florin, Semenescu Augustin, Costoiu Mihnea Cosmin, Mates Ileana Mariana, Prisecaru Delia Alexandra, Surface acoustic wave biosensor based on graphene functionalized with anti-alfa-fetoprotein monoclonal antibody for the diagnosis of liver cancer, awarded at Istanbul International Fair ISIF 2023, Istanbul, Turkiye
- Certificate Best Global Inovator 2023 offered by offered for the invention „Procedeu de obținere a unui produs pentru reconstrucția defectelor osoase, pe bază de hidroxiapatită și fosfat de calciu bifazic biogen”, F. Miculescu, A.C. Mocanu, G.E. Stan, I.V. Antoniac, M.C. Costoiu, Ș.I. Voicu, M. Miculescu, I.M. Mateș, A. Semenescu, awarded at Istanbul International Fair ISIF 2023, Istanbul, Turkiye
- Certificate Best Global Inovator 2023 offered by OFEED for the invention Voicu Ioan Stefan, Palla-Papavlu Alexandra, Antoniac Vasile Iulian, Miculescu Florin, Semenescu Augustin, Costoiu Mihnea Cosmin, Mates Ileana Mariana, Prisecaru Delia Alexandra, Surface acoustic wave biosensor based on graphene functionalized with anti-alfa-fetoprotein monoclonal antibody for the diagnosis of liver cancer, awarded at Istanbul International Fair ISIF 2023, Istanbul, Turkiye
- Special Award for the invention „Procedeu de obținere a unui produs pentru reconstrucția defectelor osoase, pe bază de hidroxiapatită și fosfat de calciu bifazic biogen”, F. Miculescu, A.C. Mocanu, G.E. Stan, I.V. Antoniac, M.C. Costoiu, Ș.I. Voicu, M. Miculescu, I.M. Mateș, A. Semenescu, awarded at Istanbul International Fair ISIF 2023, Istanbul, Turkiye
- Gold Medal for the invention Mechano Electric Laundry Dryer, Miculescu Florin, Miculescu Marian, Costoiu Mihnea Cosmin, Chivu Oana Roxana, Barbu Catalin Alexandru, Semenescu Augustin awarded at Euroinvent 2023
- Special Award from TISS, for the invention Mechano Electric Laundry Dryer, Miculescu Florin, Miculescu Marian, Costoiu Mihnea Cosmin, Chivu Oana Roxana, Barbu Catalin Alexandru, Semenescu Augustin awarded at Euroinvent 2023
- Special Award from TISS, for the invention "Dialysis membrane with the ability of controlling the release of active surfaces for the concomitant treatment of chronic renal dysfunction and liver cancer and the procedure for obtaining it", S.I. Voiucu, M. Oprea, A.M. Pandele, A. Semenescu, M.C. Costoiu, F. Miculescu, I.V. Antoniac, I.M. Mates, L.I. Cioca, awarded at Euroinvent 2023
- Special Award from TISS, for the invention for the invention Voicu Ioan Stefan, Palla-Papavlu Alexandra, Antoniac Vasile Iulian, Miculescu Florin, Semenescu Augustin, Costoiu Mihnea Cosmin, Mates Ileana Mariana, Prisecaru Delia Alexandra, Surface acoustic wave biosensor based on graphene functionalized with anti-alfa-fetoprotein monoclonal antibody for the diagnosis of liver cancer, awarded at Euroinvent 2023
- Gold Medal for the invention "Dialysis membrane with the ability of controlling the release of active surfaces for the concomitant treatment of chronic renal dysfunction and liver cancer and the procedure for obtaining it", S.I. Voiucu, M. Oprea, A.M. Pandele, A. Semenescu, M.C. Costoiu, F. Miculescu, I.V. Antoniac, I.M. Mates, L.I. Cioca, awarded at Euroinvent 2023
- Special Prize awarded by Thai Innovation and Invention Promotion "Dialysis membrane with the ability of controlling the release of active surfaces for the concomitant treatment of chronic renal dysfunction and liver cancer

- and the procedure for obtaining it”, S.I. Voicu, M. Oprea, A.M. Pandelescu, A. Semenescu, M.C. Costoiu, F. Miculescu, I.V. Antoniac, I.M. Mates, L.I. Cioca, exhibited at Euroinvent 2023
- Gold Medal and Certificate of Excellence are awarded to Florin, Miculescu Marian, Costoiu Mihnea Cosmin, Chivu Oana Roxana, Barbu Catalin Alexandru, Semenescu Augustin For Mechano Electric Laundry Dryer, Euroinvent 13 May 2023
  - WIIPA SPECIAL AWARD-Voicu Ioan Stefan, Palla-Papavlu Alexandra, Antoniac Vasile Iulian, Miculescu Florin, Semenescu Augustin, Costoiu Mihnea Cosmin, Mates Ileana Mariana, Prisecaru Delia Alexandra, in recognition of SURFACE ACOUSTIC WAVE BIOSENSOR BASED ON GRAPHENE FUNCTIONALIZED WITH ANTI-ALFA-FETOPROTEIN MONOCLONAL ANTIBODY FOR THE DIAGNOSIS OF LIVER CANCER exhibited at Croatia Invention and Innovation show INOVA, Zagreb, 2023
  - WIIPA SPECIAL AWARD-Voicu Ioan Stefan, Palla-Papavlu Alexandra, Antoniac Vasile Iulian, Miculescu Florin, Semenescu Augustin, Costoiu Mihnea Cosmin, Mates Ileana Mariana, Prisecaru Delia Alexandra, in recognition of SURFACE ACOUSTIC WAVE BIOSENSOR BASED ON GRAPHENE FUNCTIONALIZED WITH ANTI-ALFA-FETOPROTEIN MONOCLONAL ANTIBODY FOR THE DIAGNOSIS OF LIVER CANCER exhibited at Croatia Invention and Innovation show INOVA, Zagreb, 2023
  - Gold Medal for the invention „Procedeu de obținere a unui produs pentru reconstrucția defectelor osoase, pe bază de hidroxiapatită și fosfat de calciu bifazic biogen”, F. Miculescu, A.C. Mocanu, G.E. Stan, I.V. Antoniac, M.C. Costoiu, Ș.I. Voicu, M. Miculescu, I.M. Mateș, A. Semenescu, awarded at WorldInvent Singapore, 2024
  - Best international invention & innovation award for the invention „Procedeu de obținere a unui produs pentru reconstrucția defectelor osoase, pe bază de hidroxiapatită și fosfat de calciu bifazic biogen”, F. Miculescu, A.C. Mocanu, G.E. Stan, I.V. Antoniac, M.C. Costoiu, Ș.I. Voicu, M. Miculescu, I.M. Mateș, A. Semenescu, awarded from The National Research Council of Thailand, at WorldInvent Singapore, 2024
  - Special Award for the invention „Procedeu de obținere a unui produs pentru reconstrucția defectelor osoase, pe bază de hidroxiapatită și fosfat de calciu bifazic biogen”, F. Miculescu, A.C. Mocanu, G.E. Stan, I.V. Antoniac, M.C. Costoiu, Ș.I. Voicu, M. Miculescu, I.M. Mateș, A. Semenescu, awarded at The 38th Genius Convention and Education Expo, Tokyo, Japan, 2024
  - Special Award for the invention “Manufacturing Process of a product destined for bone defects reconstruction, based on hidroxiapatite and biogenic biphasic calcium phosphate” F. Miculescu, A.C. Mocanu, G.E. Stan, I.V. Antoniac, M.C. Costoiu, Ș.I. Voicu, M. Miculescu, I.M. Mateș, A. Semenescu, awarded at The International Invention and Trade Expo ITE, London, 2024
  - >25 CNCSIS – awards for research articles

#### Invited speaker at international conferences

- F. Miculescu et. al, *Changes in the microstructure of the thin layers Cu-Ni-Cu-Fr with applications in biosensors*, 6th International Conference Biomaterials, Tissue Engineering & Medical Devices, BIOMMEDD'2012, Constanța, Romania
- F. Miculescu, *Methods of inducing the hydroxyapatite particles' characteristics required for 3D printing*, International Seminar on Biomaterials & Regenerative Medicine, BIOREMEDI 2015, Oradea, Romania
- F. Miculescu, *Guided improvement of biological apatite particles for bone tissue engineering applications*, European Conference on Orthopedic Biomaterials, ECOB 2015, Bucharest, Romania
- F. Miculescu, *Thermal Processing Routes for Tunable Calcium Phosphates Derived from Natural Origin Materials*, 7<sup>th</sup> International Conference Biomaterials, Tissue Engineering & Medical Devices, BIOMMEDD'2016, Constanța, Romania
- F. Miculescu, *Sintering strategies for bovine bone-derived hydroxyapatite and its microcomposites*, 6th International Conference on Materials Science and Technologies – RoMat 2016, Bucharest, Romania
- F. Miculescu, *Sustainable use of biogenic resources for developing calcium phosphates bioceramics and microcomposites with tunable bulk and surface characteristics*, The International Seminar on Biomaterials and Regenerative Medicine BIOREMEDI 2017, 5-8 octombrie 2017, Timisoara, Romania
- F. Miculescu, *Innovative sintering additives for naturally-derived calcium phosphates*, ROMAT 2018, 15-18th November 2018, Bucharest, Romania
- F. Miculescu, *Land and marine calcium sources for sustainable preparation of high-value biomaterials*, Biommedd 2018, 27-29th September 2018, Cluj-Napoca, Romania
- F. Miculescu, *Technologies for bone reconstruction biomaterials, using ceramics from natural sources and porogen agents*, BRAMAT 2019, 11th International Conference on Materials Science & Engineering, Brasov, Romania, 2019
- F. Miculescu, *Sustainable technologies for bone reconstruction ceramic biomaterials derived from natural sources and porogen agents*, International Seminar on Biomaterials and Regenerative Medicine, 26-28 September 2019, Craiova, Romania

- F. Miculescu, *Sustainable technologies for bone reconstruction ceramic biomaterials derived from natural sources and porogen agents*, RICCE 21, 21<sup>st</sup> Romanian International Conference on Chemistry and Chemical Engineering, 4-7 September 2019, Constanta, Romania
- F. Miculescu, *Ceramic and Composite Biomaterials for Bone Regeneration*, BrainIT 2021, Sibiu, România
- F. Miculescu, *Technologies for the fabrication of bone regeneration products based on ceramic and composite biomaterials*, EUROINVENT ICIR 2022 (Keynote speaker), Iași, România
- F. Miculescu, *New fabrication methods for bone regeneration products based on ceramic and composite biomaterials*, EENVIRO 2022 (Keynote speaker), București, România
- F. Miculescu, *Sustainable technologies for bone reconstruction products and bioceramic coatings development* Bioremed 2023 (Keynote speaker), Sibiu, România
- F. Miculescu, *3D printed bone reconstruction products with improved antibacterial and mechanical properties*, RoPM&AM 2025, International Conference on Powder Metallurgy & Advanced Materials, Keynote speaker, Cluj Napoca, România

### Chairman at international conferences

- The European Conference on Orthopedic Biomaterials, ECOB 2015, Bucharest, Romania
- The International Seminar on Biomaterials & Regenerative Medicine, BIOREMEDI 2015, Oradea, Romania
- The 7<sup>th</sup> International Conference Biomaterials, Tissue Engineering & Medical Devices, BIOMMEDI'2016, Constanța, Romania
- The 6<sup>th</sup> International Conference on Materials Science and Technologies – RoMat 2016, Bucharest, Romania
- The International Conference Technologies for the fabrication and characterization of 3D scaffolds for tissue engineering – NoRoTech, Serion 4, 08.06.2017, Bucharest, Romania
- The 28<sup>th</sup> Annual Meeting of the European Society for Biomaterials, Session OP-63 Natural Biomaterials (ESB 2017), Athens, Grece
- The International Seminar on Biomaterials and Regenerative Medicine BIOREMEDI 2017, Timisoara, Romania
- The International Seminar on Biomaterials and Regenerative Medicine BIOREMEDI 2017, Timisoara, Romania
- The 8<sup>th</sup> International Conference Biomaterials, Tissue Engineering & Medical Devices, BIOMMEDI'2018, Bucharest, Romania
- The 7<sup>th</sup> International Conference on Materials Science and Technologies – RoMat 2018, Bucharest, Romania
- The International Seminar on Biomaterials and Regenerative Medicine BIOREMEDI 2019, Craiova, Romania
- International Webinar on Ceramic and Composite Biomaterials for Bone Regeneration, 2021, Materials, MDPI, available online at <https://materials-3.sciforum.net/>
- The 9<sup>th</sup> International Conference Biomaterials, Tissue Engineering & Medical Devices, BIOMMEDI'2022, Bucharest, Romania
- EUROINVENT - ICIR 2022 - International Conference on Innovative Research, May 26th to 27th, 2022, Iași, România
- The International Conference on Materials Science and Technologies – RoMat 2024, Bucharest, România
- Bramat 2024, Functional materials and nanotechnology, Brașov, România
- The 10<sup>th</sup> International Conference Biomaterials, Tissue Engineering & Medical Devices, BIOMMEDI'2024, Bucharest, România
- The 12<sup>th</sup> International Conference on Structural Analysis of Advanced Materials, 2025, Brașov, România
- International Conference on Powder Metallurgy & Advanced Materials, RoPM&AM 2025, Cluj Napoca, România

### Member of editorial board

- **Member of Editorial Board:** Materials, MDPI (Q1)
- **Member of Editorial Board:** Metals, MDPI (Q2)
- **Member of Editorial Board:** Journal of Functional Biomaterials, MDPI
- **Member of Editorial Board:** Journal of Advanced Biotechnology and Bioengineering, Synergy Publishers
- **Guest Editor:** Journal of nanomaterials, Graphene Based Composites: From Theories to Advanced Applications, Hindawi Publishing Corporation 2016
- **Guest Editor:** Materials, Biomaterials and Implant Biocompatibility, MDPI, (Q1) 2018-2019
- **Guest Editor:** Materials, The Synthesis and Characterization of Biocompatible Materials, MDPI, (Q1) 2019-2020
- **Guest Editor:** Metals, MDPI, Metals as Biomaterials, (Q2) 2019-2020
- **Guest Editor:** Journal of Functional Biomaterials, MDPI, Bioceramics and Bioactive Glass-Based Materials MDPI, (Q2) 2022-2024
- **Guest Editor:** Materials, Biomaterials and Implant Biocompatibility 2<sup>nd</sup> Ed., MDPI, (Q1) 2020-2021

• **Guest Editor:** Journal of Functional Biomaterials, MDPI, Bioceramics and Bioactive Glass-Based Materials 2<sup>nd</sup> Ed., MDPI, (Q2) 2024-2025

### Patents

- Patent No. 131500/2019 „Uscator mecano-electric de rufe”, **F. Miculescu**, M. Miculescu, M.C. Costoiu, O.R. Chivu, C.A. Barbu, A. Semenescu.
- Patent No. 131943/2019 „Procedeu de obținere a unui produs tip scaffold pe bază de hidroxiapatită, pentru reconstrucția defectelor osoase majore, cu proprietăți fizico-chimice predeterminate”, **F. Miculescu**, A. Maidaniuc, M.C. Costoiu, A. Semenescu, M. Miculescu, F. Ioniță-Radu, M. Arghirescu.
- Patent No. 135711 B1/2023, , “Custom made implant from bioresorbable materials for internal fixation of long bone fractures - Implant personalizat din materiale bioresorbabile pentru fixarea internă a fracturilor oaselor lungi (RO 00257/2021)” F. Miculescu E.E. Ilie, A. Semenescu, M.C. Costoiu, V. Gheorghiuță, A. Marin
- Patent No.135807 B1/30.05.2023 „Procedeu de obținere a unui produs pentru reconstrucția defectelor osoase, pe bază de hidroxiapatită și fosfat de calciu bifazic biogen”, **F. Miculescu**, A.C. Mocanu, G.E. Stan, I.V. Antoniac, M.C. Costoiu, Ș.I. Voicu, M. Miculescu, I.M. Mateș, A. Semenescu
- Patent application No.RO 00062/2023 “Dialysis membrane with the ability of controlling the release of active surfaces for the concomitant treatment of chronic renal dysfunction and liver cancer and the procedure for obtaining it”, S.I. Voicu, M. Oprea, A.M. Pandelescu, A. Semenescu, M.C. Costoiu, **F. Miculescu**, I.V. Antoniac, I.M. Mates, L.I. Cioca
- Patent application No.A 00025/30.01.2024, “Procedeu de obținere a unor produse compozite printate 3D pe bază de hidroxiapatită biogenă, acid polilactic și nanoplăchete de grafenă, destinate pentru reconstrucția osoasă”, C.M. Costoiu, **F. Miculescu**, A.C. Mocanu, A. Cîmpean, A.M. Pandelescu, N.D. Batalu, S.I. Voicu, A.M. Negrescu, V. Mitran, A.M. Antoniac, A. Semenescu, M. Miculescu
- Patent No. 135947 B1/30.07.2025, Graphene-based biosensor for the detection of alpha-fetoprotein and method of obtaining it S.I. Voicu, A. Palla-Papavlu, I.V. Antoniac, **F. Miculescu**, A. Semenescu, M.C. Costoiu, I.M. Mateș, D.A. Prisecaru
- Patent application A 00591/04.12.2025, "Process for obtaining 3D printed implantable products from composites with the addition of controlled-release antimicrobial material for bone reconstruction", **F. Miculescu**, A.C. Mocanu, M.C. Costoiu, A.M. Pandelescu, A. Semenescu

### Head of developed research laboratories

- Electron Microscopy Laboratory (since 2001)
- Biomaterials and Nanomaterials Synthesis, Processing and Characterization Laboratory (since 2017)

### Extracurricular activities

- Director of the SIM-UPB Doctoral School (2020-2024 and 2024-2029)
- Member of the Scientific Experts Committee from the National Council for the Attestation of Titles, Diplomas and Academic Certificates - CNATDCU (2024-2028)
- President of the Materials Engineering and Science Committee from the National Council for the Attestation of Titles, Diplomas and Academic Certificates - CNATDCU (2020-2024)
- Member of the Materials Engineering Committee from the National Council for the Attestation of Titles, Diplomas and Academic Certificates - CNATDCU (2016-2020)
- Member of the Directorial Board of the Doctoral School from Materials Science and Engineering Faculty (2016-2020)
- Treasurer of the Romanian Society for Biomaterials SRB (2012-2014, 2017-2020 and 2021-2024)
- President of the Romanian Society for Biomaterials SRB (2014-2017)
- Founding Member of the Romanian Society of Electron Microscopy (2013)
- Member of the TERMIS International Society (2012 - present)
- Evaluation Expert of the UEFISCDI Materials Science Committee (2016 - present)
- Member of the research team in 5 international and over 60 national projects

### Research journals reviewer

- Materials Letters;
- Applied Surface Science;
- Ceramics International;
- Nanomaterials;

- Intermetallics;
- Materials Science & Engineering B;
- Carbohydrate Polymers;
- Materials&Design;
- Helyion;
- PLOS ONE;
- Metals;
- Polymers;
- Materials;
- Coatings;
- Symmetry;
- International Journal of Molecular Sciences;
- Journal of Materials Science in Semiconductor Processing;
- Corrosion Reviews;
- Surfaces and interfaces;
- Multidiscipline Modeling in Materials and Structures;
- Optics & Laser Technology;
- Materials Chemistry and Physics;
- Journal of MaterialsScience;
- Journal of the Australian Ceramic Society;
- Additive Manufacturing, Engineering Science and Technology;
- Journal of Polymers and the Environment;
- Journal of Pharmaceutical and Biomedical Analysis;
- Journal of Adhesion Science and Technology;
- Journal of Optoelectronics and Advanced Materials;
- Journal of Functional Biomaterials;
- University Politehnica of Bucharest Scientific Bulletin Series B - Chemistry and Materials Science;
- Revista de Chimie;
- Key Engineering Materials;
- Advanced Materials Research

#### **International conferences reviewer**

BiomMedD2014, RoMat2014, BioRemed2015, ECOB2015, Materials and Technologies in Dentistry: Defects, Processing and Characterization, Orthopedic Biomaterials – From Materials Science to Clinical Applications, BiomMedD2016, RoMat2016, BioRemed2017, RoMat2018, BiomMedD2018, BioRemed2019, Bramat 2022, Bioremed 2023, Euroinvent 2023, Bramat 2024, RoMat2024, BiomMedD2024, Euro Politechnicus 2024.

**Date,**  
19.01.2026

**Signature,**  
Prof. Florin Miculescu