

LISTA DE LUCRĂRI

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

I. TEZE DE DOCTORAT ȘI ABILITARE

- T1. **Teză de doctorat (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. **Teză de abilitare (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. CĂRȚI PUBLICATE (B)

B – Cărți / cursuri (manuale) pentru uzul studenților, publicate în edituri recunoscute

- 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.**, Lăptoiu, 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: 10.1007/978-3-319-12460-5_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 Its Technological Facets”*, J. Thirumalai Editor, InTechOpen, pag. 89-108, DOI: 10.5772/intechopen.71489, ISBN 978-953-51-5731-1, 2018
- B12. **F. Miculescu**, A.C. Mocanu, G.E. Stan, A. Maidaniuc, M. Miculescu, S.I. 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. A 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. ALTE MATERIALE PUBLICATE

I - Culegeri și îndrumare publicate în edituri cu 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. ARTICOLE / STUDII IN EXTENSO PUBLICATE (C) Reviste de specialitate de circulație internațională recunoscute (cotate / indexate ISI Thomson Reuters)

- 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 6.3**
- 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 Researches 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 0.5**
- 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 0.5**
- 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 0.5**
- 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 0.5**
- 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 0.5**
- 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 0.5**
- 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 0.5**
- 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 6.7**
- 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 0.7**
- 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 0.7**
- 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 1.1**
- 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 2.7**
- 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 3.9**
- 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. **Q4 IF 0.5**
- 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 6.2**
- 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 6.7**
- 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 Nafcillin 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 3.7**
- 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 0.9**
- C27 **F. Miculescu**, I. Jecu, 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 0.9**
- 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 2.7**
- C29 **F. Miculescu**, I. Jecu, C.P. Lungu, M. Miculescu, I.V. Antoniac, M. Tarcolea, M. Branzei, *Correlation Between Simulation 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, Q3, IF 1.1**
- 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 5.2**
- 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. **Q4, IF 0.5**
- C32 **F. Miculescu**, I. Jecu, 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 0.9**
- 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 2.1**
- 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. **Q2, IF 3.7**
- 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 0.9**
- 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 5.2**
- 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 0.9**
- C38 B.M. Galbinas, **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 0.5**
- 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 0.5**
- 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 0.5**
- 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 0.5**
- 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 0.9**
- 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 Q3, IF 1.1**
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Contracte de cercetare ca responsabil sau director

Director de contract

- "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 CNCIS Theme 11, Cod 190/2002 (3 years, 2002-2004)

Responsabil de contract

- "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)

Membru în echipe de cercetare

Contracte de cercetare internaționale

- 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

Contracte de cercetare naționale

- 1) Contract BIOTECH Nr.82/2001, Modelarea și cuantificarea interacțiilor biomaterialelor și implantelor cu mediul gazdă și/sau țesut 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 tehnicilor militare în gama spectrală 2 – 5 μm și 8 – 12 μm, 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, Cercetări privind influența gradului de prelucrare al suprafeței biomaterialelor metalice asupra proceselor de osteointegrare în țesuturile 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 si dezvoltarea unui echipament modern, destinat ambalarii 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 si structura fluxului in supraconductori nanostructurati 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 si accelerare fascicule de pozitroni monoenergetici in domeniul 0,8- 50 keV, utilizata la determinarile de defecte de tip vacanta sau aglomerari de goluri in 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 CNCIS 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 osoasa si epitelio-conjunctiva a implantului dentar in scopul cresterii performantelor 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, BIOCOB, 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 afecțiunilor articulare bazat pe nanomateriale și 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 suprafețelor endoprotezelor articulare cu uzura redusă - COAT4JOINTS, Contract manager Antoniac Iulian. (3 years)
- 49) Contract Nr. 72-192/2008, "Parteneriate in domeniile prioritare", Domeniul 7, Programul 4, Implante resorbabile utilizate în 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, MgB₂ 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)

Premii naționale și internaționale

- 2nd 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 5th 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
- 4th place, at the 13th 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 22nd International Salon of Research, Innovation and Technological Transfer Inventica 2017, 28-30th of June, Iasi, Romania
- Gold Medal Inventica 2017, for the invention "Mechano - electric laundry dryer", at the 22nd International Salon of Research, Innovation and Technological Transfer Inventica 2017, 28-30th 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 22nd International Salon of Research, Innovation and Technological Transfer Inventica 2017, 28-30th 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, 15th 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 3rd edition, 7-9th of June 2017, Timisoara, Romania
- Gold Medal, for the invention "Mechano - electric laundry dryer", at the "Traian Vuia" Inventions and Innovations International Salon 3rd edition, 7-9th 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, 3rd edition, 7-9th of June 2017, Timisoara, Romania
- Prize of the Romanian Inventors Forum, at the European Exhibition of Creativity and Innovation Euroinvent 2017, 25-27th 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, 25-27th of May 2017, Iasi, Romania
- Gold Medal, for the invention "Mechano - electric laundry dryer" at the European Exhibition of Creativity and Innovation Euroinvent 2017, 25-27th 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, 12-15th of November 2017, Ungheni, Republica Moldova
- Gold Medal and 4th 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, 16th edition, 21-23rd 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 5th edition, 12-14th of June 2019, Timisoara, Romania
- Certificate of Excellence, for the invention "Mechano - electric laundry dryer", at the "Traian Vuia '19" Salon 5th edition, 12-14th of June 2019, Timisoara, Romania
- Diploma of Excellence "King Michael the 1st 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 5th edition, 12-14th 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 5th edition, 12-14th of June 2019, Timisoara, Romania
- Diploma of Excellence and Inventory Medal 2019, for the invention "Mechano - electric laundry dryer", at the 22nd International Salon of Inventory and Exhibition 2019, 26-28th 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 XIIIth International Warsaw Invention Show "IWIS", 16th 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 XIIIth International Warsaw Invention Show "IWIS", 16th 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, 13-16th 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, 13-16th 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, 13-16th 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 14th 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 14th 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 6th International Invention and Innovation Competition in Canada, ICAN 2021, August 29th 2021, Toronto, Canada
 - Gold Medal for the invention “Method for obtaining scaffolds with predetermined physico-chemical characteristics for major bone reconstruction”, at the 6th Annual International Invention and Innovation Competition in Canada, iCAN 2021, August 29th 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 October 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 October 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, Iaşi, 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 Gheorghişă, 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
 - OCIP 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 Gheorghişă, 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 Hydroxyapatite 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 Gheorghită, 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 Gheorghită, 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 Gheorghită, 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

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- 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 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 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 Gheorghită, 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, Romania
- 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. Voicu, 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 Istambul International Fair ISIF 2023, Istambul, Turkey
- 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 Istambul International Fair ISIF 2023, Istambul, Turkey
- 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 Istambul International Fair ISIF 2023, Istambul, Turkey
- 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 Istambul International Fair ISIF 2023, Istambul, Turkey

- 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 Istambul International Fair ISIF 2023, Istambul, 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. Voicu, 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. Voicu, 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. Pandele, 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

Lucrări invitate la conferințe internaționale

- F. Miculescu et. all, *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, BIOREMED 2015, Oradea, România
- F. Miculescu, *Guided improvement of biological apatite particles for bone tissue engineering applications*, European Conference on Orthopedic Biomaterials, ECOB 2015, Bucharest, România
- F. Miculescu, *Thermal Processing Routes for Tunable Calcium Phosphates Derived from Natural Origin Materials*, 7th 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 BIOREMED 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, 21st 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

Chairman la conferințe internaționale

- The European Conference on Orthopedic Biomaterials, ECOB 2015, Bucharest, Romania
- The International Seminar on Biomaterials & Regenerative Medicine, BIOREMED 2015, Oradea, Romania
- The 7th International Conference Biomaterials, Tissue Engineering & Medical Devices, BIOMMEDD'2016, Constanța, Romania
- The 6th 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 28th 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 BIOREMED 2017, Timisoara, Romania
- The International Seminar on Biomaterials and Regenerative Medicine BIOREMED 2017, Timisoara, Romania
- The 8th International Conference Biomaterials, Tissue Engineering & Medical Devices, BIOMMEDD'2018, Bucharest, Romania
- The 7th International Conference on Materials Science and Technologies – RoMat 2018, Bucharest, Romania
- The International Seminar on Biomaterials and Regenerative Medicine BIOREMED 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 9th International Conference Biomaterials, Tissue Engineering & Medical Devices, BIOMMEDD'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, Braşov, România
- The 10th International Conference Biomaterials, Tissue Engineering & Medical Devices, BIOMMEDD'2024, Bucharest, România

Membru în comitete editoriale

- **Member of Editorial Board:** Materials, MDPI
- **Member of Editorial Board:** Metals, MDPI
- **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 2nd Ed., MDPI, (Q1) 2020-2021
- **Guest Editor:** Journal of Functional Biomaterials, MDPI, Bioceramics and Bioactive Glass-Based Materials 2nd Ed., MDPI, (Q2) 2024-2025

Brevete

- Brevet Nr. 131500/2019 „Uscator mecano-electric de rufe”, **F. Miculescu**, M. Miculescu, M.C. Costoiu, O.R. Chivu, C.A. Barbu, A. Semenescu.
- Brevet Nr. 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.
- Brevet Nr. 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. Gheorghită, A. Marin
- Brevet Nr. 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
- Cerere de brevet 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. Pandele, A. Semenescu, M.C. Costoiu, **F. Miculescu**, I.V. Antoniac, I.M. Mates, L.I. Cioca
- Cerere de brevet A 00025/30.01.2024, ”Procedeu de obținere a unor produse compozite printate 3D pe bază de hidroxiapatităbiogenă, acid polilactic și nanoplăchete de grafenă, destinate pentru reconstrucția osoasă”, C.M. Costoiu, **F. Miculescu**, A.C. Mocanu, A. Cîmpean, A.M. Pandele, N.D. Batalu, S.I. Voicu, A.M. Negrescu, V. Mitran, A.M. Antoniac, A. Semenescu, M. Miculescu

Laboratoare de cercetare dezvoltate

- Microscopie electronică ESEM și microanaliză (începând cu 2001)
- Sinteza, procesarea și caracterizarea biomaterialelor și a nanomaterialelor (începând cu 2017)

Activități extracuriculare

- Director Școală Doctorală SIM-Politehnica București (2020-2024 și 2024-2029)
- Membru în Comisia de Experți din Consiliul Național de Atestare a Titlurilor, Diplomelor și Certificatelor Universitare - CNATDCU (2024-2028)
- Președinte al Comisiei Ingineria și Știința Materialeelor din Consiliul Național de Atestare a Titlurilor, Diplomelor și Certificatelor Universitare - CNATDCU (2020-2024)
- Membru al Comisiei Ingineria Materialeelor din Consiliul Național de Atestare a Titlurilor, Diplomelor și Certificatelor Universitare - CNATDCU (2016-2020)

- Membru al Consiliului Director al Școlii Doctorale din Facultatea de Știința și Ingineria Materialelor (2016-2024)
- Trezorier al Societății Române de Biomateriale SRB (2012-2014, 2017-2020)
- Președinte al Societății Române de Biomateriale SRB (2014-2017)
- Membru fondator al Societății Române de Microscopie Electronică (2013)
- Membru al TERMIS International Society (2012 - present)
- Expert evaluator UEFISCDI Materials Science Committee (2016 - present)
- Membru în echipa de cercatare la 7 proiecte internaționale și la mai mult de 60 de contracte naționale

Recenzor la reviste

- 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

Recenzor la conferințe internaționale

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, RoMat2020, Bramat 2022, Bioremed 2023, Euroinvent 2023, Bramat 2024, RoMat2024, BiomMedD2024, Euro Politechnicus 2024.

Data,
03.03.2025

Semnătura,
Prof. Florin Miculescu