

THE PUBLICATIONS AND ACTIVITIES LIST

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

I. Thesis

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

II. Books (B)

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

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

III. OTHER PUBLISHED MATERIALS

I - Collections of Problems and Laboratory Guidance published with ISBN

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

II – Books as Editor at international publishing houses

- II.1. A. Cîmpean, **F. Miculescu**, “Biomaterials and Implants Biocompatibility”, Ed. MDPI, DOI: 10.3390/books978-3-03928-217-3, ISBN 978-3-03928-217-3 (420 pag.), 2020

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

WOS Clarivate Analytics quoted articles

- C1 P. Moldovan, G. Popescu, **F. Miculescu**, *Microscopic Study Regarding The Microstructure Evolution Of The 8006 Alloy In The Plastic Deformation Process*, Journal of Materials Processing Technology, Vol. 153, Part 1, SI, Pag. 408-415, DOI: 10.1016/J.Jmatprotec. 2004.04.345, WOS:000225845500064, ISSN: 0924-0136, 2004. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q1, FI 4.178**
- 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. **Q3, IF 1.605**
- 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. **Q3, IF 1.605**
- 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. **Q3, IF 1.605**
- 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. **Q3, IF 1.605**
- C6 **F. Miculescu**, D. Bojin, L.T. Ciocan, I.A. Antoniac, M. Miculescu, N. Miculescu, *Experimental Researche on Biomaterial-Tissue Interface Interactions*, Journal of Optoelectronics and Advanced Materials, Vol. 9, Iss. 11, Pag. 3303-3306, ISSN:1454-4164, 2007. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Principal author, Q4, IF 0.588**
- 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 0.588**
- 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 0.588**
- 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 0.588**
- 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 0.588**
- 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 0.588**
- 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 0.588**
- 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 5.155**
- C16 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 0.559**
- C17 I. Iosub, V. Malinovschi, **F. Miculescu**, A. Meghea, *Biomineralization 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 0.559**
- C18 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 1.5**
- C19 I. Jepu, C. Porosnicu, I. Mustata, C.P. Lungu, V. Kuncser, **F. Miculescu**, *Optimization of Thermionic Vacuum Arc Plasma Used for Multilayer GMR/TMR Films Preparation*, Romanian Reports in Physics, Vol. 62, Iss. 4, Pag. 771-779, WOS:000286575200010, ISSN: 1221-1451, 2010. Document Type: Article, Web of Science Categories: Physics, Multidisciplinary. **Q2 IF 1.94**
- C20 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 2.68**
- C21 S. Visan, V. Ciobotaru, F. Ionescu, C. Zaharia, **F. Miculescu**, C. Cincu, *Correlation of Chemical Composition and Microstructure with Technical Properties of an Elasto-Plastic Composite Material*, Optoelectronics and Advanced Materials-Rapid Communications, Vol. 4, Iss. 5, Pag. 722-725, WOS:000279246000025, ISSN: 1842-6573, 2010. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q2 IF 0.452**
- C22 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 4.175**
- C23 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 5.155**
- C24 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 2.467**
- C25 **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 0.638**
- C26 **F. Miculescu**, I. Jepu, C. Porosnicu, C.P. Lungu, M. Miculescu, B. Burhala, *A Study on the Influence of the Primary Electron Beam on Nanodimensional Layers Analysis*, Digest Journal of Nanomaterials and Biostructures, Vol. 6, Iss. 1, Pag. 307-317, WOS:000289716200039, ISSN: 1842-3582, 2011. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Principal author, Q4, IF 0.638**
- C27 I.V. Popescu, I. Pencea, V.F. Anghelina, M. Branzei, **F. Miculescu**, C. Macris, C. Petre, *New Proves*

- Concerning Streamer Mechanism of Vaporization and Sputtering of a Stainless Steel During Sparking for Optical Emission Spectroscopical Analysis*, Romanian Reports in Physics, Vol. 63, Iss. 3, Pag. 823-838, WOS:000293992000019, ISSN: 1221-1451, 2011. Document Type: Article, Web of Science Categories: Physics, Multidisciplinary. **Q2, IF 1.94**
- C28 **F. Miculescu**, I. Jepu, C.P. Lungu, M. Miculescu, I.V. Antoniac, M. Tarcolea, M. Branzei, *Correleation Between Simmulation and Microanalytical Experiment in Multilayer Nanostructures Type Analysis*, University Politehnica of Bucharest Scientific Bulletin - Series A - Applied Mathematics and Physics, Vol. 73, Iss. 4, Pag. 153-166, WOS:000299150300013, ISSN: 1223-7027, 2011. Document Type: Article, Web of Science Physics, Multidisciplinary. **Principal author, Q4, IF 0.478**
- C29 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 3.131**
- C30 C. Zaharia, M.R. Tudora, **F. Miculescu**, C. Cincu, D. Chappard, *Mineralization Behaviour of Some New Phema-Based Copolymers With Potential Uses in Tissue Engineering*, Optoelectronics and Advanced Materials - Rapid Communications, Vol. 5, Iss. 3-4, Pag. 314-317, WOS:000290774800027, ISSN: 1842-6573, 2011. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q2, IF 0.452**
- C31 **F. Miculescu**, I. Jepu, C.P. Lungu, M. Miculescu, M. Bane, *Researches Regarding the Microanalysis Results Optimisation on Multilayer Nanostructures Investigations*, Digest Journal of Nanomaterials and Biostructures, Vol. 6, Iss. 2, Pag. 769-778, WOS:000290789400050, ISSN: 1842-3582, 2011. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Principal author, Q4, IF 0.638**
- C32 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. **Q2, IF 1.888**
- C33 I.C. Bujanca, M.C. Corobea; **F. Miculescu**, M. Dimonie, *Polystyrene Latex Particles Obtained by Emulsifier-Free Emulsion Polymerization and Their Interaction with Bentonite*, E-Polymers, Art.No. 033, WOS:000289366900004, ISSN: 1618-7229, 2011. Document Type: Article, Web of Science Categories: Polymer Science. **Q3, IF 1.491**
- C34 **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 0.638**
- C35 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 3.131**
- C36 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 0.638**
- C37 B.M. Galbinasu, **F. Miculescu**, D. Pirvu, L.T. Ciocan, D. Herschbach, A. Tonko, I. Patrascu, F. Stoiciu, *Dental Tissue - Inlay Interface Structural Shift at Mechanical and Thermal Stresses*, Optoelectronics and Advanced Materials-Rapid Communications, Vol. 6, Iss. 3-4 Pag. 459-464, WOS:000304431000023, ISSN: 1842-6573, 2012. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q4, IF 0.452**
- C38 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 0.452**
- C39 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 0.588**
- C40 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 0.588**
- C41 **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 0.638**
- C42 **F. Miculescu**, M. Miculescu, L.T. Ciocan, I. Pencea, A. Ernuteanu, E. Matei, *Correlation of Spectrometric Methods in Hard Tissue Heavy Elements Concentration Study*, University Politehnica of Bucharest Scientific Bulletin-Series A-Applied Mathematics And Physics, Vol. 75, Iss. 1, Pag. 233-242, WOS:000315547300022, ISSN:1223-7027, 2013. Document Type: Article, Web of Science Categories: Physics, Multidisciplinary. **Q4, Principal author IF 0.478**
- C43 R.I. Zamfir, E. Popovici, **F. Miculescu**, M. Danila, A. Parau, *Structural Investigation of Austenitic Stainless Steel Layers Obtained by Laser Surface Alloying*, Journal of Optoelectronics and Advanced Materials, Vol. 15, Iss. 3-4, Pag. 305-310, WOS:000319788000029, ISSN: 1454-4164, 2013. Document Type: Article, Web of Science Categories: Materials Science, Multidisciplinary. **Q4, IF 0.588**
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- D122. A.C. Mocanu, S.I. Voicu, A. Maidaniuc, M. Miculescu, L.T. Ciocan, C.A. Dascalu, A. Berbecaru, **F. Miculescu**, *Synthesis technology and preliminary characterization of marble type precursors-derived hydroxyapatite as bone substituent*, 7th International Conference "Biomaterials, Tissue Engineering & Medical Devices" BIOMMEDD'2016, 15-18 September, Constanța, Romania
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Engineering, 8 - 11 martie 2017, Braşov, Romania

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- D145. C.A. Dascălu, A.C. Mocanu, A. Maidaniuc, A.M. Pandele, S.I. Voicu, **F. Miculescu**, *The importance of hydroxyapatite route synthesis from bovine bone origin on composite materials used in guided bone regeneration*, Biommedd 2018, 27-29th September 2018, Cluj-Napoca, Romania
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- D155.E. Constantinescu, T.M. Butte, A. Maidaniuc, A.M. Pandele, S.I. Voicu, **F. Miculescu**, *Comparative studies on polymeric-ceramic composites obtaining possibilities*, ROMAT 2018, 15-18th November 2018, Bucharest, Romania
- D156.O.E. Ilie, I.V. Antoniac, T.M. Butte, A. Maidaniuc, R.C. Ciocoiu, **F. Miculescu**, *Studies on the possibilities of obtaining internal bone fixators using CAD design and 3D printing*, ROMAT 2018, 15-18th November 2018, Bucharest, Romania
- D157.V. Mitran, R. Ion, M. Miculescu, MG. Necula, **F. Miculescu**, A. Cimpean, *Biocompatibility assessment and osteoblast response o seashell and marble derived hydroxyapatite*, SNBC 2018
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- D161.C.A. Dascălu, I. V. Antoniac, A. Maidaniuc, A.M.Pandele, S.I. Voicu, T. Machedon-Pisu, G.E. Stan, A. Cimpean, V. Mitran, **F. Miculescu**, *Synthesis and characterization of biocompatible polymer-ceramic film structures as favorable interface in guided bone regeneration*, BRAMAT 2019, 11th International Conference on Materials Science & Engineering, Brasov, Romania, 2019
- D162.N. Levința, Z. Vuluga, F. Miculescu, M.C. Corobea, C.A. Nicolae, R. Gabor, A.A. Măinea, G.M. Teodorescu, *Nanocomposites based on polyamide 6/halloysite versus polyamide 6/hydroxycarbonate*, RICCE 21, 21st Romanian International Conference on Chemistry and Chemical Engineering, 4-7 September 2019, Constanta, Romania

Research Contracts as Manager or Responsible

Project manager

- “New technology for the synthesis and manufacturing of biomimetic implants derived from biogenic resources used for bone reconstruction surgery”, Grant PN-III-P2-2.1-PED-2016-0892, BiolmMS (2 years, 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)

Project team leader

- “Advanced research for producing combinatorial coatings of interest for fusion”, Contract CNMP Nr. 72-223/2008, CAPACIF (3 years)

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

Member in research teams

International research grants

- 1) FP6 “Magnesium forged components for structural lightweight automotive applications“, MAGFORGE (3 years)
- 2) FP6-Marie Curie Actions-ToK; Contract nr. 014059/2005; Intensive Program for Transfer of Knowledge to Eastern Europe Reference Pole for Micro- and Nanotechnologies, NANOTEC-EST (3 years)
- 3) FP7-NMP-2007-LARGE-1, Proiect nr.293104/2008, Novel biofunctional polymer scaffolds and techniques for the regeneration and repair of degenerate intervertebral disc, Acronym Disc Regeneration; Collaborative Project; Large-scale integrating project; Work programme topics addressed: NMP-2007-2.3-1 (3 years)
- 4) COST MP0602 - “Advanced Solder Materials for High Temperature Application (HISOLD)”, Contract manager Prof.Dr.Ing. Svasta Paul (3 years)
- 5) COFUND-M-ERA.NET II-BIOMB 2017–2020, Advanced biodegradable materials based on MgB₂ resistant to microbial colonization (3 years)

National research grants team member or key person

- 1) Contract BIOTECH Nr.82/2001, Modelarea si cuantificarea interactiilor biomaterialelor si implantelor cu mediul gazda si/sau tesut implantat prin metode avansate, Contract manager Caloianu Maria. (3 years)
- 2) Contract RELANSIN S9 Nr. 1473/2001, Centru de biomateriale, Contract manager Prof.Dr.Ing Zamfir Simona. (3 years)
- 3) Contract RELANSIN S13 Nr. 1474/2001, Realizarea protezelor articulare de șold, Contract manager Brânzei Mihai. (3 years)
- 4) Contract RELANSIN S1 Nr. 22/2002, Studiul proceselor la interfața strat substrat implicate în obținerea biomaterialelor, Contract manager Prof.Dr.Ing. Zamfir Simona. (3 years)
- 5) Contract INVENT S2 Nr. 101/2003, Componenta femurală pentru proteza totală de șold, Contract manager Orban Horia Bogdan. (3 years)
- 6) Contract RELANSIN S3 Nr. 1666/2003, Tehnologie modernă de realizare a grupului rotoric 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 obtinere si prelucrare a biomaterialelor metalice destinate implanturilor dentare, Responsabil contract Prof.Dr.Ing. Simona Zamfir. (2 years)
- 8) Contract RELANSIN / Nr. 1740/2003, Tehnologii noi pentru fabricarea de etaloane spectrale din oțeluri și aliaje complexe, Responsabil contract Pencea Ion. (2 years)
- 9) Contract RELANSIN S8 Nr. 1771/2003, Laborator mobil pentru determinarea de la distanță a amprentei termice a tehnicii militare în gama spectrală 2 μm și 8 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, Cercetari privind influenta gradului de prelucrare al suprafetei biomaterialelor metalice asupra proceselor de osteointegrare in tesuturile biologice, Responsabil contract CEEX Prof.dr.ing. Bunea Daniel. (2 years)
- 12) Contract CERES Nr. 4-183/2004, Optimizarea tratamentului termic de durificare cu laser în vederea creșterii rezistenței la uzare-coroziune a oțelurilor inoxidabile, Contract manager Prof.Dr.Ing. Zamfir Simona. (2 years)
- 13) Contract CERES Nr. 4-184/2004, Studiul transformărilor structurale care au loc în straturile superficiale ale oțelurilor inoxidabile supuse acțiunii radiației laser, Contract manager Prof.Dr.Ing. Zamfir Simona. (2 years)
- 14) Contract RELANSIN S3 Nr. 1953/2004, Tehnologii modernizate de producere a conservelor, în conformitate cu cerințele și exigențele pieței uniunii europene, Contract manager Boca Elena. (2 years)
- 15) Contract RELANSIN S3, Subcontract Nr. 1964/2004, Modernizarea echipamentelor și aplicațiilor în transportul și distribuția gazelor naturale prin realizarea și utilizarea de adezivi și paste de etanșare cu proprietăți specifice, APEG, Contract manager Prof.Dr.Fiz. Bojin Dionezie. (2 years)
- 16) Contract RELANSIN S3, PDT, 2025/2004, Realizarea tehnologiei de prelucrare a unor aliaje biocompatibile pe bază de metale nobile, Contract manager Prof.Dr.Ing. Răducanu Doina. (2 ani)
- 17) Contract RELANSIN Nr. 2146/2004, Gamă de depărtătoare autostatice cu multiple aplicații chirurgicale, Contract manager Antoniac Iulian. (1.5 years)

- 18) Contract AGRAL S5, Nr. 267/2004, Realizarea 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 CNC SIS Cod 91, Modelarea proceselor fizico-chimice în elaborarea unei metode noi, ecologice, de obținere a titanului, Contract manager Prof.Dr.Ing. Târcolea Mihail. (1 year)
- 27) Contract CEEX Nr. 94/2006, Cercetări fundamentale și experimentale privind biomaterialele cu memoria formei cu aplicabilitate în realizarea stenturilor vasculare, Contract manager Prof.Dr.Ing. Ciucă Ion. (2 years)
- 28) Contract CEEX Nr. 116/2006, Studii fundamentale privind integrarea 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, BIOCOP, Responsabil contract Prof.dr.ing. Geantă Victor. (2 years)
- 36) Contract CEEX RELANSIN Nr.235/2006, Biofunctionalizarea suprafetei implanturilor pentru osteosinteza, OSTEOSURF, Contract manager S.I.dr.ing. Antoniac Iulian. (2 years)
- 37) Contract CEEX RELANSIN Nr. 287/2006, Tehnologii avansate de mediu pentru reducerea poluării rezultate din deversarea efluenților specifici industriei energetice, utilizând materiale carbonice active cu precursori indigeni ieftini. CARBPOL, Contract manager Prof.Dr.Fiz. Pencea Ion (2 years)
- 38) Contract CEEX RELANSIN Nr. 297/2006, Cercetari privind mecanismul durificarii si stabilitatea la cald a otelurilor de tip maraging, MEDUR, responsabil Conf.dr.ing. Brânzei Mihai. (2 years)
- 39) Contract CEEX RELANSIN Nr. 301-2006, Metode, procedee performante și aplicații tehnologice privind integrarea de noi materiale în dezvoltarea conceptuală a componentelor modulare, multifuncționale și de înaltă precizie utilizate în cadrul sistemelor inteligente de prelucrare. Contract manager Prof.Dr.Ing. Ciucă Ion. (2 years)
- 40) Contract CNMP Nr. 31-001/2007, Sistem mobil de monitorizare rapidă a agenților biologici și chimici pentru obiective de importanță strategică, Contract manager Prof.Dr.Fiz. Bojin Dionezie. (3 years)
- 41) Contract Nr. 71-008-1/2007, Materiale avansatemicrocristaline cu aplicații în utilizarea energiei electrice, MICROMAT, Contract manager Prof.Dr.Ing. Moldovan Petru. (2 years)
- 42) Contract CNMP Nr. 71-059/2007, Tehnologii inovative de realizare a unor produse din aliaje tip Permalloy competitive la export PERMATECH, Contract manager Prof.Dr.Ing. Șaban Rami. (3 years)
- 43) Contract CNMP Nr. 71-080/2007, Materiale multifuncționale cu efect bioactiv destinate implantologiei MULTIBIOMAT, Contract manager Prof.Dr.Ing. Coșmeleață Georgeta. (3 years)

- 44) Contract CNMP Nr. 81-002/2007, Sistem mobil de detecție, identificare și monitorizare biologică și chimică, LITECAT, Contract manager Prof.Dr.Fiz. Bojin Dionezie. (3 years)
- 45) Contract INOVARE Nr. 115/2007, Tehnologii integrate pentru realizarea unor materiale biocompatibile complexe, BIOCOMPLEXMAT, Contract manager Prof.Dr.Ing. Coșmeleață Georgeta. (2 years)
- 46) Contract CNMP Nr. 32-165/2008, Medii de epurare controlată a apelor contaminate chimic și biologic, Contract manager Prof.Dr.Fiz. Bojin Dionezie. (3 years)
- 47) Contract Nr. 42-132/2008, "Parteneriate in domeniile prioritare", Programul 4, Domeniul 4, Dispozitiv medical pentru tratarea afectiunilor articulare bazat pe nanomateriale si efectele campului magnetic, ARTROMAG, Contract manager Marinescu Rodica. (3 years)
- 48) Contract Nr. 72-180/2008, "Parteneriate in Domeniile Prioritare", Domeniul 7, Programul 4, Materiale nanostructurate pentru functionalizarea suprafetelor endoprotezelor articulare cu uzura redusa - COAT4JOINTS, Contract manager Antoniac Iulian. (3 years)
- 49) Contract Nr. 72-192/2008, "Parteneriate in domeniile prioritare", Domeniul 7, Programul 4, Implants resorbabile utilizate in artroscopie realizate din biomateriale biomimetice, AURABIOMAT, Contract manager Antoniac Iulian. (3 years)
- 50) Contract Nr. 72-221/2008, "Parteneriate in domeniile prioritare", Metodă nouă de protecție anticorozivă a materialelor din oțel prin electrodepunerea de filme subțiri din aliaje ternare Zn-Ni-P, Contract manager Prof.Dr.Ing. Târcolea Mihail. (3 years)
- 51) Contract nr. 175/2012, Straturi subțiri biocompatibile pentru îmbunătățirea aderenței ceramică-metal în restaurările dentare –COST4DENT, Contract manager S.I.Dr.Ing. Cosmin Cotruș. (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, Mg₂ 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

National and International Awards

- 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 Biomed, 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 XXIth International Salon of Research, Innovation and Technological Transfer "INVENTICA 2017", Iași, Romania
- 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 Inventions RoInvent, 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.
- >20 CNC SIS – awards for research articles.

Invited speaker at international conferences

- 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, BIOREMEDI 2015, Oradea, Romania
- F. Miculescu, *Guided improvement of biological apatite particles for bone tissue engineering applications*, European Conference on Orthopedic Biomaterials, ECOB 2015, Bucharest, Romania
- F. Miculescu, *Thermal Processing Routes for Tunable Calcium Phosphates Derived from Natural Origin Materials*, 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 BIOREMEDI 2017, 5-8 octombrie 2017, Timisoara, Romania
- F. Miculescu, *Innovative sintering additives for naturally-derived calcium phosphates*, ROMAT 2018, 15-18th November 2018, Bucharest, Romania
- F. Miculescu, *Land and marine calcium sources for sustainable preparation of high-value biomaterials*, Biommedd 2018, 27-29th September 2018, Cluj-Napoca, Romania
- F. Miculescu, *Technologies for bone reconstruction biomaterials, using ceramics from natural sources and porogen agents*, BRAMAT 2019, 11th International Conference on Materials Science & Engineering, Brasov, Romania, 2019
- F. Miculescu, *Sustainable technologies for bone reconstruction ceramic biomaterials derived from natural sources and porogen agents*, International Seminar on Biomaterials and Regenerative Medicine, 26-28 September 2019, Craiova, Romania
- F. Miculescu, *Sustainable technologies for bone reconstruction ceramic biomaterials derived from natural sources and porogen agents*, RICCE 21, 21st Romanian International Conference on Chemistry and Chemical Engineering, 4-7 September 2019, Constanta, Romania

Chairman at international conferences

- The European Conference on Orthopedic Biomaterials, ECOB 2015, Bucharest, Romania
- The International Seminar on Biomaterials & Regenerative Medicine, BIOREMEDI 2015, Oradea, Romania
- The 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 BIOREMEDI 2017, Timisoara, Romania
- The International Seminar on Biomaterials and Regenerative Medicine BIOREMEDI 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 BIOREMEDI 2019, Craiova, Romania.

Member of editorial board

- **Member of Editorial Board:** Journal of Functional Biomaterials, MDPI
- **Member of Editorial Board:** Journal of Advanced Biotechnology and Bioengineering, Synergy Publishers
- **Topic Editorial Board:** Metals, MDPI (Q1)
- **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, (Q2) 2018-2019
- **Guest Editor:** Materials, The Synthesis and Characterization of Biocompatible Materials, MDPI, (Q2) 2019-2020
- **Guest Editor:** Metals, MDPI, Metals as Biomaterials, (Q) 2019-2020
- **Guest Editor:** Journal of Functional Biomaterials, MDPI, Bioceramics and Bioactive Glass-Based Materials

Patents

- Patent No. 131500/2019 „Mechano – electric laundry dryer”, **F. Miculescu**, M. Miculescu, M.C. Costoiu, O.R. Chivu, C.A. Barbu, A. Semenescu.
- Patent No. 131943/2019 „Method for obtaining scaffolds with predetermined physico-chemical characteristics for major bone reconstruction”, **F. Miculescu**, A. Maidaniuc, M.C. Costoiu, A. Semenescu, M. Miculescu, F. Ioniță-Radu, M. Arghirescu.

Head of developed research laboratories

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

Extracurricular activities

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

Research journals reviewer

- Materials Letters
- Applied Surface Science
- Nanomaterials
- Intermetallics
- 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
- Multidiscipline Modeling in Materials and Structures
- Optics & Laser Technology
- Materials Chemistry and Physics
- Journal of the Australian Ceramic Society
- Additive Manufacturing, Engineering Science and Technology
- Journal of Pharmaceutical and Biomedical Analysis
- Journal of Adhesion Science and Technology
- Journal of Optoelectronics and Advanced Materials
- University Politehnica of Bucharest Scientific Bulletin Series B - Chemistry and Materials Science
- Revista de Chimie
- Key Engineering Materials
- Advanced Materials Research

International conferences reviewer

BiomMedD2014, RoMat2014, BioRemed2015, ECOB2015, Materials and Technologies in Dentistry: Defects, Processing and Characterization, Orthopedic Biomaterials – From Materials Science to Clinical Applications, BiomMedD2016, RoMat2016, BioRemed2017, RoMat2018, BiomMedD2018, BioRemed2019.

Date,

26.06.2020

Signature,

Prof. Florin Miculescu