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Instituția unde este titular: . Universitatea Politehnica București

Facultatea: Știința și Ingineria Materialelor

Departamentul: Știința Materialelor Metalice, Metalurgie Fizică

## L I S T A

### lucrărilor științifice în domeniul disciplinelor din postul didactic

#### I. A-TEZE DE ABILITARE

- A. "Contributions on synthesis of natural origin ceramics and analysis on biomaterials surface and interfaces, 2019.

#### T-TEZE DE DOCTORAT

- T. "Metode moderne de investigare a proprietăților termofizice ale materialelor cu aplicabilitate în domeniul biomaterialelor, Conducător științific: Prof.dr.fiz. Dionezie Bojin, Universitatea POLITEHNICA București, 2010.

#### II. CĂRȚI PUBLICATE (C)

**Ca** – Cărți / cursuri (manuale) pentru uzul studenților, publicate în edituri recunoscute.

- Ca.1. **M. Miculescu**, I. Antoniac, A. Seceleanu, "Introducere în biomateriale – note de curs", Ed. Politehnica Press, 2019, ISBN 978-606-515-895-5

**Cb** – Cărți de specialitate publicate în edituri recunoscute (autor, coautor, editor).

- Cb.1. **M. Miculescu**, Proprietățile termofizice ale sistemelor metalo-ceramice, Ed. Politehnica Press, 2019, ISBN 978-606-515-863-4

#### III. ALTE MATERIALE PUBLICATE (I,D)

**I** - Culegeri și îndrumare publicate (separate în edituri cu ISBN și în tipografiile locale/de instituții sau de uz intern).

**D** - Alte lucrări publicate: capitole publicate în volume colective, capitole teoretice redactate, sisteme de laborator funcționale etc.

- D.1. 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", Wiley, Atul Tiwari, Baldev Raj Editors, pag. 393-410, ISBN: 978-1-119-11757-5, 2015.
- D.2. 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, Ed. IV. Antoniac, Springer, pag. 1217-1246, DOI: 10.1007/978-3-319-12460-5-56, ISBN 978-3-319-12459-9, 2016.
- D.3. F. Miculescu, A. Maidaniuc, G.E. Stan, M. Miculescu, S.I. Voicu, A. Cîmpeanu, V. Mitran, D. Batalu, "Tuning hydroxyapatite particles characteristics for solid free fabrication of bone scaffolds", in Advanced Composite Materials (Advanced Materials Book Series), Eds. Ashutosh Tiwari, Mohammad Rabia Alenezi and Seong Chan Jun, WILEY-Scrivener Publishing, USA, pag. 321-397, DOI: 10.1002/9781119242666, ISBN 987-1-119-24253-6, 2016.
- D.4. 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" book edited by J Thirumalai InTech, ISBN 978-953-51-5731-1, 2018.

- D.5. F. Miculescu, AC. Mocanu, GE. Stan, A. Maidaniuc, M. Miculescu, SI. Voicu, I. Antoniac, "Bioceramics derived from marble and sea shells as potential bone substitution materials", in Bioceramics and biocomposites: from experiment to clinical use, Ed.I. Antoniac, Wiley, ISBN-10: 1119049342, 2019.
- D.6. Biommed VI - Key Engineering Materials, Editori I. Antoniac, M. Sinescu, M. Miculescu, publicare 2015.

#### IV. ARTICOLE / STUDII IN EXTENSO PUBLICATE (R,V)

**Ris.** Reviste de specialitate de circulație internațională recunoscute (cotate / indexate ISI Thomson Reuters, sau indexate in alte Baze de Date Internationale - BDI specifice domeniului, care fac un proces de selectie a revistelor pe baza unor criterii de performanta). *Se mentioneaza la fiecare lucrare includerea in Baza ISI [Accession Number, WOS=..., ultimul Factor Impact, ISSN] si/sau denumirea altei (altor) BDI.*

- Ris.1. Laptoiu, S.A.; Cojocar, M.O.; Miculescu, M.; Branzei, M. Parameters Tailoring on the Deposition of Hydroxyapatite by Pulsed Electrical Discharge. *Materials* 2024, 17, 4583. <https://doi.org/10.3390/ma17184583>  
IF 3.1 Punctaj  $(50 \times 3.1) / 4 = 38.750$
- Ris.2. Streza, A.; Antoniac, A.; Manescu, V.; Ciocoiu, R.; Cotrut, C.-M.; Miculescu, M.; Miculescu, F.; Antoniac, I.; Fosca, M.; Rau, J.V.; In Vitro Studies Regarding the Effect of Cellulose Acetate-Based Composite Coatings on the Functional Properties of the Biodegradable Mg3Nd Alloys. *Biomimetics* 2023, 8, 526. <https://doi.org/10.3390/biomimetics8070526>  
IF 3.1 Punctaj  $(50 \times 3.1) / 11 = 14.090$
- Ris.3. Călinoiu, Ș.G.; Bîcleșanu, C.; Florescu, A.; Stoia, D.I.; Dumitru, C.; Miculescu, M. Comparative Study on Interface Fracture of 4th Generation 3-Steps Adhesive and 7th Generation Universal Adhesive. *Materials* 2023, 16, 5834. <https://doi.org/10.3390/ma16175834>  
IF 3.1 Punctaj  $(50 \times 3.1) / 6 = 25.833$
- Ris.4. Dragomir, L.; Antoniac, I.; Manescu, V.; Antoniac, A.; Miculescu, M.; Trante, O.; Streza, A.; Cotruț, C.M.; Forna, D.A. Microstructure and Corrosion Behaviour of Mg-Ca and Mg-Zn-Ag Alloys for Biodegradable Hard Tissue Implants. *Crystals* 2023, 13, 1213. <https://doi.org/10.3390/cryst13081213>  
IF 3.1 Punctaj  $(50 \times 3.1) / 9 = 17.220$
- Ris.5. Dawod, N.; Miculescu, M.; Antoniac, I.V.; Miculescu, F.; Agop-Forna, D. Metal–Ceramic Compatibility in Dental Restorations According to the Metallic Component Manufacturing Procedure. *Materials* 2023, 16, 5556. <https://doi.org/10.3390/ma16165556>  
IF 3.1 Punctaj  $(50 \times 3.1) / 5 = 31.000$
- Ris.6. Bită, T.; Antoniac, A.; Ciuca, I.; Miculescu, M.; Cotrut, C.M.; Paltanea, G.; Dura, H.; Corneschi, I.; Antoniac, I.; Carstoc, I.D.; et al. Effect of Fluoride Coatings on the Corrosion Behavior of Mg–Zn–Ca–Mn Alloys for Medical Application. *Materials* 2023, 16, 4508. <https://doi.org/10.3390/ma16134508>  
IF 3.1 Punctaj  $(50 \times 3.1) / 11 = 14.090$
- Ris.7. Mocanu, A.-C.; Miculescu, F.; Constantinescu, A.E.; Pandele, M.-A.; Voicu, Ș.I.; Cîmpean, A.; Miculescu, M.; Negrescu, A.M. Selection Route of Precursor Materials in 3D Printing Composite Filament Development for Biomedical Applications. *Materials* 2023, 16, 2359. <https://doi.org/10.3390/ma16062359>  
IF 5.1 Punctaj  $(50 \times 5.1) / 8 = 17.036$
- Ris.8. Mocanu, A.-C.; Miculescu, F.; Stan, G.E.; Tite, T.; Miculescu, M.; Țierean, M.H.; Pascu, A.; Ciocoiu, R.-C.; Butte, T.M.; Ciocan, L.-T. Development of Ceramic Coatings on Titanium Alloy Substrate by Laser Cladding with Pre-Placed Natural Derived-Slurry: Influence of Hydroxyapatite Ratio and Beam Power. *Ceram. Int.* 2023, 49, 7, 10445–10454.  
IF 3.748 Punctaj  $(50 \times 3.748) / 11 = 31.875$
- Ris.9. Dawod, N.; Antoniac, A.; Antoniac, I.; Miculescu, M.; Robu, A.; Ungureanu, E.; Agopforna, D.; Cârștoc, I.D.; Dura, H.; Dragomir, B.R. Corrosion Behavior and Microstructural Analysis of Some Co-Cr Alloys Used for Metal-Ceramic Restorations in Dentistry. *U.P.B. Sci. Bull., Ser. B* 2023, 85, 4.  
IF 0.06 Punctaj  $(50 \times 0.06) / 10 = 0.300$
- Ris.10. Quan, P.H.; Antoniac, I.; Miculescu, F.; Antoniac, A.; (Păltănea), V.M.; Robu, A.; Bița, A.-I.; Miculescu, M.; Săceleanu, A.; Bodog, A.D.; Săceleanu, V. Fluoride Treatment and In Vitro Corrosion Behavior of Mg-Nd-Y-Zn-Zr Alloys Type. *Materials* 2022, 15, 566. <https://doi.org/10.3390/ma15020566>  
IF 3.748 Punctaj  $(50 \times 3.748) / 11 = 17.036$
- Ris.11. Manescu (Paltanea), V.; Antoniac, I.; Antoniac, A.; Paltanea, G.; Miculescu, M.; Bită, A.-I.; Laptoiu, S.; Niculescu, M.; Stere, A.; Paun, C.; Cristea, M.B. Failure Analysis of Ultra-High Molecular Weight Polyethylene Tibial Insert in Total Knee Arthroplasty. *Materials* 2022, 15, 7102. <https://doi.org/10.3390/ma15207102>  
IF 3.748 Punctaj  $(50 \times 3.748) / 11 = 17.036$

- Ris.12. Miculescu, M.; Ion, O.A. Regulation and Certification of (Bio)Medical Engineers: A Case Study on Romania. *Int. J. Environ. Res. Public Health* 2022, 19, 9004. <https://doi.org/10.3390/ijerph19159004>  
IF 4.614 Punctaj  $(50 \times 4.614) / 2 = 115.35$
- Ris.13. Bița, A.-I.; Antoniac, I.; Miculescu, M.; Stan, G.E.; Leonat, L.; Antoniac, A.; Constantin, B.; Forna, N. Electrochemical and In Vitro Biological Evaluation of Bio-Active Coatings Deposited by Magnetron Sputtering onto Biocompatible Mg-0.8Ca Alloy. *Materials* 2022, 15, 3100. <https://doi.org/10.3390/ma15093100>  
IF 3.748 Punctaj  $(50 \times 3.748) / 8 = 23.425$
- Ris.14. Antoniac, I; Miculescu, M ; Manescu, V; Stere, A; Quan, PH; Paltanea, G; Robu, A; Earar, K, Magnesium-Based Alloys Used in Orthopedic Surgery, *MATERIALS*, Vol. 15(3); DOI: 10.3390/ma15031148; 2022  
IF 3.748 Punctaj  $(50 \times 3.748) / 8 = 23.425$
- Ris.15. Antoniac, I; Adam, R; Bită ; Miculescu, M; Trante, O ; Petrescu, IM; Pogarasteanu, M Comparative Assessment of In Vitro and In Vivo Biodegradation of Mg-1Ca Magnesium Alloys for Orthopedic Applications, *MATERIALS*, Volume14, Issue1, DOI10.3390/ma14010084, 2021  
IF 3.623 Punctaj  $(50 \times 3.623) / 7 = 25.878$
- Ris.16. AC. Mocanu, F. Miculescu, M. Miculescu, RC. Ciocoiu, AM. Pandele, GE. Stan, A. Cimpean, SI. Voicu, LT. Ciocan, Comprehensive analysis of compatible natural fibre as sacrificial porogen template for tailored ceramic 3D bioproducts destined for hard tissue reconstruction, *Ceramics International*, Volume: 47, Issue: 4, Pages: 5318-5334, DOI: 10.1016/j.ceramint.2020.10.113, WOS:000608672000001, ISSN: 0272-8842, eISSN: 1873-3956, 2021. Q1,  
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- Ris.17. AC. Mocanu, F. Miculescu, GE. Stan, AM. Pandele, MA. Pop, RC. Ciocoiu, SI. Voicu, LT. Ciocan, Fiber-Templated 3D Calcium-Phosphate Scaffolds for Biomedical Applications: The Role of the Thermal Treatment Ambient on Physico-Chemical Properties, *Materials*, Volume: 14, Issue: 9, Article Number: 2198, DOI: 10.3390/ma14092198, WOS:000650579700001, PubMed ID: 33922963, eISSN: 1996-1944, 2021.  
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- Ris.18. Mocanu, AC; Miculescu, M; Ciocoiu, RC; Butte, TM; Bită, AI; Milea, CG; Antoniac, A; Vasilescu, M; Trante, O; Pop, C; Ciocan, LT, Comparative Framework Of Calcium Phosphates-Based Products Derived From Sustainable Marine And Terrestrial Resources For Biomedical Applications, *Studia Universitatis Babes-Bolyai Chemia*, Volume 65, Issue4, Page73-84, DOI10.24193/subbchem.2020.4.06, 2020, WOS:000601368800006  
 $(50 \times 0.447) / 11 = 2.031$
- Ris.19. Mocanu, AC, Miculescu, M, Machedon-Pisu, T; Maidaniuc, A; Ciocoiu, RC; Ionita, M; Pasuk, J; Stan, GE; Miculescu, F, Internal and external surface features of newly developed porous ceramics with random interconnected 3D channels by a fibrous sacrificial porogen method, *Applied Surface Science*, 489, 226-238, DOI: 10.1016/j.apsusc.2019.05.354, ISSN: 0169-4332, WOS:000474530600024,  
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- Ris.20. Buruiana, AM; Biclesanu, FC; Antoniac, IV; Miculescu, M; Predescu, AM; Hancu, V, Clinical-statistical Study on the Biomimetic Adhesion of Whole Ceramic Inlays, *Revista de Chimie*, 70(6), 1934-1941, ISSN: 0034-7752, WOS:000475860100010  
IF 1,755  $(50 \times 1,755) / 6 = 14.625$
- Ris.21. Laptoiu, D; Laptoiu, S; Miculescu, M, Porous Trabecular Implants - Surface Analysis, Design and 3D Printing Prototyping, *Book Series E-Health and Bioengineering Conference*, 2020, WOS:000646194100144  
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- Ris.22. AC. Mocanu, F. Miculescu, GE. Stan, RC. Ciocoiu, MC. Corobea, M. Miculescu, LT. Ciocan, Preliminary Studies on Graphene-Reinforced 3D Products Obtained by the One-Stage Sacrificial Template Method for Bone Reconstruction Applications, *Journal of Functional Biomaterials*, Volume: 12, Issue: 1, Article Number: 13, DOI: 10.3390/jfb12010013, WOS:000633127900001, PubMed ID: 33673093, eISSN: 2079-4983, 2021, Punctaj  $(50 \times 0.1) / 7 = 0.555$
- Ris.23. Miculescu, F; Luta, C; Constantinescu, AE; Maidaniuc, A; Mocanu, AC; Miculescu, M; Voicu, SI; Ciocan, LT, Considerations and Influencing Parameters in EDS Microanalysis of Biogenic Hydroxyapatite, *Journal of Functional Biomaterials*, Volume: 11 Issue: 4, Article Number: 82, DOI: 10.3390/jfb11040082, WOS:000601502900001, PubMed ID: 33203117, eISSN: 2079-4983, 2020, Punctaj  $(50 \times 0.1) / 8 = 0.555$
- Ris.24. AC Mocanu, G.E. Stan, A. Maidaniuc, M. Miculescu, VI Antoniac, R.C. Ciocoiu, S.I. Voicu, , V. Mitran, A. Campean, F. Miculescu, Naturally-Derived Biphasic Calcium Phosphates through Increased Phosphorus-Based Reagent Amounts for Biomedical Applications, *Materials* 2019, 12(3), 1338–1349, DOI: 10.3390/ma12030381, ISSN: 1996-1944. WOS:000460768000050,

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- Ris.33. A Maidaniuc, M. Miculescu, S.I. Voicu, L.T. Ciocan, M. Niculescu, M.C. Corobea, M.E. Rada, F. Miculescu, Effect of micron sized silver particles concentration on the adhesion induced by sintering and antibacterial properties of hydroxyapatite microcomposites, *Journal of Adhesion Science and Technology*, Volume 30, Issue 17, 2016, Pages 1829-1841, DOI: 10.1080/01694243.2016.1163808; WOS:000374585600001; ISSN: 0169-4243.
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- Ris.38. Miculescu, F.; Pencea, I; Miculescu, M; Antoniac, I; Ciocan, L.T.; Ernuteanu A.; Energy Dispersive Techniques Using X-ray Fluorescence with Primary X-Rays for Human Hard Tissues Analysis *BIOMMED V Book Series: Key Engineering Materials*, Volume: 583, Pages: 129-133, 2014, WOS:000336552600022, ISSN: 1013-9826
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- Ris.49. Miculescu, F; Maidaniuc, A; Miculescu, M; Batalu, ND; Ciocoiu, RC; Voicu, SI; Stan, GE; Thakur, VK, Synthesis and Characterization of Jellified Composites from Bovine Bone-Derived Hydroxyapatite and Starch as Precursors for Robocasting, *ACS OMEGA*, 3 (1), Pages: 1338-1349, DOI: 10.1021/acsomega.7b01855, WOS:000427933200143, ISSN: 2470-1343.
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