

Universitatea Națională de Știință și Tehnologie POLITEHNICA București

Facultatea: Știința și Ingineria Materialelor

Departamentul: Știința Materialelor Metalice, Metalurgie Fizică

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Gradul didactic: Ș.L. dr. ing. ec.

L I S T A

lucrărilor științifice în domeniul disciplinelor din postul didactic

A. Teza de doctorat

A1. Contribuții privind dezvoltarea unor noi materiale din categoria cimenturilor acrilice antimicrobiene utilizate pentru fixarea endoprotezelor de șold: Prof.dr.ing. Iulian ANTONIAC

B. Cărți și capitole în cărți publicate în ultimii 10 ani

1. Contribuții privind dezvoltarea unor noi materiale din categoria cimenturilor acrilice antimicrobiene utilizate pentru fixarea endoprotezelor de șold: Prof.dr.ing. Iulian ANTONIAC
2. Autori: Grosu Elena, Antoniac Aurora, Antoniac Iulian, Raiciu Anca Daniela, **Robu Alina**, *Capitol Perspective in sistemele terapeutice transdermice in Materiale utilizate în medicină – aspecte interdisciplinare*, editor Antoniac Iulian;; paginile 1-39, 2022, Editura Printech, Bucuresti, ISBN 978-606-23-1306-7

C. Lucrări indexate ISI/BDI publicate în ultimii 10 ani

1. Veronica Manescu, Gheorghe Paltanea, Aurora Antoniac, Lucian Gheorghe Gruionu, **Alina Robu**, Marius Vasilescu, Stefan Alexandru Laptoiu, Ana Iulia Bita, Georgiana Maria Popa, Andreea Liliana Cocosila, Vlad Silviu, Anca Porumb, Mechanical and Computational Fluid Dynamic Models for Magnesium-Based Implants, **Materials**, Volume 17, Issue 4, Page 830, 2024, Document Type Article, eISSN 1996-1944, <https://doi.org/10.3390/ma17040830>
2. Fornă, DA; **Robu, A***; Budacu, C; Petre, M; Topoliceanu, C; Dana, SM; Stamatin, O; Antoniac, I; Fornă, N, Study regarding the role of barrier membranes in guided bone regeneration techniques, **Romanian Journal of Oral Rehabilitation**, Volume 15, Issue 2, Page 13-25, 2023, Document Type Article, Accession Number WOS: 001035463900002, eISSN 2066-7000
3. Nazem Dawod, Dan Ioan Stoia, Sergiu Focșăneanu, Aurora Antoniac, **Alina Robu***, Horațiu Dura, Ioana Dana Cârștoc, Bogdan Radu Dragomir, Shear stress analysis by finite elements of a metal-ceramic dental bridge on a CoCr alloy support, **UPB Scientific Bulletin series B – Chemistry and materials science**, Volume 85, Issue 3, Page 193 - 206, 2023, Document Type Article, Accession Number WOS:000805934600015, ISSN 1454-2331
4. Dawod, N; Antoniac, A; Antoniac, I; Miculescu, M; Robu, A; Ungureanu, E; Agop-Fornă, D (; Cârștoc, ID; Dura, H; Dragomir, BR, Corrosion behavior and microstructural analysis of some Co-Cr alloys used for metal- ceramic restorations in dentistry, **UPB Scientific Bulletin series B – Chemistry and materials science**, Volume 85, Issue 4, Page 317-330, 2023, Document Type Article, Accession Number WOS: 001126670800025, ISSN 1454-2331

5. Lavinia Dragomir (Nicolescu), Aurora Antoniac, Veronica Manescu (Paltanea), **Alina Robu**, Mihaela Dinu, Iulian Pana, Cosmin Mihai Cotrut, EararKamel, Iulian Antoniac, Julietta V. Rau, Alina Vladescu (Dragomir), Preparation and characterization of hydroxyapatite coating by magnetron sputtering on Mg–Zn–Ag alloys for orthopaedic trauma implants, **Ceramics International**, (Q1) Volume 49, Issue 16, 2023, Pages 26274-26288, ISSN 0272-8842, <https://doi.org/10.1016/j.ceramint.2023.05.116>.
6. Gheorghită, D.; Moldovan, H.; **Robu, A.**; Bița, A.-I.; Grosu, E.; Antoniac, A.; Corneschi, I.; Antoniac, I.; Bodog, A.D.; Băcilă, C.I. Chitosan-Based Biomaterials for Hemostatic Applications: A Review of Recent Advances. **International Journal of Molecular Science**, (Q1), **2023**, *24*, 10540. <https://doi.org/10.3390/ijms241310540>
7. Marcuț, L.; Manescu, V.; Antoniac, A.; Paltanea, G.; **Robu, A.**; Mohan, A.G.; Grosu, E.; Corneschi, I.; Bodog, A.D. Antimicrobial Solutions for Endotracheal Tubes in Prevention of Ventilator-Associated Pneumonia. **Materials**, (Q1), **2023**, *16*, 5034. <https://doi.org/10.3390/ma16145034>
8. Paltanea, G.; Manescu, V.; Antoniac, I.; Antoniac, A.; Nemoianu, I.V.; **Robu, A.**; Dura, H. A Review of Biomimetic and Biodegradable Magnetic Scaffolds for Bone Tissue Engineering and Oncology. **International Journal Of Molecular Sciences**, (Q1), **2023**, *24*, 4312. <https://doi.org/10.3390/ijms24054312>
9. Streza, A.; Antoniac, A.; Manescu, V.; Paltanea, G.; **Robu, A.**; Dura, H.; Verestiuc, L.; Stanica, E.; Voicu, S.I.; Antoniac, I.; et al. Effect of Filler Types on Cellulose-Acetate-Based Composite Used as Coatings for Biodegradable Magnesium Implants for Trauma. **Materials**, (Q1), **2023**, *16*, 554. <https://doi.org/10.3390/ma16020554>
10. Gheorghita, D; **Robu, A***; Antoniac, A; Antoniac, I; Ditu, LM; Raiciu, AD; Tomescu, J; Grosu, E; Saceleanu, A, In Vitro Antibacterial Activity of Some Plant Essential Oils against Four Different Microbial Strains / **Applied Sciences-Basel** (Q2), Volume 12, Issue 19, Article Number 9482, 2022, DOI 10.3390/app12199482, Document Type Article, Accession Number WOS: 000866648700001, FI = 2.838, eISSN 2076-3417
11. Gheorghita, D; Grosu, E; **Robu, A**; Ditu, LM; Deleanu, IM; Pircalabioru, GG; Raiciu, AD; Bită, AI; Antoniac, A; Antoniac, VI, Essential Oils as Antimicrobial Active Substances in Wound Dressings / **Materials** (Q1), Volume 15, Issue 19, Article Number 6923, 2022, DOI 10.3390/ma15196923, Document Type Article, Accession Number WOS:000866914900001, FI = 3.748, eISSN 1996-1944
12. **Robu, A**; Antoniac, A; Ciocoiu, R; Grosu, E; Rau, JV; Fosca, M; Krasnyuk, Jr; Pircalabioru, GG; Manescu, V; Antoniac, I; Gradinaru, S., Effect of the Antimicrobial Agents Peppermint Essential Oil and Silver Nanoparticles on Bone Cement Properties / **Biomimetics** (Q2), Volume 7, Issue 3, Article Number 137, 2022, DOI 10.3390/biomimetics7030137, Document Type Article, Accession Number WOS:000858397900001, FI = 3.743, eISSN 2313-7673
13. Cimpean, SI; Burtea, ALC; Chiorean, RS; Dudescu, MC; Antoniac, A; **Robu, A**; Campian, RS; Timis, LI.- Evaluation of Bond Strength of Four Different Root Canal Sealers / **Materials** (Q1), Volume 15, Issue 14, Article Number 4966, 2022, DOI 10.3390/ma15144966, Document Type Article, Accession Number WOS:000833630800001, FI = 3.748, eISSN 1996-1944
14. **Robu, A.**; Ciocoiu, R.; Antoniac, A.; Antoniac, I.; Raiciu, A.D.; Dura, H.; Forna, N.; Cristea, M.B.; Carstoc, I.D. *Bone Cements Used for Hip Prosthesis Fixation: The Influence of the Handling Procedures on Functional Properties Observed during In Vitro Study*, **Materials** (Q1), Volume 15, Issue 9, Article Number 2967, 2022, DOI 10.3390/ma15092967, Document Type Article, Accession Number WOS: 000796111800001, FI = 3.748, eISSN 1996-1944
15. Antoniac, I; Miculescu, M; Manescu, V; Stere, A; Quan, PH; Paltanea, G; **Robu, A**; Earar, K. Magnesium-Based Alloys Used in Orthopedic Surgery, **MATERIALS** (Q1), Volume 15, Issue 3,

- Article Number 1148, 2022, DOI 10.3390/ma15031148, Document Type Review, Accession Number WOS:000756544000001, FI = 3.748, eISSN 1996-1944
16. Milea, G.C.; Neculescu, D.A.; Ghiban, B; Stere, A; **Robu, A**; Bujor, C; Ene, R; Forna, Failure analyses of a non-cemented hip prostheses faildduet o the stem fracture, **UPB Scientific Bulletin series B – Chemistry and materials science**, Volume 84, Issue 2, Page 175-186, 2022, Document Type Article, Accession Number WOS:000805934600015, ISSN 1454-2331
 17. Quan, PH; Antoniac, I; Miculescu, F; Antoniac, A; Manescu, V; **Robu, A**; Bitu, AI; Miculescu, M; Saceleanu, A; Bodog, AD; Saceleanu, V, Fluoride Treatment and In Vitro Corrosion Behavior of Mg-Nd-Y-Zn-Zr Alloys Type, **Materials** (Q1), Volume 15, Issue 2, Article Number 566, 2022, DOI 10.3390/ma15020566, Document Type Article, Accession Number WOS:000757583600001, FI = 3.748, eISSN 1996-1944
 18. **Robu, A.**; Antoniac, A.; Grosu, E.; Vasile, E.; Raiciu, A.D.; Iordache, F.; Antoniac, V.I.; Rau, J.V.; Yankova, V.G.; Ditu, L.M.; Saceleanu, V. *Additives Imparting Antimicrobial Properties to Acrylic Bone Cements*, **Materials** (Q1), Volume 14, Issue 22, ArticleNumber 7031, 2021, , DOI 10.3390/ma14227031, Document TypeArticle, AccessionNumber WOS:000727445400001, FI = 3.748, eISSN 1996-1944
 19. Antoniac Petrut, **Ivanov Alina**, Iulian Vasile Antoniac, Florin Miculescu, Cosmeleata Georgeta - Experimental researches about technological and microstructural aspects in the case of cobalt-chromium dental alloys / *European Cells & Materials.*, Volume 13, (Suppl. 3):28, Published 2007, Document Type Article, ISSN 1473-2262

D. Lucrări publicate în ultimii 10 anii în reviste și volume de conferințe cu referenți (neindexate)

- Reviste

1. -
- **Selecție cu maximum 20 lucrări în volume de conferințe**
1. Lavinia Dragomir, **Alina Robu**, Aurora Antoniac*, Iulian Antoniac, Alina Vladescu, Horatiu Dura, Norin Forna, Mihai Bogdan Cristea and Ioana Carstoc, Biodegradation Evaluation of some Magnesium-based Alloys type Mg-Zn-Zr-Ag before and after Synthetic Hydroxyapatite Coating using RF-Magnetron Sputtering, International Conference on Innovative Research, ICIR EUROINVENT, IASI, May, 26-27, 2022
2. Ana-Iulia Bița, Aurora Antoniac, Florin Miculescu, **Alina Robu**, Marian Miculescu, Iulian Antoniac - The influence of the test environment on the evaluation of the biodegradation of the Mg0.8Ca alloy - - 9th International Conference “Biomaterials, Tissue Engineering & Medical Devices” BIOMMEDD’2022, Bucuresti, Romania
3. Dragoș Alexandrescu, Iulian Antoniac, Robert Ciocoiu, Alexandru Stere, **Alina Robu** – Combining additive manufacturing with conventional production methods to obtain new materials for prosthetic cups- 9th International Conference “Biomaterials, Tissue Engineering & Medical Devices” BIOMMEDD’2022, Bucuresti, Romania
4. Alexandru Streza, Antoniac Aurora, **Alina Robu**, Diana Popescu, Voicu Stefan, Robert Ciocoiu, Antoniac Iulian - Characterization of the polylactic acid for magnesium alloys- 9th International Conference “Biomaterials, Tissue Engineering & Medical Devices” BIOMMEDD’2022, Bucuresti, Romania
5. **Alina Robu***, Alina Antoniac, Iulian Antoniac, Robert Ciocoiu, Julietta V. Rau, Marco Fosca, Ivan I. Krasnyuk (Jr.), Sebastian Gradinaru, Study of the mechanical properties of new types of antimicrobial

- acrylic bone cement -- oral presentation – Biomaterials and Novel Technologies for Healthcare, BIOMAH 2022, Roma, Italia
6. Iulian Spânu*, Alina Antoniac, Iulian Antoniac, **Alina Robu**, Daniela Gheorghită, Alexandru Streza - Copper-based composite coating as an Antimicrobial Surface – Biomaterials and Novel Technologies for Healthcare, BIOMAH 2022, Roma, Italia
 7. **Alina Robu***, Aurora Antoniac, Iulian Antoniac, Serban Nicolae, Eugeniu Vasile, Robert Ciocoiu, Adrian Ghiurau, Lavinia Marcut, Aurel Mohan - The impact of the addition of different antimicrobial agents on the structure and properties of PMMA-based bone cements – oral presentation - 9th International Conference on Materials Science and Technologies – RoMat 2022, Bucuresti, Romania
 8. Daniela Gheorghita, Elena Grosu, **Alina Robu**, Lia Mara Ditu, Iuliana Mihaela Deleanu, Gratiela Gradisteanu Pircalabioru, Aurora Antoniac, Iulian Antoniac – Antimicrobial effects generated by essential oils in wound dressings – oral presentation - 9th International Conference on Materials Science and Technologies – RoMat 2022, Bucuresti, Romania
 9. Andrei Scripcaru, Paul Dan Sirbu, Robert Ciocoiu*, Ramona Turcu, Octavian Trante, Iulian Antoniac, **Alina Robu**, Alexandru Streza - A wetting study on the surface of stressed humerus fixation plates - 9th International Conference on Materials Science and Technologies – RoMat 2022, Bucuresti, Romania
 10. Iulian Spânu*, Aurora Antoniac, **Alina Robu**, Daniela Gheorghită, Alexandru Streza, Iulian Antoniac – Antimicrobial Copper-Based Coatings: Potential Biomedical Applications - 9th International Conference on Materials Science and Technologies – RoMat 2022, Bucuresti, Romania
 11. **Alina Robu**, Iulian Antoniac, Veronica Mănescu (Păltânea), Robert Bololoi, Lavinia Nicolescu - Mechanical properties and in vitro degradation on biodegradable Mg-Zn-Ca alloys- International Conference BioReMed 2023, Sibiu, Romania
 12. Aurora Antoniac, Iulian Antoniac, **Alina Robu**, Gheorghe Păltanea, Daniela Gheorghită, Iuliana Corneschi - Polymeric-based coatings for biodegradable Mg alloys - International 2023, Sibiu, Romania
 13. Nazem Dawod, Iulian Antoniac, Marian Miculescu, Aurora Antoniac, **Alina Robu**, Elena Ungureanu Influence of alloying with precious metals on the microstructure and corrosion resistance of the Co-Cr dental alloy- International Conference BioReMed 2023, Sibiu, Romania
 14. Maria Eleonora Gherghina, Lavinia Mărcuț, Veronica Mănescu (Păltânea), Aurora Antoniac, Gheorghe Păltânea, **Alina Robu**, Aurel George Mohan, Iuliana Corneschi, Robert Ciocoiu, Iulian Antoniac Wetting properties of 3D printed antimicrobial PLA- International Conference BioReMed 2023, Sibiu, Romania
 15. Adriana Ileana (Blăjan), Robert Ciocoiu, Ion Ciucă, Doru Blăjan, Tiberiu Bița, **Alina Robu**, Gabriel Cristescu, Nicolae Văleanu Relating the structure with the mechanical behavior of surgical guides obtained by FDM- International Conference BioReMed 2023, Sibiu, Romania
 16. Iulian Spânu, Aurora Antoniac, **Alina Robu**, Alexandru Streza, Iulian Antoniac Surface properties for the thermal spray copper-based coatings on different metallic alloys- International Conference BioReMed 2023, Sibiu, Romania
 17. Sergiu Focsaneanu, Antoniac Iulian, Aurora Antoniac, **Alina Robu**, Spânu Iulian A systematic review of dental surgical drill- International Conference BioReMed 2023, Sibiu, Romania.

18. **Alina Robu***, Aurora Antoniac, Daniela Gheorghita, Iulian Antoniac - Antimicrobial effect of four essential oils for wound dressing application – International Conference 3Biomat 2023, Bucuresti, Romania - poster presentation.
19. Veronica Manescu (Paltanea), Aurora Antoniac, Iulian Antoniac, Gheorghe Paltanea, **Alina Robu** - Biodegradation behaviour of magnesium alloys Mg-Zn-Ag coated with hydroxyapatite in simulated body fluid - The 14th International Conference on Key Engineering Materials (ICKEM 2024), Dubai, UAE – oral presentation.
20. Iuliana Corneschi, Lavinia Mărcuț, Larisa Popescu, Aurora Antoniac, Veronica Paltanea, **Alina Robu**, Aurel Mohan - Improving the surface of the endotracheal tube against biofilm formation - The 13th International Conference on Materials Science & Engineering (BRAMAT 2024), Braşov, România – poster presentation.

E. Brevete obținute în întreaga activitate

1. -

Data:

21.03.2024

Semnătura:

