

Lista de lucrări în domeniul de știință definit de disciplinele din postul scos la concurs

NUMELE ȘI PRENUMELE: JAKAB-FARKAS László

I. LISTA PUBLICAȚIILOR RELEVANTE

1. E. Domokos, **L. Jakab-Farkas**, B. Darkó, B. Bíró-Janka, Gy. Mara, Cs. Albert and A. Balog: "Increase in Artemisia annua Plant Biomass Artemisinin Content and Guaiacol Peroxidase Activity Using the Arbuscular Mycorrhizal Fungus Rhizophagus irregularis", *Frontiers in Plant Science*, vol. 9, pp. 1-9, 2018
2. **L. Jakab-Farkas**, A. Kelemen, A.-Zs. Fekete, G. Strnad, S. Papp, I. Vida-Simiti and D. Biró: "*Some remarks on the ternary TiAlSiN thin films developed under specific conditions*", *Acta technica napocensis- Series: Applied Mathematics, Mechanics, and Engineering*, vol. 61, pp. 131-136, 2018
3. A. Zs. Fekete, A. Kelemen and **L. Jakab-Farkas**: "*Multilevel Distributed Embedded System for Control of the DC Magnetron Sputtering Process*", *Acta Universitatis Sapientiae-Electrical and Mechanical Engineering*, vol. 9, pp. 43, 2017
4. G. Strnad, **L. Jakab-Farkas** and D. Portan: "*Current-time dependence in self-organized TiO₂ layers synthesis by electrochemical anodization*", *Academic Journal of Manufacturing Engineering*, vol. 14, pp. 112-118, 2016
5. G. Strnad, **L. Jakab-Farkas**, S. Papp, A.- Zs. Fekete, D. Biro and I. Vida-Simiti: "*Optimization of reactive sputtering technology for hard coatings deposition*", in *Proceedings of Applied Mechanics and Materials*, vol. 657, pp. 246-250, 2014
6. G. Strnad, **L. Jakab-Farkas**: "*Improving the Accuracy of Low-load Vickers Microhardness Testing of Hard Thin Films*", in *Proceedings of Procedia Technology*, vol. 12, pp. 289-294, 2014
7. L. Kenéz, N. Kutasi, E. Filep, **L. Jakab-Farkas** and I.Á. Szöcs: "*Heat-Treatment of 16MnCr Steel in a Linear Non-Isotherm Plasma Reactor*", *Acta Universitatis Sapientiae-Electrical and Mechanical Engineering*, vol. 5, pp. 61-72, 2013
8. **L. Jakab-Farkas**, D. Biro, G. Strnad and I. Vida-Simiti: "*Preparation and characterization of (Ti, Al, Si)N coatings developed by d.c. reactive magnetron sputtering*", *Journal of Optoelectronics and Advanced Materials*, vol. 15, pp. 696-702, 2013
9. A.- Zs. Fekete, **L. Jakab-Farkas**, S. Papp and T.Cs. Balogh: "*Dynamic Pressure Control in Reactive Sputtering Process*", *Acta Universitatis Sapientiae-Electrical and Mechanical Engineering*, vol. 4, pp. 33-44, 2012
10. D Biro, **L Jakab-Farkas**, G Strnad, V Bolos and I Vida-Simiti: "Effect of nitrogen concentration on microstructure and microhardness of nanostructured (Ti, Al, Si) N coatings developed by dc reactive magnetron sputtering", *Journal of Optoelectronics and Advanced Materials*, vol. 13, pp. 859, 2011

II. LISTA COMPLETĂ DE PUBLICAȚII, CREAȚII, INVENTII

A. Teza de doctorat.

CERCETĂRI PRIVIND OBȚINEREA ȘI CARACTERIZAREA STRATURILOR SUBȚIRI FUNCȚIONALE NANOSTRUCTURATE PE BAZĂ DE Ti-Al-Si-N;
Conducător Prof. Dr. ing. Ioan Vida-Simiti;
Instituția: Universitatea Tehnică din Cluj-Napoca;
Calificativ: Foarte bine;

B. Cărți publicate

B1. Cărți (manuale, monografii, tratate, îndrumare etc.) publicate la edituri recunoscute în străinătate.

B2. Cărți (manuale, monografii, tratate, îndrumare etc.) publicate în țară, la edituri recunoscute CNCSIS/CNCS.

B3. Cărți (manuale, monografii, tratate, îndrumare etc.) publicate la alte edituri sau pe plan local.

B4. Cărți (manuale, monografii, tratate, îndrumare etc.) publicate pe web.

B5. Capitole de cărți publicate în străinătate

B6. Capitole de cărți publicate în țară

C. Lucrări științifice publicate

C1. Lucrări științifice publicate în reviste cotate ISI

1. Tanase, Corneliu, Berta, Lavinia, Coman, Năstacă Alina, Roșca, Ioana, Man, Adrian, Toma, Felicia, Mocan, Andrei, **Jakab-Farkas, László**, Biró, Domokos and Mare, Anca: Investigation of In Vitro Antioxidant and Antibacterial Potential of Silver Nanoparticles Obtained by Biosynthesis Using Beech Bark Extract. *Antioxidants*. 8: 459.(2019).
2. Tanase, Corneliu, Berta, Lavinia, Coman, Năstacă Alina, Roșca, Ioana, Man, Adrian, Toma, Felicia, Mocan, Andrei, Nicolescu, Alexandru, **Jakab-Farkas, László**, Biró, Domokos and Mare, Anca: Antibacterial and Antioxidant Potential of Silver Nanoparticles Biosynthesized Using the Spruce Bark Extract. *Nanomaterials*. 9: 1541.(2019).
3. D. Feldiorean, D. Cristea, M. Tiorean, C. Croitoru, C. Gabor, **L. Jakab-Farkas**, L. Cunha, N.P. Barradas, E. Alves, V. Craciun, A. Marin, C. Moura, J. Leme, M. Socol, D. Craciun, M. Cosnita, and D. Munteanu: *Deposition temperature influence on the wear behaviour of carbon-based coatings deposited on hardened steel*. *Applied Surface Science*. (2019).
4. E. Domokos, **L. Jakab-Farkas**, B. Darkó, B. Bíró-Janka, Gy. Mara, Cs. Albert and A. Balog: "Increase in Artemisia annua Plant Biomass Artemisinin Content and Guaiacol Peroxidase Activity Using the Arbuscular Mycorrhizal Fungus Rhizophagus irregularis", *Frontiers in Plant Science*, vol. 9, pp. 1-9, 2018
5. **L. Jakab-Farkas**, D. Biro, G. Strnad and I. Vida-Simiti: "Preparation and characterization of (Ti, Al, Si)N coatings developed by d.c. reactive magnetron sputtering", *Journal of Optoelectronics and Advanced Materials*, vol. 15, pp. 696-702, 2013
6. D Biro, **L. Jakab-Farkas**, G Strnad, V Bolos and I Vida-Simiti: "Effect of nitrogen concentration on microstructure and microhardness of nanostructured (Ti, Al, Si) N coatings developed by dc reactive magnetron sputtering", *Journal of Optoelectronics and Advanced Materials*, vol. 13, pp. 859, 2011

C2. Lucrări științifice publicate în reviste indexate în baze de date internaționale (indicați și baza de date).

1. Domokos, Erzsébet, Csősz, Lilla Laura, Darkó, Béla and **Jakab-Farkas, László**: Vesicular Arbuscular Mycorrhiza Influences the Histo-Anatomic Characteristics of Vegetative Organs in *Artemisia annua*. 2: 5.(2019).
2. **L. Jakab-Farkas**, A. Kelemen, A.-Zs. Fekete, G. Strnad, S. Papp, I. Vida-Simiti and D. Biró: "Some remarks on the ternary TiAlSiN thin films developed under specific conditions", Acta technica napocensis- Series: Applied Mathematics, Mechanics, and Engineering, vol. 61, pp. 131-136, 2018 (inclusă în baza de date: Thomson Reuters Emerging Sources Citation Index, Index Copernicus, OCLC WorldCat)
3. A. Zs. Fekete and **L. Jakab-Farkas**: "Development of a pressure measuring unit based on a thermal conductivity gauge and a low cost embedded solution for mid-range vacuum applications", Papers On Technical Science, vol. 9, pp. 79-82, 2018 (inclusă în baza de date: de GRUYTER in progress)
4. L. Kenéz, N. Kutasi, E. Filep, **L. Jakab-Farkas** and L. Ferencz: "*Anodic Plasma Nitriding in Hollow Cathode (HCAPN)*", HTM Journal of Heat Treatment and Materials, vol. 73, pp. 96-105, 2018 (inclusă în baza de date: Thomson Reuters Emerging Sources Citation Index, SCOPUS, HANSER)
5. A. Zs. Fekete, A. Kelemen and **L. Jakab-Farkas**: "*Multilevel Distributed Embedded System for Control of the DC Magnetron Sputtering Process*", Acta Universitatis Sapientiae-Electrical and Mechanical Engineering, vol. 9, pp. 43, 2017 (inclusă în baza de date: Baidu Scholar, CNKI Scholar, CNPIEC, EBSCO Discovery Service, Google Scholar, J-Gate, KESLI-NDSL, Naviga, Primo Central, ProQuest, ReadCube, Summon (Serials Solutions/ProQuest), TDNet, WanFang Data, WorldCat (OCLC))
6. A. Kelemen, D. Biró, A.-Zs. Fekete, **L. Jakab-Farkas** and R.R. Madarász: "*Macroscopic Thin Film Deposition Model for the Two-Reactive-Gas Sputtering Process*", Acta Universitatis Sapientiae-Electrical and Mechanical Engineering, vol. 8, pp. 62, 2016 (inclusă în baza de date: Baidu Scholar, CNKI Scholar, CNPIEC, EBSCO Discovery Service, Google Scholar, J-Gate, KESLI-NDSL, Naviga, Primo Central, ProQuest, ReadCube, Summon (Serials Solutions/ProQuest), TDNet, WanFang Data, WorldCat (OCLC))
7. G. Strnad, **L. Jakab-Farkas** and D. Portan: "*Current-time dependence in self-organized TiO₂ layers synthesis by electrochemical anodization*", Academic Journal of Manufacturing Engineering, vol. 14, pp. 112-118, 2016 (inclusă în baza de date: SCOPUS, SCIENTIFIC.NET)
8. L. Kenéz, N. Kutasi, E. Filep, **L. Jakab-Farkas** and I.Á. Szöcs: "*Heat-Treatment of 16MnCr Steel in a Linear Non-Isotherm Plasma Reactor*", Acta Universitatis Sapientiae-Electrical and Mechanical Engineering, vol. 5, pp. 61-72, 2013 (inclusă în baza de date: Baidu Scholar, CNKI Scholar, CNPIEC, EBSCO Discovery Service, Google Scholar, J-Gate, KESLI-NDSL, Naviga, Primo Central, ProQuest, ReadCube, Summon (Serials Solutions/ProQuest), TDNet, WanFang Data, WorldCat (OCLC))
9. A.- Zs. Fekete, **L. Jakab-Farkas**, S. Papp and T.Cs. Balogh: "*Dynamic Pressure Control in Reactive Sputtering Process*", Acta Universitatis Sapientiae-Electrical and Mechanical Engineering, vol. 4, pp. 33-44, 2012 (inclusă în baza de date: Baidu Scholar, CNKI Scholar, CNPIEC, EBSCO Discovery Service, Google Scholar, J-Gate, KESLI-NDSL, Naviga, Primo Central, ProQuest, ReadCube, Summon (Serials Solutions/ProQuest), TDNet, WanFang Data, WorldCat (OCLC))
- 10.S. Papp, **L. Jakab-Farkas**, D. Biro and W. Szabo: "*Modeling and identification study of the variation of dynamic pressure in reactive sputtering process*", Scientific Bulletin of the Petru Maior University of Targu Mures, vol. 8 (XXV), pp. 58-61, 2011 (inclusă în baza de date: EBSCO, Index Copernicus, Ulrich's Periodicals Directory, Google Academic, Directory of Research Journals Indexing (DRJI), Directory of Open Access Journals (DOAJ), ProQuest

Engineering Journals, ProQuest Illustrata: Technology, ProQuest SciTech Journals, ProQuest Technology Journals)

- 11.K. György, A. Kelemen, S. Papp and **L. Jakab-Farkas**: "Theoretical Study of the Gradient Method to Find the Optimal Control for the Reactive Sputtering Process", Acta Universitatis Sapientiae-Electrical and Mechanical Engineering, vol. 3, pp. 2011 (inclusă în baza de date: Baidu Scholar, CNKI Scholar, CNPIEC, EBSCO Discovery Service, Google Scholar, J-Gate, KESLI-NDSL, Naviga, Primo Central, ProQuest, ReadCube, Summon (Serials Solutions/ProQuest), TDNet, WanFang Data, WorldCat (OCLC))
- 12.**L. Jakab-Farkas**, S. Papp, G. Strnad, Gy. Sáfrán, I. Vida-Simiti and D. Biro: "Preparation and study of nanostructured $TiAlSiN$ thin films", Scientific Bulletin of the Petru Maior University of Targu Mures, vol. 8 (XXV), pp. 200-205, 2011 (inclusă în baza de date: EBSCO, Index Copernicus, Ulrich's Periodicals Directory, Google Academic, Directory of Research Journals Indexing (DRJI), Directory of Open Access Journals (DOAJ), ProQuest Engineering Journals, ProQuest Illustrata: Technology, ProQuest SciTech Journals, ProQuest Technology Journals)
- 13.D. Biro, S. Papp and **L. Jakab-Farkas**: "Microstructural Modification of $(Ti_{1-x}Al_xSi_y)N$ Thin Film Coatings as a Function of Nitrogen Concentration", Acta Universitatis Sapientiae-Electrical and Mechanical Engineering, vol. 2, pp. 2010 (inclusă în baza de date: Baidu Scholar, CNKI Scholar, CNPIEC, EBSCO Discovery Service, Google Scholar, J-Gate, KESLI-NDSL, Naviga, Primo Central, ProQuest, ReadCube, Summon (Serials Solutions/ProQuest), TDNet, WanFang Data, WorldCat (OCLC))
- 14.**L. Jakab-Farkas**, S. Papp and D. Biró: "Effect of n concentration on microstructure evolution of the nanostructured (Al, Ti, Si) n coatings prepared by D C. Reactive magnetron sputtering", Scientific Bulletin of the Petru Maior University of Targu Mures, vol. 6, pp. 173, 2009 (inclusă în baza de date: EBSCO, Index Copernicus, Ulrich's Periodicals Directory, Google Academic, Directory of Research Journals Indexing (DRJI), Directory of Open Access Journals (DOAJ), ProQuest Engineering Journals, ProQuest Illustrata: Technology, ProQuest SciTech Journals, ProQuest Technology Journals)

C3. Lucrări științifice publicate în reviste din străinătate (altele decât cele menționate anterior).

C4. Lucrări științifice publicate în reviste din țară, recunoscute CNCSIS/CNCS (altele decât cele din baze de date internaționale).

C5. Lucrări științifice publicate în reviste, altele decât cele menționate anterior

C6. Lucrări științifice publicate în volumele manifestărilor științifice

1. Strnad, G., **Jakab-Farkas, L.**, Cazacu, R., Russu, O. and Petrovan, C.: Surface modification to develop hierarchical micro/nano topography on titanium based medical implants. IOP Conference Series: Materials Science and Engineering, IOP Publishing, 564: 012039.(2019)
2. G. Strnad, Z. German-Sallo, **L. Jakab-Farkas**, R. Cazacu and D. Portan: "Effect of potential ramp in the potentiodynamic stage of anodization on morphology of nanostructured TiO_2 developed on Ti_6Al_4V alloy", in Proceedings of Procedia Manufacturing, vol. 22, pp. 19-26, 2018
3. A.-Zs. Fekete and **L. Jakab-Farkas**: "Development of a pressure measuring unit based on a thermal conductivity gauge and a low cost embedded solution for mid-range vacuum applications", in Proceedings of the XXIIIth International Scientific Conference of Young Engineers, vol. 9, pp. 79-82, 2018

4. G. Strnad, D. Portan, **L. Jakab-Farkas**, C. Petrovan and O. Russu: "Morphology of Nanostructured TiO₂ Surfaces for Biomedical Implants Developed by Electrochemical Anodization", in Proceedings of Materials Science Forum, vol. 907, pp. 91-98, 2017
5. G. Strnad, Z. German-Sallo, **L. Jakab-Farkas**, C. Petrovan and D. Portan: "Influence of electrical parameters on morphology of nanostructured TiO₂ layers developed by electrochemical anodization", in Proceedings of MATEC Web Conf., vol. 112, pp. 1-6, 2017
6. G. Strnad, **L. Jakab-Farkas**, C. Petrovan and O.M. Russu: "Influence of Surface Preparation on Morphology of Self-organized Nanotubular Oxide Layers Developed on Ti6Al4V Alloy", in Proceedings of Procedia Engineering, vol. 181, pp. 242-248, 2017
7. G. Strnad, R. Cazacu, P. Chetan, Z. German-Sallo and **L. Jakab-Farkas**: "Optimized anodization setup for the growth of TiO₂ nanotubes on flat surfaces of titanium based materials", in Proceedings of MATEC Web Conf., vol. 137, pp. 1-6, 2017
8. **L. Jakab-Farkas**, A. Kelemen, A.-Zs. Fekete, G. Strnad, S. Papp, I. Vida-Simiti and D. Biró: "Some remarks on the ternary TiAlSiN thin films developed under specific conditions", in Proceedings of the 5th Internation Conference on Powder Metallurgy and Advanced Materials, pp. 131-136, 2017
9. A.-Zs. Fekete, **L. Jakab-Farkas** and S. Papp: "Development of an Embedded System for Processing Mass Spectrometry Measurements", in Proceedings of The XVIth International Conference of Technical Sciences, vol. pp. 61-64, 2016
10. A.-Zs. Fekete and **L. Jakab-Farkas**: "Development of an Embedded System for Accessing Mass Spectrometry Measurements through Ethernet Network", in Proceedings of The XXIth International Scientific Conference of Young Engineers, pp. 161-164, 2016
11. G. Strnad, C. Petrovan, O. Russu and **L. Jakab-Farkas**: "TiO₂ nanostructured surfaces for biomedical applications developed by electrochemical anodization", in Proceedings of IOP Conference Series: Materials Science and Engineering, vol. 161, pp. 1-8, 2016
12. G. Strnad, N. Chirila and **L. Jakab-Farkas**: "Effect of surface preparation and passivation treatment on surface topography of Ti6Al4V for dental implants", in Proceedings of Applied Mechanics and Materials, vol. 809, pp. 513-518, 2015
13. A.-Zs. Fekete and **L. Jakab-Farkas**: "Development of an Embedded Partial Pressure Measuring System for use in Reactive Sputtering System", in Proceedings of The XVth International Conference of Technical Sciences, vol. pp. 87-90, 2015
14. N. Kutasi, L. Kenéz, E. Filep, I. Szöllösi and **L. Jakab-Farkas**: "The Design of an Automated Plasma Diagnostic System – From Measurement to Signal Processing", in Proceedings of Macro 2015, vol. 1, pp. 49, 2015
15. D. Biro, **L. Jakab-Farkas**, A. Kelemen, S. Papp, M.F. Hasaneen, M. Menyhard, S. Gurban and P.B. Barna: "Effect of Oxygen Doping on the Structure of TiN Surface Coatings", in Proceedings of the 5th International Conference on Recent Achievements in Mechatronics, Automation, Computer Sciences and Robotics 2015, vol. 1, pp. 315-324, 2015
16. G. Strnad, **L. Jakab-Farkas**: "Improving the Accuracy of Low-load Vickers Microhardness Testing of Hard Thin Films", in Proceedings of Procedia Technology, vol. 12, pp. 289-294, 2014
17. G. Strnad, **L. Jakab-Farkas**, S. Papp, A.-Zs. Fekete, D. Biro and I. Vida-Simiti: "Optimization of reactive sputtering technology for hard coatings deposition", in Proceedings of Applied Mechanics and Materials, vol. 657, pp. 246-250, 2014
18. S. Papp, A. Kelemen, **L. Jakab-Farkas**, I. Vida-Simiti and D. Biro: "Multilayered nanocrystalline CrN/TiAlN/MoS 2 tribological thin film coatings: preparation and characterization", in Proceedings of IOP Conference Series: Materials Science and Engineering, vol. 47, pp. 12-16, 2013
19. S. Papp, **L. Jakab-Farkas** and D. Biro: "Langmuir probe measurements in a magnetron sputtering system", in Proceedings of The XVII-th International Scientific Conference of Young Engineers, pp. 267-270, 2012

- 20.S. Papp, K. György, A. Kelemen and **L. Jakab-Farkas**: "Applying the Extended and Unscented Kalman Filters for Nonlinear State Estimation", in Proceedings of the 6th International Conference INTER-ENG 2012, Interdisciplinarity in Engineering, vol. 1, pp. 233-239, 2012
- 21.S. Papp, **L. Jakab-Farkas**, D. Biro and W. Szabo: "Modeling and identification study of the variation of dynamic pressure in reactive sputtering process", in Proceedings of The International Conference Interdisciplinarity in Engineering INTER-ENG, vol. pp. 16, 2011
- 22.**L. Jakab-Farkas**, S. Papp, G. Strnad, Gy. Safran, I. Vida-Simiti and D. Biro: "Preparation and Study of Nanostructured TiAlSiN Thin Films", in Proceedings of the 5th International Conference Interdisciplinarity in Engineering INTER-ENG, pp. 200, 2011
- 23.D. Biro, S. Papp and **L. Jakab-Farkas**: "Microstructural Modification of (Ti_{1-x}Al_xSi_y)N Thin Film Coatings as a Function of Nitrogen Concentration", in Proceedings of the 2nd Conference on Recent Achievements in Mechatronics, Automation, Computer Sciences and Robotics (MACRo2010), pp. 199-207, 2010
- 24.**L. Jakab-Farkas**, S. Papp and D. Biró: "Effect of n concentration on microstructure evolution of the nanostructured (Al, Ti, Si) n coatings prepared by D C. Reactive magnetron sputtering", in Proceedings of the 4th edition of the Interdisciplinarity in Engineering International Conference pp. 261, 2009

D. Traduceri de cărți, capituloare de cărți, alte lucrări științifice

E. Editare, coordonare de volume

F. Brevete de invenții și alte titluri de proprietate

G. Contracte de cercetare (menționăți calitatea de director sau membru)

Nr. crt.	Denumirea Temei	Beneficiar	Perioada	Calitate
1.	Obținerea și cercetarea structurii microscopice prin procedurile TEM și XTEM a straturilor subțiri, rezistente la uzură	Institutul Programelor de Cercetare al Fundației Sapientia	2005-2006	Membru echipă
2.	Obținerea și investigarea microstructurală a straturilor subțiri tribologice de compozitie TiAlSiN	Institutul Programelor de Cercetare al Fundației Sapientia	2011	Membru echipă
3.	Influenta oxigenului asupra mecanismului de formare a structurii straturilor subtiri TiN	Academia din Ungaria 2010C00253CS	2013	Membru echipă
4.	Obținerea și caracterizarea prin microscopie electronică a straturilor TiOxNy realizate cu parametri predefiniți în vederea elucidării mecanismului de tranziție a texturii preferențiale.	Academia din Ungaria 37/6865	2014-2015	Membru echipă
5.	Tehnologie optimizată de anodizare electrochimică pentru dezvoltarea acoperirilor nanostructurate pe bază de TiO ₂ pe suprafetele complexe ale implanturilor biomedicale	Unitatea Executivă pentru Finanțarea Învățământului Superior PN-III-P2-2.1-PED-2016-0142	2017-2015	Membru echipă

H. creația artistică

H1 Participări la manifestații artistice internaționale

H2. Participări la manifestații artistice naționale

H3. Expoziții, filme, spectacole, concerte, discuri de autor, opere internaționale

H4. Expoziții, filme, spectacole, concerte, discuri de autor, opere naționale

H5. Produse cu drept de proprietate intelectuală în domeniul artistic

III. RECUNOAȘTEREA

I. Premii, distincții.

J. Citări

la C1.1

1. Burlacu, Ema, Tanase, Corneliu, Coman, Năstaca-Alina and Berta, Lavinia: A Review of Bark-Extract-Mediated Green Synthesis of Metallic Nanoparticles and Their Applications. *Molecules*. 24: 4354.(2019).
2. Hemlata, Meena, Prem Raj, Singh, Arvind Pratap and Tejavath, Kiran Kumar: Biosynthesis of Silver Nanoparticles Using Cucumis prophetarum Aqueous Leaf Extract and Their Antibacterial and Antiproliferative Activity Against Cancer Cell Lines. *ACS Omega*, American Chemical Society. 5: 5520-5528.(2020).
3. Ramos, Marina, Beltran, Ana, Fortunati, Elena, Peltzer, Mercedes, Cristofaro, Francesco, Visai, Livia, Valente, Artur J.M., Jiménez, Alfonso, Kenny, José María and Garrigós, María Carmen: Controlled Release of Thymol from Poly(Lactic Acid)-Based Silver Nanocomposite Films with Antibacterial and Antioxidant Activity. *Antioxidants*. 9: 395.(2020).
4. Barros, Lillian: Antioxidants Properties of Natural Products: A Themed Issue in Honor of Professor Isabel C.F.R. Ferreira. *Antioxidants*. 9: 286.(2020)
5. Fierascu, Irina, Fierascu, Ioana Catalina, Brazdis, Roxana Ioana, Baroi, Anda Maria, Fistos, Toma and Fierascu, Radu Claudiu: Phytosynthesized Metallic Nanoparticles—between Nanomedicine and Toxicology. A Brief Review of 2019's Findings. *Materials*. 13: 574.(2020).

la C1.2

1. Sánchez-López, Elena, Gomes, Daniela, Esteruelas, Gerard, Bonilla, Lorena, Lopez-Machado, Ana Laura, Galindo, Ruth, Cano, Amanda, Espina, Marta, Ettcheto, Miren, Camins, Antoni, Silva, Amélia M., Durazzo, Alessandra, Santini, Antonello, Garcia, Maria L. and Souto, Eliana B.: Metal-Based Nanoparticles as Antimicrobial Agents: An Overview. *Nanomaterials*. 10: 292.(2020).
2. Burlacu, Ema, Tanase, Corneliu, Coman, Năstaca-Alina and Berta, Lavinia: A Review of Bark-Extract-Mediated Green Synthesis of Metallic Nanoparticles and Their Applications. *Molecules*. 24: 4354.(2019).

la C1.3

1. Lebedev, Dmitry I.: Elemental Distribution of Gas-Thermal Coatings with W and Ta Modifiers. *Materials Science Forum*, Trans Tech Publications Ltd. 992: 627-632.(2020).
2. Sadh, P. K., Duhan, S. and Duhan, J. S.: Agro-industrial wastes and their utilization using solid state fermentation: a review. *Bioresources and Bioprocessing*. 5: 1-15.(2018).

la C1.4

1. Takács, Tünde, Cseresnyés, Imre, Kovács, Ramóna, Parádi, István, Kelemen, Bettina, Szili-Kovács, Tibor and Füzy, Anna: Symbiotic Effectivity of Dual and Tripartite Associations on Soybean (*Glycine max* L. Merr.) Cultivars Inoculated With *Bradyrhizobium japonicum* and AM Fungi. *Frontiers in Plant Science*. 9.(2018).
2. Kam, Melissa Yit Yee and Yap, Winnie Soo Ping: An oxidatively stressful situation: a case of *Artemisia annua* L. *Biotechnology and Genetic Engineering Reviews*, Taylor & Francis: 1-31.(2020).

3. Yee, Melissa Kam Yit and Ping, Winnie Yap Soo: Successes of artemisinin elicitation in low-artemisinin producing *Artemisia annua* cell cultures constrained by repression of biosynthetic genes. *bioRxiv*: 740167.(2019).
4. PÉTERFI, Orsolya, DOMOKOS, Erzsébet and PÉTERFI, Orsolya: MUTUALISTIC AND ENDOPHYTIC MICROORGANISMS OF ARTEMISIA ANNUA: DESCRIPTION, ROLE AND USE. *Acta Biologica Marisiensis*. (2018).
5. Dokāne, Kristīne: Rododendru un to sakņu endofītisko sēnu mijiedarbības anatomiski fizioloģiskie aspekti un izmantošana rododendru pavairošanā.(2019).
6. Ma, Yan-Qin, Li, Qi, Pu, Zuo-Qian, Lu, Meng-Xin, Yao, Jing-Wen, Feng, Jia-Chun and Xu, Zi-Qin: Constitutive expression of NtabSPL6-1 in tobacco and Arabidopsis could change the structure of leaves and promote the development of trichomes. *Journal of Plant Physiology*. 240: 152991.(2019).
7. Yang, Qiao, Zhao, Zhongqiu, Bai, Zhongke, Hou, Hong, Yuan, Ye, Guo, Anning and Li, Yufeng: Effects of mycorrhizae and water conditions on perennial ryegrass growth in rare earth tailings. *Rsc Advances, The Royal Society of Chemistry*. 9: 10881-10888.(2019).

Ia C1.5

1. Das, P., Anwar, S., Bajpai, S. and Anwar, S.: Structural and mechanical evolution of TiAlSiN nanocomposite coating under influence of Si₃N₄ power. *Surface & Coatings Technology*. 307: 676-682.(2016).
2. Ravi, N., Markandeya, R. and Joshi, S. V.: Effect of nitrogen pressure on mechanical properties of nc-TiAlN/ a-Si₃N₄ nanocomposite coatings deposited by cathodic arc PVD process. *Materials Today-Proceedings*. 3: 3002-3011.(2016).
3. Jokanovic, V., Holovic, B., Nenadovic, M., Petkoska, A. T., Mitric, M., Jokanovic, B. and Nasov, I.: Ultra-High and Near-Zero Refractive Indices of Magnetron Sputtered Thin-Film Metamaterials Based on Ti_xO_y. *Advances in Materials Science and Engineering*: 9.(2016).

Ia C1.6

1. Hasaneen, M. F., Biro, D., Szekely, L., Nemes-Incze, R. and Barna, P. B.: Substructure in the columnar crystals of the Ti_{0.45}O_{0.20}N_{0.35} oxynitride thin film. *Vacuum*. 86: 2105-2108.(2012).
2. Sobol, OV, Andreev, AA, Mygushchenko, RP, Stolbovoy, VA, Postelnyk, AA, Meylekhov, AA, Dolomanov, AV and Rebrova, Ye M: The effect of the substrate potential during deposition on the structure and properties of the binanolayer multiperiod composites (TiAlSi) N/MeN (Me-Zr, Nb, Cr, Mo). *Вопросы атомной науки и техники*. (2018).

Ia C2.4

1. Kovács, Dorina: Az aktív ernalő szerepének elemzése a plazmanitridálási eljárásban.(2019).
2. Kutasi, D. N.: Process Control with IIoT Capabilities of the Hollow Cathode Plasma Nitriding. *2019 20th International Carpathian Control Conference (ICCC)*: 1-5.(2019).
3. Kovács, Dorina, Quintana, Iban and Dobránszky, János: Effects of Different Variants of Plasma Nitriding on the Properties of the Nitrided Layer. *Journal of Materials Engineering and Performance*. 28: 5485-5493.(2019).
4. Kovács, Dorina, Dobránszky, János, Fodor, Tamás, Takáts, Viktor and Bonyár, Attila: Investigation of the ASPN process of low alloy steel by using Ni or Cr coated active screens. *Surface and Coatings Technology*. 394: 125638.(2020).
5. Kutasi, N. D. and Kenéz, L.: Modelling for Control the Hollow Cathode Anodic Plasma Nitriding. *2019 27th Mediterranean Conference on Control and Automation (MED)*: 262-266.(2019).

Ia C2.6

1. Madarász, R. R., Kelemen, A. and Fekete, A.: Plasma ignition and current control considerations for magnetron sputtering power supplies. *2018 International IEEE Conference and Workshop in Óbuda on Electrical and Power Engineering (CANDO-EPE)*: 27-32.(2018).

Ia C2.7

1. Strnad, G., Cazacu, R., Chetan, P., Florea, A. S. G. and Peti, F.: Effect of phosphate/fluoride electrolytes on mass and dimensional stability of anodization bath manufactured by FDM. *Modern Technologies in Manufacturing. N. Balc. Cedex A, E D P Sciences.* 137.(2017).

Ia C2.8

1. Kutasi, Nimrod Denes, Filep, Emod and Kenez, Lajos: Heat transport modelling and adaptive model predictive temperature control of the direct current plasma nitriding process performed in a linear non-isotherm plasma reactor. *Journal of Control Engineering and Applied Informatics.* 19: 52-60.(2017).
2. Emőd, Filep, Nimiró, Kutasi and Lajos, Kenéz: A Sapientia EMTE marosvásárhelyi karának plazmareaktora. *Acta Scientiarum Transylvanica*: 69).

Ia C2.10

1. Fekete, A-Zs. and Papp, S.: Modeling of Dynamic and Partial Pressures in Reactive Sputtering Processes. *Proceedings of The 6 th International Conference INTER-ENG 2012, Interdisciplinarity in Engineering. P. M. U. o. T. Mureş. Tîrgu Mureş.*(2012).

Ia C2.14

1. Biro, D., Hasaneen, M. P., Székely, L., Menyhard, M., Gurban, S., Pekker, P., Dodony, I. and Barna, P. B.: Texture change of TiN films due to anisotropic incorporation of oxygen. *Vacuum.* 103: 78-86.(2014).
2. Barna, P. B., Biro, D., Hasaneen, M. F., Székely, L., Menyhárd, M., Sulyok, A., Horváth, Z. E., Pekker, P., Dódony, I. and Radnóczki, G.: Cross sectional complex structure analysis is a key issue of thin film research: A case study on the preferential orientation crossover in TiN thin films. *Thin Solid Films.* 688: 137478.(2019).
3. Asgary, S., Ghoranneviss, M., Mahmoodi, A. and Zarein-dolab, S.: Evolution of Structural, Morphological, Mechanical and Optical properties of TiAlN coatings by Variation of N and Al amount. *Journal of Inorganic and Organometallic Polymers and Materials.* 28: 428-438.(2018).

Ia C6.4

1. Wu, Yang, Zhao, Fang Xia, Zhang, Zhen Zhong and Li, Ling Han: Study on the Preparation and Properties of Micro-Nano Structure on the Surface of 304 Stainless Steel by One-Step Anodizing. *Journal of Nano Research, Trans Tech Publications Ltd.* 60: 42-50.(2019).
2. Lopez-Jaime, K. A., Peña-Ballesteros, D. Y. and Sandoval-Amador, A.: Characterization of titanium oxide nanotubes growth through anodization in organic solvents. *Journal of Physics: Conference Series, IOP Publishing.* 1386: 012009.(2019).
3. Strnad, G., Cazacu, R., Chetan, P., Florea, A. S. G. and Peti, F.: Effect of phosphate/fluoride electrolytes on mass and dimensional stability of anodization bath manufactured by FDM. *Modern Technologies in Manufacturing. N. Balc. Cedex A, E D P Sciences.* 137.(2017).

Ia C6.5

1. Strnad, G., Cazacu, R., Chetan, P., Florea, A. S. G. and Peti, F.: Effect of phosphate/fluoride electrolytes on mass and dimensional stability of anodization bath manufactured by FDM. *Modern Technologies in Manufacturing. N. Balc. Cedex A, E D P Sciences.* 137.(2017).

Ia C6.6

1. Khaw, Juan Shong: Novel Approaches to Enhance Osseointegration Using Titanium-based Materials, *University of Manchester*. (2019).
2. Strnad, G., Cazacu, R., Chetan, P., Florea, A. S. G. and Peti, F.: Effect of phosphate/fluoride electrolytes on mass and dimensional stability of anodization bath manufactured by FDM. *Modern Technologies in Manufacturing. N. Balc. Cedex A, E D P Sciences.* 137.(2017).

Ia C6.11

1. Huynh, Vivian, Ngo, Ngan K. and Golden, Teresa D.: Surface Activation and Pretreatments for Biocompatible Metals and Alloys Used in Biomedical Applications. *International Journal of Biomaterials. V. K. Rangari, Hindawi.* 2019: 3806504.(2019).
2. Strnad, G., Cazacu, R., Chetan, P., Florea, A. S. G. and Peti, F.: Effect of phosphate/fluoride electrolytes on mass and dimensional stability of anodization bath manufactured by FDM. *Modern Technologies in Manufacturing. N. Balc. Cedex A, E D P Sciences.* 137.(2017).
3. Poddar, Shashank, Bit, Arindam and Sinha, Sudip Kumar: Influence of electrolytic parameters in the formation of TiO₂ nanotubes over Ti6Al4V. *Materials Today: Proceedings.*(2019).

Ia C6.12

1. Strnad, Gabriela, Chirila, Nicolae, Petrovan, Cecilia and Russu, Octav: Contact Angle Measurement on Medical Implant Titanium Based Biomaterials. *Procedia Technology.* 22: 946-953.(2016).

Ia C6.14

1. Kutasi, D. N.: Process Control with IIoT Capabilities of the Hollow Cathode Plasma Nitriding. *2019 20th International Carpathian Control Conference (ICCC)*: 1-5.(2019).
2. Kutasi, N. D. and Kenéz, L.: Modelling for Control the Hollow Cathode Anodic Plasma Nitriding. *2019 27th Mediterranean Conference on Control and Automation (MED)*: 262-266.(2019).

Ia C6.16

1. Bai, M, Maher, H, Pala, Z and Hussain, Tanvir: Microstructure and phase stability of suspension high velocity oxy-fuel sprayed yttria stabilised zirconia coatings from aqueous and ethanol based suspensions. *Journal of the European Ceramic Society.* 38: 1878-1887.(2018).
2. Strnad, Gabriela, Kovacs, Monika, Andras, Edina and Beresescu, Liana: Effect of Curing, Finishing and Polishing Techniques on Microhardness of Composite Restorative Materials. *Procedia Technology.* 19: 233-238.(2015).
3. Mareš, Vratislav, Kraus, Martin and Podeprelova, Adéla: The Effect of Applied Load on Hardness of Steels. *Materials Science Forum, Trans Tech Publications.* 891: 83-88.(2017).
4. Malau, Viktor and Arifudin, Latif: Vickers Microhardness Dependence Load and Determining of Tensile Strength of HQ 705 Steel from Microhardness Curves. *Applied Mechanics and Materials, Trans Tech Publ.* 842: 43-52.(2016).
5. Lemnifi, Ahmed: Influence of Excimer Laser Surface Meltingon Microstructure and CorrosionBehaviour of AA6061-T6 Alloy and SiCp/AA6061-T6 Composite, *The University of Manchester (United Kingdom).*(2017).
6. Abdalla, Rowida: Surface nanohardness of enamel after an erosive challenge; a literature review. *Surface Topography: Metrology and Properties, IOP Publishing.* 7: 043001.(2019).
7. Parmar, Ronaksinh: Characterization Of Fracture Toughness In Amorphous Diamond Like Carbon Thin Films And Coatings.(2015).
8. Blaško, Peter, Kupková, Miriam, Petrík, Jozef, Futaš, Peter and Vasilňaková, Andrea: The indentation size effect of sintered Fe/3.3 wt-%Cu + CnHm measured by Vickers scale. *Materials Science and Technology, Taylor & Francis.* 36: 403-408.(2020).
9. Ružbašan, Jakub: Vliv aplikovaného zatížení na hodnoty tvrdosti.(2017).

la C6.17

1. Zhou, Li Qin, Fan, Qi Hua, Simões, Raul and Neto, Victor: High-rate sputtering deposition of high- and low-refractive index films from conductive composites. *MRS Communications, Cambridge University Press*, 5: 327-332.(2015).
2. Madarász, R. R., Kelemen, A. and Fekete, A.: Plasma ignition and current control considerations for magnetron sputtering power supplies. *2018 International IEEE Conference and Workshop in Óbuda on Electrical and Power Engineering (CANDO-EPE)*: 27-32.(2018).

la C6.18

1. Zhang, Ergeng, Liu, Jingjing and Li, Wei: Microstructures, mechanical and tribological properties of NbN/MoS₂ nanomultilayered films deposited by reactive magnetron sputtering. *Vacuum*. 160: 205-209.(2019).
2. Gömze, László A., Kurovics, Emese and Gömze, Ludmila N.: Changing the rheo-mechanical models of light metal Ti and Ti-alloy powders under uniaxial compaction. *Journal of Physics: Conference Series, IOP Publishing*. 1045: 012001.(2018).

la C6.20

1. György, Katalin, Kelemen, András and Dávid, László: Unscented Kalman filters and Particle Filter methods for nonlinear state estimation. *Procedia Technology*. 12: 65-74.(2014).
2. Nguyen Van, Chi: State Estimation Based on Sigma Point Kalman Filter for Suspension System in Presence of Road Excitation Influenced by Velocity of the Car. *Journal of Control Science and Engineering. R. Matušů, Hindawi*. 2019: 6898756.(2019).
3. Moeti, Sekhonyana: Formal analysis of state estimation for nonlinear model predictive control, *University of Cape Town*.(2015).
4. Sekhonyana, Moeti P and Tsoeu, Mohohlo S: State Estimation for Nonlinear Model Predictive Control: EKF and UKF Approaches).

la C6.21

1. Fekete, A-Zs. and Papp, S.: Modeling of Dynamic and Partial Pressures in Reactive Sputtering Processes. *Proceedings of The 6 th International Conference INTER-ENG 2012, Interdisciplinarity in Engineering. P. M. U. o. T. Mureş, Tîrgu Mureş*.(2012).

K. Alte realizări semnificative.

Iunie 2007 - stagiu de pregătire în domeniul tehnologiei de vid, Gesellschaft für Schwerionenforschung mbH (GSI), Ultra High Vacuum Department. – 2 sapt.

Iunie 2008 - stagiu de pregătire în domeniul tehnologiei de vid, Gesellschaft für Schwerionenforschung mbH (GSI), Ultra High Vacuum Department. – 1 sapt.

Iunie – August 2008 - stagiu de pregătire în domeniul acceleratoarelor liniare de particule, Tokyo Institute of Technology, Research Laboratory for Nuclear Engineering. – 5 sapt.

Data,
2020.06.01

Semnătura,
