

Lista lucrărilor științifice reprezentative

In reviste WoS:

Ingineria suprafețelor și prelucrări cu laser:

1. Stanciu, E.M., Pascu, A., Croitoru, C., Roata, I.C., Cristea, D., Tiorean, M.H., Hulka, I., Petre, I.M., Mirza Rosca, J.C., Functional Surfaces via Laser Processing in Nickel Acetate Solution, *Materials* 2013, 16 (8), 3087. eISSN: 1996-1944, DOI: 10.3390/ma16083087, WOS:000976464500001, IF=3.4.
2. Aura-Cătălina Mocanu, Florin Miculescu, George E. Stan, Teddy Tite, Marian Miculescu, Mircea Horia Tiorean, Alexandru Pascu, Robert-Cătălin Ciocoiu, Tudor Mihai Butte, Lucian-Toma Ciocan, Development of ceramic coatings on titanium alloy substrate by laser cladding with pre-placed natural derived-slurry: Influence of hydroxyapatite ratio and beam power, *Ceramics International*, Volume 49, Issue 7, 2023, 10445-10454, <https://doi.org/10.1016/j.ceramint.2022.11.227>.
3. Moldovan, E.R.; Concheso Doria, C.; Ocaña, J.L.; Istrate, B.; Cimpoesu, N.; Baltes, L.S.; Stanciu, E.M.; Croitoru, C.; Pascu, A.; Munteanu, C.; Tiorean, M.H. Morphological Analysis of Laser Surface Texturing Effect on AISI 430 Stainless Steel. *Materials* 2022, 15, 4580, **Special Issue "State-of-the-Art Materials Science and Engineering Scientific Research-Romanian Technical Science Academy"**, DOI 10.3390/ma15134580, WOS:000824045100001, IF=3.748, (corresponding author).
4. Moldovan, E.R.; Concheso Doria, C.; Ocaña, J.L.; Baltes, L.S.; Stanciu, E.M.; Croitoru, C.; Pascu, A.; Roata, I.C.; Tiorean, M.H. Wettability and Surface Roughness Analysis of Laser Surface Texturing of AISI 430 Stainless Steel. *Materials* 2022, 15, 2955. DOI:10.3390/ma15082955, WOS:000787465000001, IF=3.748, (corresponding author).
5. Moldovan, E.R., Concheso Doria, C., Ocaña Moreno, J.L., Baltes, L.S., Stanciu, E.M.; Croitoru, C., Pascu, A., Tiorean; M.H., Geometry Characterization of AISI 430 Stainless Steel Microstructuring Using Laser, *Archives of Metallurgy and Materials*, 2022, volume: 67, issue: 2, pages: 645-652. DOI: <https://doi.org/10.24425/amm.2022.137801>, WOS:000813491700008, IF=0.767, (corresponding author).
6. Baltes, L.S., Patachia, S., Ekincioglu, O., Ozkul, H., Croitoru, C., Munteanu, C., Istrate, B., Tiorean, M.H., Polymer-Cement Composites Glazing by Concentrated Solar Energy, *Coatings*, 2001, volume: 11, issue: 3, article number 350, DOI: 10.3390/coatings11030350, WOS:000633596300001, IF=2.881, (corresponding author).
7. Samoila, C., Ursutiu, D., Tavkheldze, A., Jangidze, L., Taliashvili, Z., Skhiladze, G., Tiorean, M., Nanograting layers of Si, *Nanotechnology*, 2020, volume: 31, issue: 3, article number: 035301, DOI: 10.1088/1361-6528/ab4889, WOS:000501840300001, IF=3.551, (corresponding author).
8. Yan, G., Wu, Y., Cristea, D., Liu, L., Tiorean, M., Wang, Y., Lu, F., Wang, H., Yuan, Z., Munteanu, D., Zhao, D., Mechanical properties and wear behavior of multi-layer diamond films, deposited by hot-filament chemical vapor deposition, *Applied Surface Science*, 2019, vol. 494, pages 401-411, DOI: 10.1016/j.apsusc.2019.07.110, WOS:000487838900046, IF=6.182.
9. Pascu, A., Stanciu, E.M., Croitoru, C., Roata, I.C., Mirza Rosca, J., Cimpoesu, N., Tiorean, M.H., Bogatu, C., Pulsed Laser Cladding of NiCrBSiFeC Hardcoatings Using Single-Walled Carbon Nanotube Additives, *Journal of Nanomaterials*, 2019, article ID 2401295, <https://doi.org/10.1155/2019/2401295>, WOS:000487080800001, IF=1.980.
10. Yan, G.Y., Wu, Y.H., Cristea, D., Lu, F., Wang, Y.B., Zhao, D.H., Tiorean, M., Liu, L.S., Machining performance of hard-brittle materials by multi-layer micro-nano crystalline diamond coated tools, *Results in Physics*, 2019, Volume: 13, Article Number: 102303, DOI: 10.1016/j.rinp.2019.102303, WOS:000476618700191, IF=4.019.
11. Feldiorean, D., Cristea, D., Tiorean, M., Croitoru, C., Gabor, C., Jakab-Farkas, L., Cunha, L., Barradas, N.P., Alves, E., Craciun, V., Marin, A., Moura, C., Leme, J., Socol, M., Craciun, D., Cosnita, M., Munteanu, D.,

- Deposition temperature influence on the wear behaviour of carbon-based coatings deposited on hardened steel, *Applied Surface Science*, 2019, vol. 475, pages: 762–773, DOI: 10.1016/j.apsusc.2019.01.028, WOS:000458482100090, IF=6.182.
12. Baltes, L., Tiorean, M., Patachia, S., Ekincioglu, O., Ozkul, H.M., Photoactive glazed polymer-cement composite, *Applied Surface Science*, 2018, vol. 438, pages: 84-95, ISSN: 0169-4332, DOI: 10.1016/j.apsusc.2017.09.068, WOS:000425731200011, IF=6.182.
 13. Olah, A, Croitoru, C., Tiorean, M.H., Surface properties tuning of welding electrode-deposited hardfacings by laser heat treatment, *Applied Surface Science*, 2018, Volume: 438, pages: 41-50, ISSN: 0169-4332, DOI: 10.1016/j.apsusc.2017.10.090, WOS:000425731200006, IF=6.182.
 14. Pascu, A., Stanciu, E.M., Croitoru, C., Roata, I.C., Tiorean, M.H., Carbon Nanoparticle-Supported Pd Obtained by Solar Physical Vapor Deposition, *Advances in Materials Science and Engineering*, 2018, Article ID 4730192, 7 pages, 2018, ISSN: 1687-8434, DOI: 10.1155/2018/4730192, WOS:000426193300001, IF=1.271.
 15. Croitoru, C., Patachia, S., Papancea, A., Baltes, L., Tiorean, M., Glass fibres reinforced polyester composites degradation monitoring by surface analysis, *Applied Surface Science*, 2015, Volume: 358, pages: 518-524, Part: B, ISSN: 0169-4332, DOI: 10.1016/j.apsusc.2015.06.070, WOS:000366220500003, IF=6.182.
 16. Roman, I.B., Tiorean, M.H., Ocaña, J.L., Munteanu, C., Microstructural characterization and friction coefficient after the laser shock processing treatment on AISI 316 L stainless steel welds, *Journal of Optoelectronics and Advanced Materials*, 2013, Vol. 15, No. 7- 8, pages: 645-649, ISSN: 1454-4164, WOS:000323397900008, IF=0.631 (corresponding author).
 17. Oláh, A., Tiorean, M.H., Verő B., Research about the properties of metal coating layers, *Metalurgia International*, 2013, Special issue vol. XIX no. 2, ISSN 1582 – 2214, pages: 97-99, WOS:000315312100020, IF=0.134.
 18. Oláh, A., Tiorean, M.H., Verő, B., Munteanu, C., Barbinta, A., Influence of laser heat treatment on metal coating layers, *Journal of Optoelectronics and Advanced Materials*, 2013, Vol. 15, No. 1- 2, ISSN 1454-4164, pages: 114-120, WOS:000316431300025, IF=0.631 (corresponding author).
 19. Tiorean, M.H., Adherence of multilayer metal coating of tubes in vibrating field, *Metalurgia International*, 2011, vol. XVI, issue 3, ISSN 1582-2214, pages: 58-62, WOS:000287889300014, IF= 0.084.
 20. Olah, A. Tiorean, M.H., Research about the possibilities to increase the hardness of welded coating layers, *Journal of Optoelectronics and Advanced Materials*, 2011, Vol. 13, No. 7, ISSN 1454-4164, pages: 852-854, WOS:000294887100021, IF=0.631.

Caracterizarea materialelor:

21. Luca, M.A., Tiorean, M.H., Machedon Pisu, T., Rodriguez, J., Croitoru, C., The influence of concentrated solar energy flux on the structure and properties of stainless steel brazed joints, *Journal of thermal analysis and calorimetry*, 2020, DOI: 10.1007/s10973-019-09113-8, WOS:000500853500007, IF=2.731.
22. Baltes, L., Costiuc, L., Patachia, S., Tiorean, M., Differential scanning calorimetry-a powerful tool for the determination of morphological features of the recycled polypropylene, *Journal of Thermal Analysis and Calorimetry*, 2019, Vol: 138, Issue: 4, pages: 2399-2408, DOI: 10.1007/s10973-019-08679-7, WOS:000499703500004, IF=2.731.
23. Patachia, S., Croitoru, C., Baltes, L., Tiorean, M., Colors distribution in polymer wastes and color prediction of recycled polymers, *Environmental Engineering and Management Journal*, 2019, Volume: 18 Issue: 5, pages: 1039-1048, WOS:000473511200009, IF=1.186.
24. Baltes, L., Patachia, S., Tiorean, M., Ekincioglu, O., Ozkul, M.H., Photoactive polymer-cement composites for tannins removal from wastewaters, *Journal of Environmental Chemical Engineering*, 2018, Volume: 6, Issue: 4, pages: 4357-4367, ISSN: 2213-3437, DOI: 10.1016/j.jece.2018.06.039, WOS:000444046700062, IF=4.3.

25. Stanciu, E.M., Pascu, A., Croitoru, C., Tiorean, M., Mirza Rosca, J., Hulka, I., Solar radiation synthesis of functional carbonaceous materials using Al₂O₃/TiO₂-Cu-HA doped catalyst, *Applied Surface Science*, 2018, Volume: 438, pages: 33-40, ISSN: 0169-4332, DOI: 10.1016/j.apsusc.2017.10.092, WOS:000425731200005, IF=6.182.
26. Stanciu, E.M., Pascu, A., Tiorean, M.H., Roata, I.C., Voiculescu, I., Hulka, I., Croitoru, C., Dissimilar Laser Welding of AISI 321 and AISI 1010, *Tehnicki Vjesnik-Technical Gazette*, 2018, Volume: 25, Issue: 2, pages: 344-349, ISSN: 1330-3651, DOI: 10.17559/TV-20160722151049, WOS:000430936800006, IF=0.67.
27. Pascu, A., Stanciu, E.M., Voiculescu, I., Tiorean, M.H., Roata, I.C., Ocana J.L., Chemical and Mechanical Characterization of AISI 304 and AISI 1010 Laser Welding, *Materials and Manufacturing Processes*, 2016, Volume: 31, Issue: 3, pages: 311-318, ISSN: 1042-6914, DOI: 10.1080/10426914.2015.1025970, WOS:000365670400008, IF=3.046.
28. Stanciu, E.M., Pascu, A., Tiorean, M.H., Voiculescu, I., Roata, I.C., Croitoru, C., Hulka, I., Dual Coating Laser Cladding of NiCrBSi and Inconel 718, *Materials and Manufacturing Processes*, 2016, Volume: 31, Issue: 12, pages: 1556-1564, ISSN: 1042-6914, DOI: 10.1080/10426914.2015.1103866, WOS:000381388400003, IF=3.046.
29. Tiorean, M., Baltas, L., Luca, M., Banea, A., Measurements of dynamic Young modulus of AlSi10Mg alloy cast in vibrating field, *Journal of Optoelectronics and Advanced Materials*, 2015, Volume: 17, Issue: 11-12, pages: 1868-1873, ISSN: 1454-4164, WOS:000368046700038, IF=0.631 in 2018.
30. Costiuc, L., Tiorean, M., Baltas, L., Patachia, S., Experimental Investigation on the Heat of Combustion for Solid Plastic Waste Mixtures, *Environmental Engineering and Management Journal*, 2015, Volume: 14, Issue: 6, pages: 1295-1302, ISSN: 1582-9596, DOI: 10.30638/eemj.2015.140, WOS:000360500200007, IF=1.186.
31. Patachia, F.S.C., Catana Damian, L.N., Tiorean, M., Baltas, L., Microbial Safety of Plastic Materials Obtained from Wastes, *Environmental Engineering and Management Journal*, 2015, Volume: 14, Issue: 6, pages: 1303-1312, ISSN: 1582-9596, DOI: 10.30638/eemj.2015.141, WOS:000360500200008, IF=1.186.
32. Ursutiu, D., Samoila, C., Baltas, L.S., Tiorean, M.H., Vekas, L., Jinga, V., Labview in ultrasound plastic materials measurement, *Journal of Optoelectronics and Advanced Materials*, 2013, Vol. 15, No. 7- 8, pages: 750-754, WOS:000323397900027, IF=0.631.
33. Baltas, L.S., Tiorean, M.H., Patachia, S., Investigation on the friction coefficient of the composite materials obtained from plastics wastes and cellulosic fibres, *Journal of Optoelectronics and Advanced Materials*, 2013, Vol. 15, No. 7- 8, pages: 785-790, WOS:000323397900033, IF=0.631.
34. Rem, P., Di Maio, F., Hu, B., Houzeaux, G., Baltas, L., Tiorean, M., Magnetic fluid equipment for sorting of secondary polyolefins from waste, *Environmental Engineering and Management Journal*, 2013, Volume: 12, Issue: 5, pages: 951-958, ISSN: 1582-9596, WOS:000325283100014, IF=1.186 (corresponding author).
35. Moldovan, A., Patachia, S., Vasile, C., Darie, R., Manaila, E., Tiorean, M., Natural Fibres/Polyolefins Composites (I) UV and Electron Beam Irradiation, *Journal of Biobased Materials and Bioenergy*, 2013, 7, DOI: <http://dx.doi.org/10.1166/jbmb.2013.1273>, pages: 58-79, 2013, WOS:000317531600007, IF= 1.126.
36. Tiorean, M.H., Baltas, L.S., Rem, P.C., Foris, T. Feasibility study of the production of secondary polyolefins from the plastic wastes using magnetic density separation, *Metalurgia International*, 2013, Special issue vol. XVIII no. 5, ISSN 1582 – 2214, pages: 149-152, WOS:000315611900030, IF=0.134.
37. Roman, I.B., Tiorean, M.H., Ocaña, J.L., Effects of laser shock processing on 316L stainless steel welds, *Journal of Optoelectronics and Advanced Materials*, 2013, Volume: 15, Issue: 1-2, pages: 121-124, ISSN: 1454-4164, WOS:000316431300026, IF=0.631 (corresponding author).
38. Olah, A. Tiorean, M.H., Research about influence of nitrocarburizing on metal coating layers, *Metalurgia International*, 2011, vol. XVI, issue 5, ISSN 1582-2214, pages: 149-152, WOS:000289606200034, IF= 0.084.

39. Olah, A., Tiorean, M.H., Giacomelli, I., Research about the practical diffusion coefficient of nitrogen and carbon at nitrocarburizing, *Metalurgia International*, 2011, vol. XVI, issue 1, ISSN 1582-2214, pages: 74-76, WOS:000286450700014, IF= 0.084.
40. Machedon Pisu, T., Tiorean, M., Baltes, L., Aspects concerning the technical diagnosis of material and welding joints of air conditioning tower in cement industry, *Metalurgia International*, 2010, vol. XV, issue 5, ISSN 1582-2214, pages: 45-51, WOS:000275625500008, IF=0.154.
41. Toldy, A., Bodzay, B., Tiorean, M., Recycling of Mixed Polyolefin Wastes, *Environmental Engineering and Management Journal*, 2009, July/August, Vol.8, No.4, pages: 967-971, WOS:000269811500058, IF=1.186.
42. Tiorean, M., Baltes, L., Simulation of Damage in Elastic-plastic Materials Using the Fracture Mechanics Criteria, *Metalurgia International*, 2009, vol. XIV, special issue 2, ISSN 1582-2214, pages: 155-158, WOS:000265001400038, IF=0.173.
43. Baltes, L., Draghici, C., Manea, C., Ceausescu, D., Tiorean, M., Trends in Selective Collection of the Household Waste, *Environmental Engineering and Management Journal*, 2009, July/August, Vol.8, No. 4, pages: 985-991, WOS:000269811500061, IF=1.186.

Biomateriale:

44. Andrei, O.C.; Tănăsescu, L.A.; Tărlungeanu, I.D.; Dina, M.N.; Tiorean, M.H. Finite Element Comparative Analysis of von Mises Stress Levels in Unilateral Removable Partial Denture with and without Distal Implant. *Applied Sciences* 2022, 12, 5116. DOI 10.3390/app12105116, WOS:000801255500001, IF=2.838, (corresponding author).
45. Andrei, O.C., Tiorean, M.H., Burlibasa, M., Daguci, L., Scriciu, M., Farcasiu, C., Bisoc, A., Ionescu, I., Daguci, C., Tanasescu, L.A., Masticatory Area Influence on Stress in Saddle in Attachments Implant Supported Dentures, *Romanian Biotechnological Letters*, 2019, Volume: 24 Issue: 4, pages: 684-691, DOI: 10.25083/rbl/24.4/684.691, WOS:000482118200014, IF=0.765. <https://www.rombio.eu/docs/Andrei%20et%20al.pdf>.
46. Andrei, O.C., Daguci, C., Scriciu, M., Tiorean, M.H., Burlibasa, M., Tanasescu, L.A., Advantages of using acrylic and metal-composite crowns in mandibular single implant restorations – FEA study, *Revista de Materiale Plastice*, 2015, Volume: 52, Issue: 4, pages: 480-483, ISSN: 0025-5289, WOS:000368971900012, IF=1.517.
47. Martel Fuentes, O., Mirza Rosca, J. Rodriguez Galindo, E. Baltes, L.S., Tiorean, M.H., Electrochemical impedance spectroscopy characterization of passive film formed on Ti-Ta alloys, *Metalurgia International*, 2013, Special issue vol. XVIII no. 6, ISSN 1582 – 2214, pages: 18-22, WOS:000315835600004 IF=0.134.
48. Andrei, O.C., Dina, M.N., Mărgărit, R., Tiorean, M.H., 3D finite elements analysis of stresses in a 3 unit mandibular metal-ceramic bridge, *Metalurgia International*, 2013, vol. XVIII, no. 3, ISSN 1582-2214, pages: 132-137, WOS:000313930000030, IF=0.134.

In WoS proceedings:

Biomateriale:

1. Andrei, O.C., Dăguci, C., Tiorean, M.H., Farcaşiu, T.A., Farcaşiu, C., Tănăsescu L.A., Compared Stress Levels of Removable Partial Dentures with Attachments with and without Distal Implants - a Finite Element Analysis, *2015 E-Health and Bioengineering Conference (EHB)*, 2015, pp. 1-4, DOI: 10.1109/EHB.2015.7391503, WOS:000380397900156, <https://ieeexplore.ieee.org/document/7391503>.
2. Tănăsescu, L.A., Farcaşiu, A.T., Farcaşiu, C., Imre, M., Tiorean, M.H., Munteanu, D., Andrei, O.C., Influence of the implant prosthetic restorations components on the stress values and distribution in surrounding bone- a finite element analysis, *2015 E-Health and Bioengineering Conference (EHB)*,

2015, pp. 1-4, DOI: 10.1109/EHB.2015.7391497, WOS:000380397900150,
<https://ieeexplore.ieee.org/document/7391497>.

3. Mirza Rosca, J., Baltes, L.S., Tiorean, M.H., The effect of Mo and Al on the corrosion behavior of titanium and some of its alloys for biomedical applications, *Solid State Phenomena*, Vol. 216 (2014), Trans Tech Publications, Switzerland, doi:10.4028/www.scientific.net/SSP.216.11, p. 11-16, WOS:000347924100002.

Caracterizarea materialelor:

4. Stanciu, E.M., Pascu, A., Roata, I.C., Croitoru, C., Tiorean, M.H., Laser welding of dissimilar materials, *Materials Today-Proceedings*, Vol: 19, 2019, Pages: 1066-1072, Part: 3, ISSN: 2214-7853, DOI: 10.1016/j.matpr.2019.08.022, WOS:000496428200023.
5. Munteanu, D., Vaz, F., Tiorean, M.H., Croitoru, C., BraMat 2019 Special Issue: Editorial Preface, *Materials Today-Proceedings*, Vol: 19, Pages: 909-909, Part: 3, ISSN: 2214-7853, doi:10.1016/j.matpr.2019.07.443, WOS:000496428200001.

Ingineria suprafeţelor și prelucrări cu laser:

6. Olah, A., Tiorean, M.H., Research about relation between the microstructures and mechanical properties of metal coating layers, *Solid State Phenomena*, Vol. 216 (2014), Trans Tech Publications, Switzerland, doi:10.4028/www.scientific.net/SSP.216.169, p. 169-174, WOS:000347924100029.
7. Roman, I.B., Tiorean, M.H., Baltes, L.S., Mirza Rosca, J., The effect of laser shock processing on corrosion resistance of stainless steel AISI 316L, *Solid State Phenomena*, Vol. 216 (2014), Trans Tech Publications, Switzerland, doi:10.4028/www.scientific.net/SSP.216.210, p. 210-215, WOS:000347924100036.
8. Pascu, A., Stanciu, E.M., Croitoru, C., Roata, I.C., Tiorean, M.H., Pulsed Laser Cladding of Ni Based Powder, *International Conference on Innovative Research - ICIR EUROINVENT 2017*, Volume: 209, Article Number: 012058, ISSN: 1757-8981, doi:10.1088/1757-899X/209/1/012058, WOS:000423732100058.
9. Olah, A. Tiorean, M.H., Research about the wearing resistance of metal coating layers, *Solid State Phenomena*, Vol. 188 (2012), p. 428-432, DOI: 10.4028/www.scientific.net/SSP.188.428, ISSN: 1012-0394, WOS:000308047400069.

Simulare:

10. Baltes, L., Tiorean, M., Versatility and low cost modular tools, advances in manufacturing engineering, *Quality and Production Systems (Volume II), Proceedings of the 1st International Conference on Manufacturing Engineering, Quality and Production Systems (MEQAPS '09)*, ISBN: 978-960-474-122-9, Published by WSEAS Press, 2009, p. 291-295, WOS:000295540700003.
11. Tiorean, M., Baltes, L., Computing of Stress Intensity Factor using J-Integral Method with F.E.A., *Annals of DAAAM for 2009 & Proceedings of the 20th International DAAAM Symposium*, ISBN 978-3-901509-70-4, ISSN 1726-9679, pp 553, Editor B. Katalinic, Published by DAAAM International, Vienna, Austria, 2009, p. 1105-1106, WOS:000282335600553.
12. Baltes, L., Tiorean, M., Influence of the part shape on the polymer flow inside mold an overall strength, *Annals of DAAAM for 2009 & Proceedings of the 20th International DAAAM Symposium*, ISBN 978-3-901509-70-4, ISSN 1726-9679, pp 553, Editor B. Katalinic, Published by DAAAM International, Vienna, Austria, 2009, p. 1107-1108, WOS:000282335600554.
13. Tiorean, M., Baltes, L., Design of Valves Used in Reciprocating Compressors, *Recent Advances in Applied and Theoretical Mechanics, Proceedings of the 5th WSEAS International Conference on Applied and Theoretical Mechanics (MECHANICS '09)*, ISBN: 978-960-474-140-3, Published by WSEAS Press, 2009, p. 138-143, WOS:000276594500024.
14. Baltes, L., Tiorean, M., Eftimie, L., Advanced Design of High Pressure Die Casting Moulds, *Annals of DAAAM for 2008 & Proceedings of the 19th International DAAAM Symposium*, ISBN 978-3-901509-68-1, ISSN 1726-

- 9679, pp 696, Editor B. Katalinic, Published by DAAAM International, Vienna, Austria, 2008, p. 0065-0066, WOS:000262860100032.
15. Baltes, L., Tiorean, M., Eftimie, L., High Speed Machining with Internet Monitoring, *Annals of DAAAM for 2008 & Proceedings of the 19th International DAAAM Symposium*, ISBN 978-3-901509-68-1, ISSN 1726-9679, pp 696, Editor B. Katalinic, Published by DAAAM International, Vienna, Austria, 2008, p. 0067-0068, WOS:000262860100033.
 16. Eftimie, L., Tiorean, M., Baltes, L., CAD Modelling of Couplings to Extend Reliability, *Annals of DAAAM for 2008 & Proceedings of the 19th International DAAAM Symposium*, ISBN 978-3-901509-68-1, ISSN 1726-9679, pp 696, Editor B. Katalinic, Published by DAAAM International, Vienna, Austria, 2008, p. 0473-0474, WOS:000262860100236.
 17. Eftimie, L., Tiorean, M., Baltes, L., Mold Pattern Technological CAD Design of the Compressor Cross-Head (2008). *Annals of DAAAM for 2008 & Proceedings of the 19th International DAAAM Symposium*, ISBN 978-3-901509-68-1, ISSN 1726-9679, pp 696, Editor B. Katalinic, Published by DAAAM International, Vienna, Austria, 2008, p. 0475-0476, WOS:000262860100237.
 18. Tiorean, M., Baltes, L., Eftimie, L., Design of the Bridges Structures Using Mathcad, *Annals of DAAAM for 2008 & Proceedings of the 19th International DAAAM Symposium*, ISBN 978-3-901509-68-1, ISSN 1726-9679, pp 696, Editor B. Katalinic, Published by DAAAM International, Vienna, Austria, 2008, p. 1389-1390, WOS:000262860100694.
 19. Tiorean, M., Baltes, L., Eftimie, L., Optimisation of Structures Based on Reliability, *Annals of DAAAM for 2008 & Proceedings of the 19th International DAAAM Symposium*, ISBN 978-3-901509-68-1, ISSN 1726-9679, pp 696, Editor B. Katalinic, Published by DAAAM International, Vienna, Austria, 2008, p. 1391-1392, WOS:000262860100695.
 20. Baltes, L., Tiorean, M., Eftimie, L., Stress Concentration on Welded Joints' Cracks, *Annals of DAAAM for 2007 & Proceedings of the 18th International DAAAM Symposium*, ISBN 3-901509-58-5, ISSN 1726-9679, pp 382, Editor B. Katalinic, Published by DAAAM International, Vienna, Austria, 2007, p. 053-054, WOS:000252067400027.
 21. Eftimie, L., Tiorean, M., Baltes, L., Compensation of Compressor Rods Deformations Using Superbolts, *Annals of DAAAM for 2007 & Proceedings of the 18th International DAAAM Symposium*, ISBN 3-901509-58-5, ISSN 1726-9679, pp 382, Editor B. Katalinic, Published by DAAAM International, Vienna, Austria, 2007, p. 269-270, WOS:000252067400135.
 22. Tiorean, M., Eftimie, L., Baltes, L., C.F.D. in Reciprocating Compressor's Valves, *Annals of DAAAM for 2007 & Proceedings of the 18th International DAAAM Symposium*, ISBN 3-901509-58-5, ISSN 1726-9679, pp. 382, Editor B. Katalinic, Published by DAAAM International, Vienna, Austria, 2007, p. 757-758, WOS:000252067400379.
 23. Tofan, M., Tiorean, M., Baltes, L., Eftimie, L., Design of Geodesic Dome Structures, *Annals of DAAAM for 2007 & Proceedings of the 18th International DAAAM Symposium*, ISBN 3-901509-58-5, ISSN 1726-9679, pp 382, Editor B. Katalinic, Published by DAAAM International, Vienna, Austria, 2007, p. 763-764, WOS:000252067400382.

In reviste BDI:

Caracterizarea materialelor:

1. Costiuc, L, Baltes, L., Patachia, S., Tiorean, M., Lunguleasa, A., Influence of reprocessing by melt-mixing and thermo-formation of polyolefin fractions, separated from wastes, on their calorific power, *Bulgarian Chemical Communications*, Volume 50, Special Issue G, 2018, pp. 165-171, ISSN 0324-1130, http://www.bcc.bas.bg/BCC_Volumes/Volume_50_Special_G_2018/50G_PD_165-171.24.pdf.

2. Mon, I.C., Tiorean, M.H., Baltés, L.S., SEM and XRD Characterisation of Fusion Lines Obtained on Austempered Ductile Iron by Laser Beam Welding without Preheating, *Bulletin of the Transilvania University of Braşov*, Series I: Engineering Sciences, Vol. 13 (62) No. 2 – 2020, pp. 1-8, <https://doi.org/10.31926/but.ens.2020.13.62.1.7>.
3. Mon, I.C., Tiorean, M.H., Baltés, L.S., Optical Microscopy Characterisation of Fusion Lines Obtained on Austempered Ductile Iron by Laser Beam Welding Without Preheating, *Bulletin of the Transilvania University of Braşov*, Series I: Engineering Sciences, Vol. 13 (62) No. 1 – 2020, pp. 19-26, <https://doi.org/10.31926/but.ens.2020.13.62.1.3>.
4. Tiorean, M.H., Baltés, L.S., Banea, A.S., Mechanical Properties and Microstructure Aspects of AlSi10Mg Casting in Vibrating Field, *Materials Science Forum*, ISSN: 1662-9752, Vol. 907, 2017, pp 198-205.
5. Lazar, A., Croitoru, C., Tiorean, M., Baltés, L., Thermal and Thermorheologic Characterization of Different Polyolefin Waste Fractions, *Materials Science Forum*, ISSN: 1662-9752, Vol. 907, 2017, pp 74-79.
6. Moldovan, E., Tiorean M.H., E.M. Stanciu, Overview of Joining Dissimilar Materials: Metals and Polymers, *Bulletin of the Transilvania University of Braşov*, Series 1, Vol. 10 (59) No. 1 - 2017, pp. 39-46.
7. Stanciu, E.M., Pascu, A., Roata, I.C., Tiorean, M.H., Dissimilar laser welding of carbon steel and stainless steel, *Tehnomus Journal*, No.22, 2015, ISSN 1224-029X, pp. 57-60.
8. Mon, I.C., Tiorean, M.H., Cicala, E., Pilloz, M., Tomashchuk, I., Sallamand, P., Characterization of Fusion Lines Obtained with Laser Welding on Ductile Iron Plates, *Solid State Phenomena*, ISSN: 1662-9779, Vol. 254, 2016, pp 33-42.
9. Croitoru, C., Giubega, A., Patachia, S., Baltés, L., Pascu, A., Roata. I., Tiorean, M., State of the Art in Calcite and Polyolefins Recycling, *Bulletin of the Transilvania University of Braşov*, Series I, Vol. 9 (58) No. 1 – 2016, p. 35-40.
10. Mon, I.C., Tiorean, M.H., Nofal, A., Research on GTAW/SMAW Weldability of ADI/DI Using Electrodes ENi-CI and ENiFe-CI-A, *Advanced Materials Research*, Vol. 1128 (2015), Trans Tech Publications, Switzerland, ISSN: 1662-8985, doi:10.4028/www.scientific.net/AMR.1128.242, p. 242-253.
11. Tiorean, M.H., Baltés, L.S., Banea, A., Influence of the vibrations on AlSi10Mg casting alloy structure, *Advanced Materials Research*, Vol. 1114 (2015), Trans Tech Publications, Switzerland, doi:10.4028/www.scientific.net/AMR.1114.166, p. 166-171.
12. Mon, I.C., Tiorean, M.H., A Review on Tests of Austempered Ductile Iron Welding, *Bulletin of the Transilvania University of Braşov*, Series I, Vol. 8 (57) No. 1 – 2015, p. 59-66.
13. Tiorean, M.H., Munteanu, D., The 8th Edition of International Conference on Materials Science & Engineering, BRAMAT 2013, *Bulletin of the Transilvania University of Brasov*, vol. 6 (55) No.1 – 2013, series I - Engineering Sciences, ISSN 2065-2119 (Print), ISSN 2065-2127 (CD-ROM), 2013, p. 75-76.
14. Banea, A.S., Tiorean, M.H., Influence of vibrations on mechanical properties of AlSi10Mg cast, *Metalurgia*, no. 8, 2013, p. 23-29.
15. Moldovan, A., Patachia, S., Buican, R., Tiorean, M.H., Characterization of polyolefins wastes by FTIR spectroscopy, *Bulletin of the Transilvania University of Brasov*, Series I: Engineering Sciences, Vol. 5 (54) No. 2 – 2012, p. 65-72.
16. Patachia, S., Moldovan, A., Tiorean, M., Baltés, L., Composition Determination of the Romanian Municipal Plastics Wastes, *The 26th International Conference on Solid Waste Technology and Management, March 27 – 30, 2011, Philadelphia, U.S.A., Journal of Solid Waste Technology and Management*, ISSN 1091-8043, pag 940-951.
17. Costiuc, L., Patachia, S., Baltés, L., Tiorean, M., Investigation on Energy Density of Plastic Waste Materials, *The 26th International Conference on Solid Waste Technology and Management, March 27 – 30, 2011, Philadelphia, U.S.A., Journal of Solid Waste Technology and Management*, ISSN 1091-8043, pag 930-939.
18. Banea, A.S., Roman, I.B., Galea, A., Tiorean, M.H., Study on the influence of mechanical vibrations alloys properties, *International conference AFASES 2011*, Brasov, 26-28 May 2011, p. 840-844.

19. Patachia, S., Moldovan, A., Buican, R., Vasile, C., Darie, R., Tiorean, M., Composite Materials based on Polyolefin Wastes, *Proceedings of the 14th European Conference on Composite Materials*, 7-10 June 2010, Budapest, Hungary, ISBN: 978-963-313-008-7, p. 1-13.
20. Vajna, B., Palásti, K., Bodzay, B., Toldy, A., Patachia, S., Buican, R., Croitoru, C., Tiorean, M., Complex analysis of car shredder light fraction, *The Open Waste Management Journal*, 2010, 3, ISSN 1876-4002, p. 46-55.
21. Costiuc, L., Popa, V., Serban, A., Lunguleasa, A., Tiorean, M.H., Investigation on heat of combustion of waste materials, *Proceedings of the International Conference on Urban Sustainability, Cultural Sustainability, Green Development Green Structures and Clean Cars*, Malta, September 15-17, 2010, Published by WSEAS Press, ISSN: 1792-4781, ISBN: 978-960-474-227-1, p. 165-168.
22. Tiorean, M., Stefanescu, D.M., The 6th Edition of International Conference on Materials Science & Engineering, BRAMAT 2009, *Bulletin of the Transilvania University of Brasov, Vol. 2(51), Series I, 2009*, ISSN 2065-2119, Published by Transilvania University Press Brasov, Romania, 2009, p. 385-386.

Ingineria suprafetelor și prelucrări cu laser:

23. Stanciu, E.M., Pascu, A., Roată, I.C., Iatan, C., Moldovan, E.R., Tiorean, M.H., Millisecond pulsed laser welding of AISI 316 stainless steel, *IOP Conf. Series: Materials Science and Engineering*, 1251, (2022) 012012, doi:10.1088/1757-899X/1251/1/012012.
24. Feldiorean, D.I., Tiorean, M.H., Studies on the Carburizing Process of AISI 8620 Steel Obtained by MIM Technology, *Recent J.* (2018), Vol. 19 (2018), No. 2 (55), pp. 70-76, ISSN 1582-0246, <https://doi.org/10.31926/RECENT.2018.55.070.>, <http://www.recentonline.ro/055/Feldiorean-Recent55.pdf>.
25. Feldiorean, D.I., Cristea, D., Jakab-Farkas, L., Tiorean, M.H., Surface Characterization of DLC Layers PVD Coated on AISI 52100 Steel Substrate, *IOP Conf. Series: Materials Science and Engineering*, 416 (2018), 7th International Conference on Advanced Materials and Structures - AMS 2018, ISSN:1757899X, doi:10.1088/1757-899X/416/1/012014, <https://iopscience.iop.org/article/10.1088/1757-899X/416/1/012014/pdf>.
26. Pascu, A., Stanciu, E.M., Roata, I.C., Tiorean, M.H., Influence of the laser power on the geometry of laser cladding with Ni base powder, *Tehnomus Journal*, No.22, 2015, ISSN 1224-029X, pp. 204-207.
27. Pascu, A., Stanciu, E.M., Roata, I.C., Croitoru, C., Baltas, L.S., Tiorean, M.H., Parameters and behaviour of NiCrFeSiB laser cladding in overlapped geometry, *Bulletin of the Transilvania University of Braşov, Series 1, Vol. 9 (58) No. 2 – 2016*, pp. 9-16.
28. Pascu, A., Hulka, I., Tiorean, M.H., Croitoru, C., Stanciu, E.M., Roata, I.C., A Comparison of Flame Coating and Laser Cladding Using Ni Based Powders, *Solid State Phenomena*, ISSN: 1662-9779, Vol. 254, 2016, pp 77-82.
29. Feldiorean, D.I., Tiorean, M.H., Overview on DLC Layers Used to Increase the Tribological Properties, *Bulletin of the Transilvania University of Braşov, Series I, Vol. 8 (57) No. 1 – 2015*, p. 43-50.
30. Roman, I.B., Banea, A.S., Tiorean, M.H., A Review on Mechanical Properties of Metallic Materials after Laser Shock Processing, *Bulletin of the Transilvania University of Brasov, Vol. 4 (53) No. 2 - 2011* ISSN 2065-2119 (Print), ISSN 2065-2127 (CD-ROM), Published by Transilvania University Press Brasov, Romania, 2011, p. 81-86.

Biomateriale:

31. Mirza Rosca, J.C., Florido Suárez, N.R., Baltas, L., Tiorean, M., Biomechanical properties of animals bones and the influence of oncologic drug on pig femur, *IOP Conf. Series: Materials Science and Engineering*, 1262 (2022) 012025, doi:10.1088/1757-899X/1262/1/012025.

32. Bălţatu, M.S., Vizureanu, P., Tierean, M.H., Minciună, M.G., Achiţei, D.C., Ti-Mo Alloys Used in Medical Applications, *Advanced Materials Research*, Vol. 1128 (2015), Trans Tech Publications, Switzerland, doi:10.4028/www.scientific.net/AMR.1128.105, p. 105-111.
33. Andrei, O.C., Tănăsescu, L.A, Mărgărit, R. Tierean, M.H., Stress study of removable partial denture with attachments using finite element analysis, *Applied Mechanics and Materials*, Vol. 659 (2014), Trans Tech Publications, Switzerland, doi:10.4028/www.scientific.net/AMM.658.389, p. 389-394.
34. Garcia Doreste, M.E., Gonzalez Martin, D., Tierean, M.H., Mirza Rosca, J.C., Preliminary Studies for In Vivo Application of Surface Treated Ti6Al7Nb Prostheses, *Bulletin of the Transilvania University of Brasov, Vol. 2(51), Series I*, 2009, ISSN 2065-2119, Published by Transilvania University Press Brasov, Romania, 2009, p. 123-130.
35. Tanasescu, L.A., Imre, M., Daguci, C., Tierean, M.H., Munteanu, D., Andrei, O.C., Influence of the Implant Prosthetic Restorations Components on the Stress Values and Distribution in Surrounding Bone - Finite Element Analysis Study, *Journal of Gerontology & Geriatric Research*, DOI:10.4172/2167-7182.1000242, 2015, Volume 4, Issue 5, p. 1-5

Simulare:

36. Tierean, M., Evaluation of stresses in the air conditioning tower in cement industry, *Recent*, vol. 12 (2011), no. 1 (31), ISSN 1582-0246, Published by Transilvania University Press Brasov, Romania, 2011, p. 73-76.
37. Tierean, M., Baltés, L., Santana Lopez, A., Modeling of Crack Growth in Elastic-Plastic Materials, *Bulletin of the Transilvania University of Brasov*, Vol. 1(50), Series I, 2008, ISSN 2065-2127, p. 279-282.
38. Baltés, L., Tierean, M., Samota, I., Mirza Rosca, J., Analysis of the Stresses in the Femoral Bone, Premise for the Hip Prosthesis Dimensioning, *Bulletin of the Transilvania University of Brasov*, Vol. 1(50), Series I, 2008, ISSN 2065-2127, p. 191-196.
39. Tierean, M., Baltés, L., Thermal behavior of valve rings during operation in compressors, *Bulletin of the Transilvania University of Brasov*, Vol. 12(47) - series A, 2005, ISSN 1223-9631, p. 297-302.

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