

A. Articole științifice publicate în extenso în reviste cotate ISI cu factor de impact:

1. V. Tiron, I.-L. Velicu (corresponding author), D. Cristea, N. Lupu, G. Stoian, D. Munteanu, *Influence of ion-to-neutral flux ratio on the mechanical and tribological properties of TiN coatings deposited by HiPIMS*, [Surface & Coatings Technology](#) Technology (2017) *in press* (DOI: 10.1016/j.surfcoat.2017.11.048).
2. S. Brezinsek, J.W. Coenen, T. Schwarz-Selinger, K. Schmid, A. Kirschner et al. (168 authors), *Plasma-Wall Interaction Studies within the EUROfusion Consortium: progress on Plasma-Facing Components development and qualification*, [Nuclear Fusion](#) **57** (2017) 116041.
3. P. Dinca, C. Porosnicu, B. Butoi, I. Jecu, V. Tiron, O. G. Pompilian, I. Burducea, C. P. Lungu, I.-L. Velicu, *Beryllium-Tungsten Study on Mixed Layers obtained by m-HiPIMS / DCMS Techniques in a Deuterium and Nitrogen Reactive Gas Mixture*, [Surface & Coatings Technology](#) **321** (2017) 397-402.
4. V. Tiron, I.-L. Velicu, C. Porosnicu, I. Burducea, P. Dinca, P. Malinsky, *Tungsten Nitride Coatings Obtained by HiPIMS as Plasma Facing Materials for Fusion Applications*, [Applied Surface Science](#) **416** (2017) 878-884.
5. I.-L. Velicu, V. Tiron, C. Porosnicu, I. Burducea, G. Popa, D. Munteanu, *Enhanced properties of Tungsten thin films deposited with a novel HiPIMS approach*, [Applied Surface Science](#) **424** (2017) 397-406.
6. V. Tiron, I.-L. Velicu, D. Stanescu, H. Magnan, L. Sirghi, *High Visible Light Photocatalytic Activity of Nitrogen-Doped ZnO Thin Films Deposited by HiPIMS*, [Surface & Coatings Technology](#) **324** (2017) 594-600.
7. I.-L. Velicu, V. Tiron, B.-G. Rusu, G. Popa, *Copper thin films deposited under different power delivery modes and magnetron configurations: A comparative study*, [Surface & Coatings Technology](#) **327** (2017) 192-199.
8. I.-L. Velicu, I. Mihaila, G. Popa, *Operating the HIPIMS discharge with ultra-short pulses: a solution to overcome the deposition rate limitation*, [Romanian Reports in Physics](#) **69** (2017).
9. V. Tiron, I.-L. Velicu, M. Dobromir, A. Demeter, F. Samoilă, C. Ursu, L. Sirghi, *Reactive multi-pulse HiPIMS deposition of oxygen-deficient TiO_x thin films*, [Thin Solid Films](#) **603** (2016) 255-261.
10. V. Tiron, I.-L. Velicu (corresponding author), O. Vasilovici and G. Popa, *Optimization of deposition rate in HiPIMS by controlling the peak target current*, [Journal of Physics D: Applied Physics](#) **48** (2015) 495204.
11. L. Budeanu, M. Neagu, N. Lupu, H. Chiriac, I.-L. Velicu, *Fe_{73.5}Cu₁Nb₃Si_{15.5}B₇ powders prepared by mechanical grinding: structural and magnetic properties*, [Optoelectronics and Advanced Materials - Rapid Communications](#) **9** (2015) 1164-1166.
12. I.-L. Velicu, M. Neagu, L. Costinescu, V. Tiron, D. Munteanu, *Nanomechanical characterization of amorphous and nanocrystalline FeCuNbSiB thin films*, [Applied Surface Science](#) **352** (2015) 5-9.
13. V. Tiron, I.-L. Velicu, F. Ghiorghiu, G. Popa, *The effect of the additional magnetic field and gas pressure on the sheath region of a high power impulse magnetron sputtering discharge* [Romanian Reports in Physics](#) (2015).
14. L. Costinescu, C. Cojocariu, M. Dudita, L. Parv, I.-L. Velicu, D. Munteanu, *The effect of Si incorporation on the mechanical properties and corrosion behaviour of a-C:H and a-C:H:Si coatings*, [Journal of Optoelectronics and Advanced Materials](#) **17** (2015) 241-247.
15. I.-L. Velicu, M. Neagu, V. Tiron, *Fe_{73.5}Cu₁Nb₃Si_{15.5}B₇ Thin Films Deposited by HiPIMS: Magnetic and Magnetostrictive Behaviour*, [Journal of Superconductivity and Novel Magnetism](#) **28** (2015) 1035-1039.
16. I.-L. Velicu, V. Tiron, *On the transport phenomena in highly ionized pulsed plasma during FeCuNbSiB thin film deposition process*, [Digest of Nanomaterials and Biostructures](#) **9** (2014) 1513-1522.
17. I.-L. Velicu, V. Tiron, G. Popa, *Dynamics of the fast - HiPIMS discharge during FINEMET - type films deposition*, [Surface & Coatings Technology](#), **250** (2014) 57-64.
18. I.-L. Velicu, M. Neagu, L. Costinescu, D. Munteanu, E. P. Koumoulos, C. A. Charitidis, *Nanomechanical Properties of amorphous FeCuNbSiB Thin Films Deposited by HiPIMS*, [Sensors Letters](#) **11** (2013) 1925-1930.
19. I.-L. Velicu, M. Kowalczyk, M. Neagu, V. Tiron, H. Chiriac, J. Ferenc, *FINEMET-type thin films deposited by HiPIMS: influence of growth and annealing conditions on the magnetic behaviour*, [Materials Science & Engineering B](#) **178** (2013) 1329-1333.
20. I.-L. Velicu, M. Neagu, M. Dobromir, D. Luca, N. Lupu, H. Chiriac, F. Borza, *Structural, Magnetic and Magnetoelastic Behaviour of FeCuNbSiB Thin Films*, [Sensor Letters](#) **10** (2012) 902-905.
21. I.-L. Velicu, M. Neagu, H. Chiriac, V. Tiron, M. Dobromir, *Structural and Magnetic Properties of FeCuNbSiB Thin Films Deposited by HiPIMS*, [IEEE Transactions on Magnetism](#) **48** (2012) 1336-1339.
22. M. Dobromir, M. Neagu, H. Chiriac, C. Agheorghiesei, A. Bulai, I.-L. Velicu, F. Borza, *Ellipsometric investigation of Fe-based amorphous thin films*, [Optoelectronics and Advanced Materials - Rapid Communications](#) **4** (2010) 1667-1669.
23. M. Neagu, M. Lozovan, M. Dobromir, I.-L. Velicu, C. Hison, S. Stratulat, *Permalloy Thin Films Obtained by Pulsed Laser Deposition: Magnetic and Galvanomagnetic Behaviour*, [Journal of Optoelectronics and Advanced Materials](#) **10** (2008) 632-634.

B. Articole științifice publicate în *extenso* în reviste cotate ISI fără factor de impact:

1. **I.-L. Velicu (corresponding author)**, V. Tiron, I. Mihaila, C. Costin, *Pulsed magnetron sputtering: the role of the applied power on W coatings properties*, Recent Advances in Technology Research and Education. INTER-ACADEMIA 2017. Advances in Intelligent Systems and Computing, vol 660. Springer, Cham, 183-190.

C. Articole științifice publicate în *extenso* în alte reviste:

1. **I.-L. Velicu (corresponding author)**, M. Neagu, V. Tiron, *Magnetoimpedance effect in single-layered and sandwiched FeCuNbSiB thin films in frequencies up to 500 MHz*, Journal of Advanced Research in Physics **7(1)** (2017) 011701.
2. D. Mihăilescu, C. Munteanu, C. Aniculăesei, **I.-L. Velicu**, *Backscattering Coefficients For 8-32 KeV Electrons: A Monte Carlo Investigation*, Annals of West University, Timișoara, Physics Series **25** (2008).

D. Articole științifice publicate în *extenso* în volumele unor conferințe internaționale de specialitate:

1. M. Dobromir, **I.-L. Velicu**, M. Neagu, H. Chiriac, *FeCuNbSiB Thin Films Deposited by Pulsed Laser Deposition: Structural and Magnetic Properties*, Proceedings of International Conference Nanomaterials: Application & Properties **2** (2013) 01NTF09(3).
2. V. Tiron, C. Vitelaru, **I.-L. Velicu**, F. Ghiorghiu, G. Popa, *On transport phenomena in high power pulse unbalanced magnetron discharge with additional external magnetic field*, Proceedings of The XXXI International Conference on Phenomena in Ionized Gases – ICPIG (2013).