Europass Curriculum Vitae

Personal information

First name(s) / Surname(s)	**Vasile TIRON**
Address(es)	Research Center on Advanced Materials and Technologies (RAMTECH), Department of Exact and Natural Science, Institute of Interdisciplinary Research, Alexandru Ioan Cuza University of Iasi Iasi-700506, Romania
Telephone(s)	+40232201187 Mobile: +40740368558
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E-mail	vasile.tiron@uaic.ro
Nationality	Romanian
Date of birth	02 January 1977
Gender	male

Desired employment / Occupational field **Alexandru Ioan Cuza University of Iasi / researcher**

Work experience

Dates	September 2025 – to date
Occupation or position held	Senior research scientist first degree
Name and address of employer	Alexandru Ioan Cuza University of Iasi, 11 Carol I Blvd., 700506, Iasi, Romania
Type of business or sector	research
Dates	May 2020 – September 2025
Occupation or position held	Senior research scientist second degree
Name and address of employer	Alexandru Ioan Cuza University of Iasi, 11 Carol I Blvd., 700506, Iasi, Romania
Type of business or sector	research
Dates	July 2010 –June 2013
Occupation or position held	postdoctoral researcher
Name and address of employer	Alexandru Ioan Cuza University of Iasi, 11 Carol I Blvd., 700506, Iasi, Romania
Type of business or sector	research
Dates	February 2009 – Apr 2020
Occupation or position held	Senior research scientist third degree
Name and address of employer	Alexandru Ioan Cuza University of Iasi, 11 Carol I Blvd., 700506, Iasi, Romania
Type of business or sector	research
Dates	February 2007 -Nov 2009
Occupation or position held	research assistant
Name and address of employer	Alexandru Ioan Cuza University of Iasi, 11 Carol I Blvd., 700506, Iasi, Romania
Type of business or sector	research

Education and training

Title of qualification awarded	2023 - Habilitation in Physics, „Pulsed plasma applications in material science and space propulsion” 2007 - PhD in Physics. The PhD thesis title: "Contributions to the study of hysteresis phenomenon in the reactive magnetron discharge plasma". 2002 - Master of Science in Plasma Physics , Faculty of Physics, ‘Al. I. Cuza’ University, Iasi, ROMANIA The theses title: “ Study of the micro discharge at atmospheric pressure” 2000 - Graduated the Faculty of Physics, ‘Al. I. Cuza’ University; Iasi, ROMANIA Degree: Bachelor of Science, with thesis entitled: “Electrical and optical diagnosis methods of positive column plasma”
Name and type of organisation providing education and training	Faculty of Physics, Alexandru Ioan Cuza University of Iasi, 11 Carol I Blvd., 700506, Iasi, Romania

Personal skills and competences

Mother tongue(s)	**Romanian**
Other language(s)	**English**
Organisational skills and competences	Member of the local organizing committee: ● *International Conference on Plasma Physics and Applications – CPPA,* Editions: 2003, 2005, 2010, 2019 and 2022, Iasi, Romania.● 5th, 10th and 16th *International Conference on Global Research and Education - Inter-Academia***,** Iasi, Romania ● *XXXII International Conference on Phenomena in Ionized Gases –ICPIG,* 2015, Iasi, Romania ● Summer School *Plasma non-thermiques et applications,* 2003, Iași, Romania ● Summer School *Plasma diagnostics by electrical probes and lasers*, 2011, Iași, Romania.
Technical skills and competences	● Design, development and diagnosis of plasma sources: High Power Impulse Magnetron Sputtering (HiPIMS), Pulsed Thermionic Vacuum Arc (PTVA), High Power Impulse Hollow Cathode (HiPIHC) ● thin films deposition from a wide range of materials using: DC magnetron sputtering and HiPIMS, TVA, Pulsed HC ● measurements for the study of: structural (XRD, RAMAN, SEM), topological (AFM), piezoelectric (PFM), magnetic (MFM), optical (UV-Vis Transmittance), electrical (Four Point Probe), mechanical (nanoindentation) and tribological (nanoscratch) properties of thin films ● electrical (electrical probes, mass spectrometry), optical (OES, fast imaging), and spectral (TD-LAS and TD-LIF) plasma diagnosis and data acquisition systems.
Scientific research activity	100 ISI papers (37 as first author) 7 national patents 10 papers *in extenso* in proceedings of international conferences 120 international conference participations (60 as presenting author) Director of 1 national grant and member of research team in 17 natioanal grants Hirsch index: 21 (WOS), 23 (Scopus), 25 (Google Scholar).
Awards	●*Gold Medal* and *Diploma of Honour* for the patent entitled “*Installation and process for energetic metal ion beam with application in space propulsion*”, XXIIIrd International Exhibition of Inventics, INVENTICA 2019. ● The prize “Dragomir Hurmuzescu” offered by the Romanian Academy of Science. ● Research Excellence Award to recognize *the great results obtained in scientific research activity carried out during the period 01.01.2019 – 31.12.2022*, offered by “Alexandru Ioan Cuza” University of Iasi, Romania.
Additional information	Member of: Romanian Physical Society, EUROfusion (WPPFC), Iasi Plasma Advanced Research Center, and Work Group 5 “ Reactive HIPP processes” of the COST Action MP0804 *Highly Ionised Pulse Plasma Processes*; ● Reviewer: *Journal of Physics D: Applied Physics, Surface & Coatings Technology, Thin Solid Films, Plasma Sources Science and Technology;* ● Member of 8 Doctoral guidance commission; ● UEFISCDI ID from BrainMap: U-1700-030E-5691, https://www.brainmap.ro/vasile-tiron;

Computer skills and competences	Competent with most Microsoft Office programmes, Maple, Origin, Fast Imaging software
Annexes	List of papers, brevets and scientific projects.

10th December 2025

CS I dr. habil. Vasile Tiron

Annexes

Papers in ISI ranked journals

1. V. Tiron, C. Vitelaru, M. Solomon, F. M. Tufescu, G. Popa, *"Transitory phenomena in pulsed reactive magnetron discharge"*, Journal of Optoelectronics and Advanced Materials 8(1) (2006) 66-70.
IF = 1.106, AIS = 0.102
2. C. VITELARU, **V. TIRON**, C. ANDREI, S. DOBREA, G. POPA, "*On the density of the argon metastable in a cylindrical magnetron discharge*", Journal of Optoelectronics and Advanced Materials 10(8) (2008) 2003 – 2006.
IF = 0.577, AIS = 0.102
3. V. Tiron, C. Andrei, A. V. Nastuta, G. B. Rusu, C. Vitelaru and G. Popa, "*Carbon and Tungsten Sputtering in a Helium Magnetron Discharge",* IEE Transaction on Plasma Science 37(8) (2009) 1581-1585.
IF = 1.447, AIS = 0.492
4. V. Tiron, S. Dobrea, C. Costin and G. Popa, "*On the carbon and tungsten sputtering rate in a magnetron discharge"*, Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms 267(2) (2009) 434-437. https://doi.org/10.1016/j.nimb.2008.10.058
IF = 0.999, AIS = 0.362
5. C. Costin, **V. Tiron**, J. Faustin, and G. Popa, *"Fast Imaging Investigation on Pulsed Magnetron Discharge"*, IEEE Transactions on Plasma Science, 39(11) (2011) 2482 – 2483.
IF = 1.174, AIS = 0.423
6. Vasile Tiron, Marius Dobromir, Valentin Pohoata and Gheorghe Popa, "*Ion energy distribution in thermionic vacuum* arc*",* IEEE Transaction on Plasma Science 39(6) (2011) 1403-1407.
IF = 1.174, AIS = 0.423
7. V. Tiron, L. Mihaescu, C.P. Lungu, G, Popa, *"Strong double layer structure in thermionic vacuum arc*", Romanian Journal of Physics 56 (2011) 41–46.
IF = 0.414
8. Catalin Vitelaru,Valentin Pohoata, Constantin Aniculaesei,**Vasile Tiron** and Gheorghe Popa, "*The break-down of hyperfine structure coupling induced by the Zeeman effect on aluminum* $^2S_{1/2}$ - $^2P_{1/2}$ *transition, measured by tunable diode-laser induced fluorescence*", Journal of Applied Physics 109 (2011) 084911. https://doi.org/10.1063/1.3579446
IF = 2.168, AIS = 0.834
9. Ioana-Laura Velicu, Maria Neagu, Horia Chiriac, **Vasile Tiron** and Marius Dobromir, *"Structural and Magnetic Properties of FeCuNbSiB Thin Films Deposited by HiPIMS",* IEEE Transactions on Magnetics. 4(48) (2012) 1336 – 1339.
IF = 1.422, AIS = 0.368
10. V. Tiron, L. Sirghi, G. Popa, *„Control of aluminum doping of ZnO:Al thin films obtained by high-power impulse magnetron sputtering",* Thin Solid Films 520 4305–4309 (2012). https://doi.org/10.1016/j.tsf.2012.02.079
IF = 1.89, AIS = 0.551
11. V. TIRON, T. COMAN, L. SIRGHI, G. POPA, *"Atomic force microscopy investigation of piezoelectric response of ZnO thin films deposited by HIPIMS",* Journal of Optoelectronics and Advanced Materials 15 (2013) 77-81.
IF = 0.563, AIS = 0.111
12. A.P. Rambu. **V. Tiron**, V. Nica, N. Iftimie, "*Functional properties of ZnO films prepared by thermal oxidation of metallic films",* Journal of Applied Physics 113 (2013) 234506. http://dx.doi.org/10.1063/1.4811357
IF = 2.185, AIS = 0.721
13. Ioana-Laura Velicu, Maciej Kowalczyk, Maria Neagu, **Vasile Tiron**, Horia Chiriac, Jaroslaw Ferec, *"FINEMET-type thin films deposited by HiPIMS: Influence of growth and annealing conditions on the magnetic behaviour",* Materials Science and Engineering B 178 (2013) 1329 – 1333. http://dx.doi.org/10.1016/j.mseb.2013.03.002
IF = 2.122, AIS = 0.463
14. S. Dobrea, I. Mihaila, **V. Tiron**, G. Popa, *"Optical and mass spectrometry diagnosis of a* CO_2 *microwave plasma discharge"*, Romanian Reports in Physics 66(41) (2014) 1147-1154.
IF = 1.517, AIS = 0.209
15. M. Osiac, **V. Tiron**, G.E. Iacobescu, G. Popa, *"A comparative study of* $Ge_1Sb_2Te_4$ *films deposited by radiofrequency and pulsed direct current magnetron sputtering and high power impulse magnetron sputtering"*, *Digest Journal of Nanomaterials and Biostructures* 9(2) 451-457 (2014).
IF = 0.945, AIS = 0.202
16. Tudor Coman, Elena Laura Ursu, Valentin Nica, **Vasile Tiron**, Mihaela Olaru, Corneliu Cotofana,Marius Dobromir, Adina Coroaba, Oana-Georgiana Dragos, Nicoleta Lupu,Ovidiu Florin Caltun, Cristian Ursu, *„Improving the uncommon (110) growing orientation of Al-doped ZnO thin films through sequential pulsed laser deposition",* Thin Solid Films 571 (2014) 198–205. http://dx.doi.org/10.1016/j.tsf.2014.10.037
IF = 1.759, AIS = 0.455
17. L. Sirghi, D. Ciumac and **V. Tiron**, *„Mechanical properties of atomic force microscopy probes with deposited thin films".* Thin Solid Films 565 (2014) 267-270. http://dx.doi.org/10.1016/j.tsf.2014.06.027
IF = 1.759, AIS = 0.455
18. Ioana-Laura Velicu, **Vasile Tiron**, Gheorghe Popa, *"Dynamics of the fast - HiPIMS discharge during FINEMET – type films deposition"*, Surface & Coatings Technology, 250 (2014) 57-64. http://dx.doi.org/10.1016/j.surfcoat.2014.03.015

IF = 1.998, AIS = 0.515

19. I.-L. Velicu, **V. Tiron**, "*On the transport phenomena in highly ionized pulsed plasma during FeCuNbSiB thin film deposition process"*, Digest Journal of Nanomaterials and Biostructures 9(4) (2014) 1513 – 1522.

IF = 0.945, AIS = 0.202

20. V. Tiron, I-L. Velicu, F. Ghiorghiu and 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 67 (2015) *1004-1017.*

IF = 1.367, AIS = 0.184

21. I.-L. Velicu, M. Neagu, **V. Tiron,** Fe73.5Cu1Nb3Si15.5B7 *"Thin Films Deposited by HiPIMS: Magnetic and Magnetostrictive Behaviour"*, Journal of Superconductivity and Novel Magnetism 28 (2015) 1035. http://dx.doi.org/10.1007/s10948-014-2740-8

IF = 1.1, AIS = 0.182

22. L. Sirghi, **V. Tiron ,** M. Dobromir, *"Friction at single-asperity contacts between hydrogen-free diamond-like carbon thin film surfaces",* Diamond and related materials 52 (2015) 38–42. http://dx.doi.org/10.1016/j.diamond.2014.12.007

IF = 2.125, AIS = 0.482

23. O. Antonin, **V. Tiron**, C. Costin, G. Popa, T.M. Minea, *"On the HiPIMS benefits of multi-pulse operating mode"*, Journal of Physics D: Applied Physics 48 (2015) 015202. http://dx.doi.org/10.1088/0022-3727/48/1/015202

IF = 2.772, AIS = 0.838

24. I-L Velicu, **V. Tiron,** M. Neagu, *„Nanomechanical characterization of amorphous and nanocrystalline FeCuNbSiB thin films",* Applied Surface Science 352 (2015) 5-9. http://dx.doi.org/10.1016/j.apsusc.2014.12.143

IF = 3.15, AIS = 0.574

25. V. Tiron, L. Sirghi „*Tuning the band gap and nitrogen content of ZnOxNy thin films*", Surface & Coatings Technology, 282 (2015) 103-106. http://dx.doi.org/10.1016/j.surfcoat.2015.10.017

IF = 2.139, AIS = 0.526

26. V. Tiron, I-LVelicu, O Vasilovici, G Popa, *"Optimization of deposition rate in HiPIMS by controlling the peak target current"*, Journal of Physics D: Applied Physics 48 (2015) 495204. http://dx.doi.org/10.1088/0022-3727/48/49/495204

IF = 2.772, AIS = 0.838

27. S. CONDURACHE-BOTA, **V. TIRON**, M. PRAISLER, *"Highly transparent bismuth oxide thin films deposition: morphology - optical properties correlation studies"*, Journal of Optoelectronics and Advanced Materials 17 (2015) 1296 – 1301.

IF = 0.383, AIS = 0.078

28. M. OSIAC, **V. TIRON**, G.-E. IACOBESCU, *"The effect of nitrogen doping on the structure of Ge1Sb2Te4 film",* Journal of Optoelectronics and Advanced Materials 17 (2015) 1471 – 1475.

IF = 0.383, AIS = 0.078

29. Diana Mardare, Nicoleta Cornei, Carmen Mita, Daniel Florea, Alexandru Stancu, Vasile Tiron, Alina Manole, Catalin Adomnitei, *"Low Temperature TiO2 Based Gas Sensors for CO2"*, Ceramics International 42 (2016) 7353–7359. http://dx.doi.org/10.1016/j.ceramint.2016.01.137

IF = 2.986, AIS = 0.459

30. V. Tiron, I.-L. Velicu, A. Demeter, M. Dobromir, F. Samoila, C. Ursu and L. Sirghi, "*Reactive multi-pulse HiPIMS deposition of oxygen-deficient TiO_x thin film*", Thin Solid Films, 603 (2016) 255-26. http://dx.doi.org/10.1016/j.tsf.2016.02.025

IF = 1.879, AIS = 0.383

31. R. Danac, A. Carlescu, L. Leontie, S. Shova, **V. Tiron**, G. Rusu, F. Iacomi, S. Gurlui, O. Susu, G.I. Rusu, „*Electric conduction mechanism of some heterocyclic compounds, 4,4'-bipyridine and indolizine derivatives in thin films*", Thin Solid Films 612 (2016) 358-368. http://dx.doi.org/10.1016/j.tsf.2016.06.012

IF = 1.879, AIS = 0.383

32. Ioana-Laura Velicu, **Vasile Tiron**, Bogdan-George Rusu, Gheorghe Popa, "*Copper thin films deposited under different power delivery modes and magnetron configurations: A comparative study*", Surface & Coatings Technology 327 (2017) 192-199. http://dx.doi.org/10.1016/j.surfcoat.2016.11.001

IF = 2.906, AIS = 0.517

33. Alexandra Demeter, Florentina Samoila, **Vasile Tiron**, Dana Stanescu, Helene Magnan, Mihai Straticiuc, Ion Burducea and Lucel Sirghi, "*Visible-light photocatalytic activity of TiO_xN_y thin films obtained by reactive multi-pulse High Power Impulse Magnetron Sputtering*", Surface & Coatings Technology 324 (2017) 614–619. http://dx.doi.org/10.1016/j.surfcoat.2016.10.011

IF = 2.906, AIS = 0.517

34. Vasile Tiron, Ioana-Laura Velicu, Dana Stanescu, Helene Magnan and Lucel Sirghi, "*High Visible Light Photocatalytic Activity of Nitrogen-Doped ZnO Thin Films Deposited by HiPIMS*", Surface & Coatings Technology 324 (2017) 594–600. http://dx.doi.org/10.1016/j.surfcoat.2016.11.087

IF = 2.906, AIS = 0.517

35. Ioana-Laura Velicu, **Vasile Tiron**, Corneliu Porosnicu, Ion Burducea, Nicoleta Lupu, George Stoian, Gheorghe Popa, Daniel Munteanu, "*Enhanced properties of tungsten thin films deposited with a novel HiPIMS approach*", Applied Surface Science 424 (2017) 397-406. http://dx.doi.org/10.1016/j.apsusc.2017.01.067

IF = 4.439, AIS = 0.627

36. C. Tugui, A. Bele, **V. Tiron**, E. Hamciuc, C. D. Varganici and M. Cazacu, "*Dielectric elastomers with voltage-switchable dual functionality built through chemical design*", Journal of Materials Chemistry C 5 (2017) 824 – 834. http://dx.doi.org/10.1039/c6tc05193f

IF = 5.976, AIS = 1.133

37. R. Mateus, A. Hakola, **V. Tiron**, C. Porosnicu, C.P. Lungu, E. Alves, "*Study of deuterium retention in Be-W coatings with distinct roughness profiles*", Fusion Engineering and Design 124 (2017) 464-467. http://dx.doi.org/10.1016/j.fusengdes.2017.01.018

IF = 1.437, AIS = 0.281

38. Vasile Tiron, Ioana–Laura Velicu, Corneliu Porosnicu, Ion Burducea, Paul Dinca, Petr Malinský,*"Tungsten Nitride Coatings Obtained by HiPIMS as Plasma Facing Materials for Fusion Applications"*, Applied Surface Science 416 (2017) 878–884. http://dx.doi.org/10.1016/j.apsusc.2017.04.183

IF = 4.439, AIS = 0.627

39. P. Dinca, C. Porosnicu, B. Butoi, I. Jepu, **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. http://dx.doi.org/10.1016/j.surfcoat.2017.04.074

IF = 2.906, AIS = 0.517

40. Alexandra Demeter, **Vasile Tiron**, Nicoleta Lupu, George Stoian and Lucel Sirghi, *"Plasma sputtering depositions with colloidal masks for fabrication of nanostructured surfaces with photocatalytic activity"*, Nanotechnology 28 (2017) 255302. https://doi.org/10.1088/1361-6528/aa712a

IF = 3.404, AIS = 0.791

41. M. Rudolph, A. Demeter, E. Foy, **V. Tiron**, L. Sirghi, T. Minea, B. Bouchet-Fabre, M.-C. Hugon, "*Improving the crystallinity of Ta_3N_5 thin films by DC magnetron sputtering using an additional in-axis magnetic field on a balanced magnetron*", Thin Solid Films 636 (2017) 48–53. http://dx.doi.org/10.1016/j.tsf.2017.05.033

IF = 1.939, AIS = 0.356

42. C. Racles, M. Dascalu, A. Bele, **V. Tiron**, M. Asandulesa, C. Tugui, A. Vasiliu and M. Cazacu, *All-silicone elastic composites with counter-intuitive piezoelectric response, designed for electromechanical applications*, Journal of Materials Chemistry C 5 (2017) 6997 – 7010. http://dx.doi.org/10.1039/c7tc02201h

IF = 5.976, AIS = 1.133

43. Jan Willem Coenen et al. *"Plasma-wall interaction studies within the EUROfusion Consortium: progress on plasmafacing components development and qualification",* Nuclear Fusion 57(11) (2017) 116041. https://doi.org/10.1088/1741-4326/aa796e

IF = 4.057, AIS = 0.836

44 M. Iacob, C. Tugui, **V. Tiron**, Vasile, A. Bele, V. Stelian, T. Vasiliu, M. Cazacu, A.-L. Vasiliu, C. Racles,*"Iron oxide nanoparticles as dielectric and piezoelectric enhancers for silicone elastomers*", Smart Materials and Structures 26 (2017) 105046. https://doi.org/10.1088/1361-665X/aa867c

IF = 2.963, AIS = 0.772

45. N. Becherescu, I. Mihailescu, **V. Tiron,** C. Luculescu, *"Preparation and characterization of ZnO thin films by PLD and HiPIMS"*, UPB Scientific Bulletin, Series A: Applied Mathematics and Physics, 79(2) (2017) 297-306.

IF = 0.461, AIS = 0.094

46. N. Becherescu, I. Mihailescu, **V. Tiron,** C. Luculescu, *"Preparation and characterization of TiO2 thin films by PLD and HiPIMS"*, UPB Scientific Bulletin, Series A: Applied Mathematics and Physics 79(3) (2017) 203-212.

IF = 0.461, AIS = 0.094

47. Alexandra Demeter, Alexandra Besleaga, **Vasile Tiron**, Lucel Sirghi, "*Fabriaction of 2D TiO_2 Nanopatterns by Plasma Colloidal Lithography"*, Recent Global Research and Education: Technological Challenges, Book Series: Advances in Intelligent Systems and Computing 519 (2017) 117 -122. https://doi.org/10.1007/978-3-319-46490-9

48. **Vasile Tiron**, Ioana-Laura Velicu, Daniel Cristea, Nicoleta Lupu, George Stoian, Daniel Munteanu, „*Influence of ion-to-neutral flux ratio on the mechanical and tribological properties of TiN coatings deposited by HiPIMS*", Surface & Coatings Technology 352 (2018) 690-698. https://doi.org/10.1016/j.surfcoat.2017.11.048

IF = 3.192, AIS = 0.511

49. A. DEMETER, **V. TIRON**, L. SIRGHI, *"TiO_2 2D nanopatterns obtained by high power impulse magnetron sputtering depositions with colloidal masks",* Romanian Reports in Physics 70 (4) (2018).

IF = 1.94, AIS = 0.296

50. V Tiron, I-L Velicu, I Mihăilă and G Popa, *"Deposition rate enhancement in HiPIMS through the control of magnetic field and pulsing configuration*" Surface & Coatings Technology 337 (2018) 484–491. https://doi.org/10.1016/j.surfcoat.2018.01.065

IF = 3.192, AIS = 0.511

51. L. Leontie,· R. Danac, A. Carlescu C. Doroftei, · G. G. Rusu, · **V. Tiron,** S. Gurlui, O. Susu, „*Electric and optical properties of some new functional lower-rim substituted calixarene derivatives in thin films*", Applied Physics A 124(355) (2018) 1-12. https://doi.org/10.1007/s00339-018-1784-1

IF = 1.784, AIS = 0.308

52. Vasile TIRON, Ioana-Laura VELICU, Iulian PANA, Daniel CRISTEA, Bogdan George RUSU, Paul DINCA, Corneliu POROSNICU, Eduard GRIGORE, Daniel MUNTEANU, Sorin TASCU, *"HiPIMS deposition of silicon nitride for solar cell application"*, Surface & Coatings Technology 344 (2018) 197–203. https://doi.org/10.1016/j.surfcoat.2018.03.025

IF = 3.192, AIS = 0.511

53. Dan Macovei, **Vasile Tiron,** Catalin Adomnitei, Dumitru Luca, Marius Dobromir, Stefan Antohe, Diana Mardare, *„On the hydrophilicity of Ni-doped TiO2 thin films. EXAFS studies"*, Thin Solid Films 657 (2018) 42 - 49. https://doi.org/10.1016/j.tsf.2018.04.045

IF = 1.888, AIS = 0.324

54. Vasile Tiron, Ioana-Laura Velicu, Andrei Nastuta, Claudiu Costin, Gheorghe Popa, Ziane Kechidi, Codrina Ionita, Roman Schrittwieser, *"Enhanced extraction efficiency of the sputtered material from a magnetically assisted high power impulse hollow cathode",* Plasma Sources Science and Technology 27 (2018) 085005. https://doi.org/10.1088/1361-6595/aad3ff

IF = 4.128, AIS = 0.804

55. Ioana-Laura VELICU, Gabriela-Theodora IANOŞ, Corneliu POROSNICU, Ilarion MIHĂILĂ, Ion BURDUCEA, Alin VELEA, Daniel CRISTEA,

Daniel MUNTEANU, **Vasile TIRON**, *„Energy-Enhanced Deposition of Copper Thin Films by Bipolar High Power Impulse Magnetron Sputtering",* Surface & Coatings Technology 259 (2019) 97–107. https://doi.org/10.1016/j.surfcoat.2018.12.079
IF = 3.784, AIS = 0.542

56. P. Dinca, **V. Tiron**, I. Mihaila, I.-L. Velicu, C. Porosnicu, B. Butoi, A. Velea, E. Grigore, C. Costin, C.P. Lungu, *"Negative ion-induced deuterium retention in mixed W-Al layers co-deposited in dual-HiPIMS"*, Surface & Coatings Technology 363 (2019) 273-281. https://doi.org/10.1016/j.surfcoat.2019.02.019
IF = 3.784, AIS = 0.542

57. Georgiana-Oana Turcan-Trofin, Mihai Asandulesa, Mihaela Balan-Porcarasu, Cristian-Dragos Varganici, **Vasile Tiron**, Carmen Racles, Maria Cazacu, *„Linear and cyclic siloxanes sulfur-bridged functionalized with polar groups by thiol-ene addition: synthesis, characterization and exploring some material behaviour"*, Journal of Molecular Liquids 282 (2019) 87-196. https://doi.org/10.1016/j.molliq.2019.03.005
IF = 5.065, AIS = 0.62

58. V. Tiron, C. Porosnicu, P. Dinca, I.-L. Velicu, D. Cristea, D. Munteanu, Á. Révész, G. Stoian, C.P. Lungu. "*Beryllium thin films deposited by thermionic vacuum arc for nuclear applications*", Applied Surface Science 481 (2019) 327 – 336. https://doi.org/10.1016/j.apsusc.2019.03.096
IF = 6.182, AIS = 0.773

59. V. Tiron, E.-L. Ursu, D. Cristea, D. Munteanu, G. Bulai, A. Ceban, I.-L. Velicu, *"Overcoming the insulating materials limitation in HiPIMS: ion-assisted deposition of DLC coatings using bipolar HiPIMS"*, Applied Surface Science 494 (2019) 871–879. https://doi.org/10.1016/j.apsusc.2019.07.239
IF = 6.182, AIS = 0.773

60. Georgiana-Oana Turcan-Trofin, Mirela-Fernanda Zaltariov, Mihail Iacob, **Vasile Tiron**, Florin Branza, Carmen Racles, Maria Cazacu,"*Copper complexes with spherical morphology generated in one step by amphiphilic ligands: in situ view of the self-assembling, characterization, catalytic activity*", Colloids and Surfaces A: Physicochemical and Engineering Aspects 580 (2019) 123756. https://doi.org/10.1016/j.colsurfa.2019.123756
IF = 3.990, AIS = 0.504

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Participation to scientific projects, as a member of the reserach team:

1. Grant CNCSIS, type A No. 40213, **„***Diagnosis by means of electrical and optical methods of plasma produced in noble gases and gas mixtures", period:*2001-2004, project director: Prof. dr. Gheorghe POPA

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8. Grant bilateral Romania-Belarus AR-FRBCF-2012 *„Formation of gradient coatings based on oxide and nitride ceramics, metals, polymers by plasma and sol-gel methods in order to control physical and chemical properties",* period: 2012 – 2013, project director: Conf. Dr. Claudiu COSTIN.

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10th December 2025

CS I dr. habil. Vasile Tiron