ANEXA 1

CS III dr. Vasile TIRON

FIȘA DE EVALUARE GENERALĂ A STANDARDELOR UNIVERSITĂȚII

CRITERII	DESCRIPTORI	PUNCTAJE ACORDATE
	1. Articole științifice publicate *in extenso* în reviste cotate *Web of Science* cu factor de impact	(60 puncte x factor de impact + 25) / număr autori **2260.41**
	2. Articole științifice publicate *in extenso* în reviste indexate fără factor de impact	20 puncte / număr autori **18.63**
	3. Articole științifice publicate *in extenso* în reviste indexate BDI	15 puncte / număr autori **5.14**
	4. Articole științifice publicate *in extenso* în volumele conferințelor	indexate ISI: 30 puncte / număr autori
		indexate în BDI: 15 puncte / număr autori
		alte categorii: 5 puncte / număr autori
	5. Cărți științifice publicate (doar prima ediție)	edituri academice internaționale: 100 puncte la 100 pagini / număr autori
		alte edituri internaționale: 70 puncte la 100 pagini / număr autori
		edituri academice naționale: 50 puncte la 100 pagini / număr autori
		alte edituri naționale: 20 puncte la 100 pagini / număr autori
	6. Cărți științifice traduse și publicate în edituri din străinătate	100 puncte la 100 pagini / număr autori
	7. Coordonarea și editarea de volume, traduceri și antologii	edituri academice internaționale: 60 puncte / număr autori
		alte edituri internaționale: 40 puncte / număr autori
		edituri academice naționale: 30 puncte / număr autori
		alte edituri naționale: 15 puncte / număr autori
	8. Articole publicate în dicționare și enciclopedii	edituri academice internaționale: 30 puncte / număr autori
		alte edituri internaționale: 20 puncte / număr autori
		edituri academice naționale: 15 puncte / număr autori
		alte edituri naționale: 5 puncte / număr autori
	9. Contracte de cercetare științifică în instituții academic (universități, institute ale Academiei Române, institute naționale de cercetare, institude de cercetare din străinătate, alte caegorii de institute academic)	contracte internaționale – director: 100 puncte pentru fiecare
		contracte internaționale – membru: 100 puncte pentru fiecare100.000 Euro / numărul membrilor echipei de cercetare
		contracte naționale – director: 50 puncte pentru fiecare 500.000 lei **221.21**

CRITERII	DESCRIPTORI	PUNCTAJE ACORDATE
		contracte naționale – membru: 50 puncte pentru fiecare 500.000 lei / numărul membrilor echipei de cercetare **65.14**
	10. Contracte de cercetare în mediul de afaceri și sectorul public	organizații internaționale: 100 puncte pentru fiecare
		firme multinaționale: 100 puncte pentru fiecare 100.000 Euro
		firme naționale: 50 puncte pentru fiecare 500.000 Euro
		organizații administrative naționale: 40 puncte pentru fiecare 500.000 Euro
		alte organizații publice de nivel național: 30 puncte pentru fiecare 500.000 Euro
	11. Brevete	internaționale: 100 puncte / număr de autori
		naționale: 30 puncte / număr autori **3.33**
	12. Citări și recenzii ale lucrărilor științifice	reviste de specialitate din străinătate: (10 + 20 x factor de impact) / număr autori, pentru fiecare citare **2493.76**
		reviste de specialitate din țară: (5 + 10 x factor de impact) / număr autori, pentru fiecare citare **93.94**
		monografii academice din străinătate: 50 puncte / număr autori, pentru fiecare citare
		monografii academice din țară: 25 puncte / număr autori, pentru fiecare citare
	13. Lucrări susținute în calitate de invitat la manifestări științifice (conferințe, congrese, simpozioane, seminarii și ateliere de lucru)	străinătate: 25 puncte pentru fiecare activitate **75**
		țară: 10 puncte pentru fiecare activitate **70**
	14. Profesor/cercetător invitat la universități/institute de cercetare	străinătate: 25 puncte pentru fiecare activitate
		țară: 10 puncte pentru fiecare activitate
	15. Editor/Membru în *Editorial Board* & *Advisory Board*	reviste cotate *Web of Science*: editor, 30 puncte pentru fiecare revistă; membru, 20 puncte pentru fiecare revistă
		reviste internaționale și alte reviste ale Universității: editor, 15 puncte pentru fiecare revistă; membru, 10 puncte pentru fiecare revistă
	16. Premii internaționale obținute printr-un proces de selecție	100 puncte / categorie / număr persoane **100.8**
	17. Premii ale Academiei Române	50 puncte / categorie / număr personae
	18. Alte premii naționale ale instituțiilor culturale	20 puncte / categorie / număr personae
	19. Participări la manifestări științifice	internaționale: președinte comitet organizare/consiliu științific, 25 puncte

CRITERII	DESCRIPTORI	PUNCTAJE ACORDATE
		pentru fiecare activitate; **membru comitet organizare**/consiliu științific, 15 puncte pentru fiecare activitate; moderator de panel, 15 puncte pentru fiecare activitate; raportor pe secțiuni/paneluri, 10 puncte pentru fiecare activitate **120**
		naționale: președinte comitet organizare/consiliu științific, 15 puncte pentru fiecare activitate; membru comitet organizare/consiliu științific, 5 puncte pentru fiecare activitate; moderator de panel, 5 puncte pentru fiecare activitate; raportor pe secțiuni/paneluri, 2 puncte pentru fiecare activitate
II. ACTIVITATEA DIDACTICĂ	1. Tratate și manuale universitare	30 puncte la 100 pagini / număr de autori
	2. Proiecte didactice (înființare/dotare laboratoare licență, master, săli workshop, biblioteci proprii facultăților, departamentelor, laboratoarelor și grupurilor de cercetare)	40 puncte pentru fiecare activitate
	3. Materiale suport curs, seminar, lucrări practice și programe	10 puncte pentru fiecare activitate
	4. Organizare de aplicații și practică de specialitate	5 puncte pentru fiecare activitate

Punctaj Total = 5527.33 puncte

Justificare punctaj la FIȘA DE EVALUARE GENERALĂ A STANDARDELOR UNIVERSITĂȚII:

I. 1. Articole științifice publicate *in extenso* în reviste cotate *Web of Science* cu factor de impact [(60 puncte x factor de impact + 25) / număr autori]

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 **Punctaj = 18.267**

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 **Punctaj = 11.924**

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 **Punctaj = 20.33**

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.
IF = 0.999 **Punctaj = 21.235**

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 **Punctaj = 23.86**

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 **Punctaj = 23.86**

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 **Punctaj = 12.46**

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. 31.376
IF = 2.168 **Punctaj = 31.376**

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 = 1.363 **Punctaj = 21.356**

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).
IF = 1.89 **Punctaj = 46.133**

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 **Punctaj = 14.695**

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.
IF = 2.185 **Punctaj = 39.025**

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.
IF = 2.122 **Punctaj = 27.694**

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 **Punctaj = 29.005**

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 **Punctaj = 20.425**

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.
IF = 1.759 **Punctaj = 15.357**

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.
IF = 1.759 **Punctaj = 43.513**

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.
IF = 1.998 **Punctaj = 48.293**

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 **Punctaj = 40.85**

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 **Punctaj = 26.755**

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.
IF = 1.1 **Punctaj = 30.333**

22. L. Sirghi, **V. Tiron ,** M. Dobromir, *"Friction at single-asperity contacts between hydrogen-free diamond-like carbon thin film surfaces",* Diamonds and related materials 52 (2015) 38–42.
IF = 2.125 **Punctaj = 50.833**

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.
IF = 2.772 **Punctaj = 38.264**

24. I-L Velicu, **V. Tiron,** M. Neagu, *„Nanomechanical characterization of amorphous and nanocrystalline FeCuNbSiB thin films",* Applied Surface Science 352 (2015) 5-9.
IF = 3.15 **Punctaj = 71.333**

25. V. Tiron, L. Sirghi *„Tuning the band gap and nitrogen content of ZnOxNy thin films*", Surface & Coatings Technology, 282 (2015) 103-106.
IF = 2.139 **Punctaj = 76.670**

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.

IF = 2.772 **Punctaj = 47.83**

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 **Punctaj = 15.933**

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 **Punctaj = 15.933**

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.

IF = 2.986 **Punctaj = 31.409**

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.

IF = 1.879 **Punctaj = 22.956**

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.

IF = 1.879 **Punctaj = 18.365**

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.

IF = 2.906 **Punctaj = 49.840**

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.

IF = 2.906 **Punctaj = 30.670**

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.

IF = 2.906 **Punctaj = 39.872**

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.

IF = 4.439 **Punctaj = 44.821**

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.

IF = 5.976 **Punctaj = 69.738**

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.

IF = 1.437 **Punctaj = 22.244**

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.

IF = 4.439 **Punctaj = 52.971**

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.
IF = 2.906 **Punctaj = 33.226**

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.
IF = 3.404 **Punctaj =45.848**

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.
IF = 1.939 **Punctaj = 21.744**

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.
IF = 5.976 **Punctaj = 59.009**

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.
IF = 4.057 **Punctaj = 4.688**

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.
IF = 0.461 **Punctaj = 28.968**

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 **Punctaj = 13.165**

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 = 0.279 **Punctaj = 13.165**

47. **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.
IF = 3.192 **Punctaj = 39.367**

48. 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 **Punctaj = 47.133**

49. 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.
IF = 3.192 **Punctaj = 54.130**

50. 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.
IF = 1.784 **Punctaj = 20.313**

51. 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.

IF = 3.192 **Punctaj = 28.869**

52. 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.

IF = 1.888 **Punctaj = 23.046**

53. 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 Source Science and Technology 27 (2018) 085005.

IF = 4.128 **Punctaj = 41.950**

54. 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.

IF = 3.192 **Punctaj = 30.931**

55. 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.

IF = 3.192 **Punctaj = 28.869**

56. 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.

IF = 4.561 **Punctaj = 45.947**

57. 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.

IF = 5.155 **Punctaj = 47.757**

58. 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.

IF = 5.155 **Punctaj = 55.716**

59. 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.

IF = 3.131 **Punctaj = 32.747**

60. Codrin Tugui, **Vasile Tiron**, Mihaela Dascalu, Liviu Sacarescu, Maria Cazacu, *„From an ultra-high molecular weight polydimethylsiloxane to the super-soft elastomer"*, European Polymer Journal 120 (2019) 109243.

IF = 3.621 **Punctaj = 48.452**

61. Alicia Rambu, Alin Apetrei, Florent Doutre, Hervé Tronche, **Vasile Tiron**, Marc Micheli, and Sorin Tascu *„Lithium niobate waveguides with high-index contrast and preserved nonlinearity fabricated by High Vacuum Vapor-phase Proton Exchange*", Photonics Research 8 (2020) 8-16.

IF = 5.522 **Punctaj = 59.386**

62. V. Tiron, I.-L. Velicu, *"Understanding the ion acceleration mechanism in bipolar HiPIMS: the role of the double layer structure developed in the after-glow plasma"*, Plasma Source Science and Technology (2020) doi: 10.1088/1361-6595/ab6156

IF = 4.128 **Punctaj = 136.340**

63. F. Gheorghiu, R. Stanculescu, L. Curecheriu, E. Brunengo, P. Stagnaro, **V. Tiron**, P. Postolache, M.

T. Buscaglia, L. Mitoseriu, *"PVDF-ferrite composites with dual magneto-piezoelectric response for flexible electronics applications: synthesis and functional properties"*, Journal of Materials Science (2020) doi: 10.1007/s10853-019-04279-w
IF = 3.442 **Punctaj = 33.074**

I.1 = 2260.41 puncte

I.2. Articole ştiinţifice publicate *in extenso* în reviste indexate fără factor de impact (20 puncte / număr autori)

1. **V. Tiron** and G. Popa, "*Control of the thermionic vacuum arc plasma*", 24th International Symposium on Discharges and Electrical Insulation in Vacuum, Book Series: International Symposium on Discharges and Electrical Insulation in a Vacuum, (2010) pp. 390- 393. **Punctaj = 10**
2. S. Condurache-Bota, C. Constantinescu, M. Praisler, **V. Tiron**, N. Tigau, C. Gheorghies, *"The influence of laser wavelength and pulses number on the structure and the optical properties of pulsed laser-deposited bismuth oxide thin films"*, Proceedings of the International Semiconductor Conference – CAS, 6966400 (2014) 87-90. **Punctaj = 3.3**
3. A. Demeter, A. Besleaga, **V. Tiron**, L. 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. **Punctaj = 5**

I.2 = 18.33 puncte

I. 3. Articole ştiinţifice publicate in extenso în reviste indexate BDI (15 puncte / număr autori)

1. C. Vitelaru, V. Pohoata, **V. Tiron**, C. Costin and G. Popa, *"On both spatial and velocity distribution of sputtered particles in magnetron discharge"* Analele Stiintifice ale Universitatii de Vest Timisoara, 56 (2012) 43-57. **Punctaj = 3**
2. I. Chirap, **V.Tiron**, T. Teslaru, N. Dumitrascu, C. C. Budacu, A. S. Rotaru, A.M.Prodan, „Characterization of ha hybrid materials optimized by plasma technologies", Biomaterials, 5 (2015) 72. **Punctaj = 2.14**

I.3 = 5.14 puncte

I.9. Contracte de cercetare ştiinţifică în instituţii academice (universităţi, institute ale Academiei Române, institute naţionale de cercetare, institute de cercetare din străinătate, alte categorii de institute academice)

contracte naţionale – director: 50 puncte pentru fiecare 500.000 lei

Director proiect PN-II-PT-PCCA- 2011-3.2-1340, no. 174/2012 *„Procese si instalatie pentru depunerea de straturi subtiri in plasme pulsate cu grad ridicat de ionizare",* perioada 2013-2016, Valoare: 2 212 080 lei.
Punctaj = 221.2

Membru: contracte naţionale – membru: 50 puncte pentru fiecare 500.000 lei /numărul membrilor

1. Proiect IDEI PN-II-PCE-2011-3-0270 *„Functionalizarea probelor nanoscopice in plasma",* perioada 2012-2016

1 500 000 ron / 7 membri **Punctaj = 21.43**

2. Proiect de colaborare ROMANIA-FRANTA – 2012, PN-II-ID-JRP-2012 *„Oxinitruri cu aplicatii in energia solara",* perioada 2014-2016

1 000 000 ron / 7 membri **Punctaj = 14.28**

3. Proiect IDEI, cod CNCSIS ID 540/2008 *„Dezvoltarea de metode si tehnici de diagnoza a plasmelor magnetizate si interactiunea lor cu suprafetele solide*". perioada 2009-2012

1 000 000 ron / 6 membri **Punctaj = 16.66**

4. PN II, CAPACITATI, Modul III, EURATOM-RO, 1EU-1. din 05.06.2014, "*Participarea României la EUROfusion WPPFC* si cercetari complementare*".* perioada 2014-2016

403 000 ron / 9 membri **Punctaj = 4.48**

5. PNCDI III, Program 5 / Subprogram 5.2 / Modul 5.2.1 EURATOM-RO Fuziune nr. 1EU-1/2 din 01.07.2016 „Participarea Romaniei la EUROfusion WPPFC si cercetari complementare"perioada 2016-2019

580 548 ron / 7 membri **Punctaj = 8.29**

I.9 = 286.35 puncte

I.11. Brevete naţionale: 30 puncte / număr autori

1. *"Nanostructured beryllium-based alloy"* CHIRU P, CIUPINA V, JEPU I, LUNGU A M, LUNGU P C, POROSNICU C C, TIRON V, VLADOIU R, ZAROSCHI V N, patent inregistrat la OSIM, Patent RO127300-B1, 2012

I.11 = 3.33 puncte

I. 12. Citări şi recenzii ale lucrărilor Ştiinţifice

1. reviste de specialitate din străinătate:(10 + 20 x factor de impact) / număr autori, pentru fiecare citare

2. reviste de specialitate din ţară: (5 + 10 x factor de impact) / număr autori, pentru fiecare citare

1. 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.

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2. V. Tiron, C. Andrei, A. V. Nastuta, G. B. Rusu, C. Vitelaru and G. Popa, "*Carbon and Tungsten Sputtering in a Helium Magnetron Discharge",* IEEE Transaction on Plasma Science 37(8) (2009) 1581-1585.

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Vacuum Arc, IEEE Transaction on Plasma Science 40(6) (2012) 3546-3551.**IF = 1.174 (5.580)**

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5. 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.

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45. 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.

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46. 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) 187-196.

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47. 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.

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I. 12.1 = 2493.76

I. 12.2 = 93.94

I. 12 = 2587.7 puncte

I.13. Lucrări susținute în calitate de invitat la manifestări științifice (conferințe, congrese, simpozioane, seminarii și ateliere de lucru)

străinătate: 25 puncte pentru fiecare activitate

1. G.Popa, **V.Tiron**, V.Anita, C.Vitelaru and C.Andrei – "*Pulsed magnetron discharge in reactive gases",* The 2nd Inter-Academia for Young Researchers Workshop, 26-30 Septembrie, 2007, Hamamatsu, Japan**.** **Punctaj = 25**

2. V. Pohoata, **V. Tiron**, L. Velicu, C. Vitelaru, I. Mihaila, G. Popa, "*Absorption and LIF techniques applied for high density plasma diagnostic"* , 5th International Wokshop and Summer School on Plasma Physics,25-30 June 2012, Kiten, Bulgaria. **Punctaj = 25**

3. Catalin Vitelaru, Daniel Lundin, **Vasile Tiron**, Nils Brenning, Gheorghe Popa, Tiberiu Minea, *"Laser Diagnostics of Particle Dynamics in HiPIMS Plasmas"*, International Conference on Metallurgical Coatings and Thin Films, 20 April 2015, San Diego, USA. **Punctaj = 25**

țară: 10 puncte pentru fiecare activitate

1. C. Vitelaru, **V. Tiron**, C. Costin and G. Popa, *"LIF technique used for plasma diagnostic of the magnetron discharge"*, 10th International Balkan Workshop on Applied Physics, 6 -8 iulie 2009, Constanta, Romania. **Punctaj = 10**

2. C. Vitelaru, A.S. Chiper, **V. Tiron**, C. Ursu, G. Popa, "*On transitory phenomena in pulsed discharge*", 10th International Conference on Global Research and Education (inter-Academia), 25 -29 septembrie 2011, Sucevita, Romania. **Punctaj = 10**

3. Cristian P. LUNGU, Rodica VLADOIU, **Vasile TIRON**, "Combinatorial film depositions and characterization", 12th International Balkan Workshop on Applied Physics, 6-8 iulie 2011, Constanţa, Romania.

Punctaj = 10

4. F. Iacomi, V. Binas, G. Zodieriu, **V. Tiron**, A. Popa, D. Toloman, M. Dobromir, C. Doroftei, V. Nica, A. Zachopoulos and G. Kiriakidis, *"Functional properties of Mn doped nanostructured titanium oxide powders and thin films"*, TIM-13 Physics Conference, 21-24 Noiembrie 2013, Timisoara, Romania.

Punctaj = 10

5. C. Porosnicu, **V. Tiron**, P. Dinca, I. Jepu, O.G. Pompilian, I. Burducea, C. P. Lungu, *HiPIMS And Reactive Magnetron Sputtering Techniques used for Obtaining Fusion Related Materials,* 16th International Balkan Workshop on Applied Physics (IBWAP), 7-9 July 2016, Constanta, Romania.

Punctaj = 10

6. L. Sirghi, A. Demeter, **V. Tiron**, C. Costin, "*Colloidal lithography by plasma material processing*", 16th International Conference on Global Research and Education, Inter-Academia 2017, September 25-28, 2017, Iasi, Romania. **Punctaj = 10**

7. I.-L. Velicu, **V. Tiron**, D. Cristea, I. Mihaila, D. Munteanu, G. Popa, „*Bipolar HiPIMS: a step further in exploring new perspectives and horizons in coatings deposition*", XVIIIth International Conference on Plasma Physics and Application - CPPA 2019, 20-22 June 2019, Iasi, Romania.

Punctaj = 10

I.13 = 145 puncte

I. 16. Premii internaționale obținute printr-un proces de selecție (100 puncte / categorie / număr persoane)

1. Sponsor's Prize for the most original contribution presented by a young scientist: "*Nanomechanical characterization of amorphous and nanocrystalline FeCuNbSiB thin films"*, Ioana-Laura Velicu, Maria Neagu, Lucian Costinescu,**Vasile Tiron**, Daniel Munteanu, The 10th International Conference on Physics of Advanced Materials –ICPAM-10, September 22-28 2014, Iasi, Romania **Punctaj = 20**

2. Award (3rd prize) to the Joint SHU - Fraunhofer IST HIPIMS Research Centre Award to young researcher: *"Copper thin films deposited under different power delivery modes and magnetron configurations: A comparative study",* by Ioana-Laura Velicu, **Vasile Tiron**, Bogdan-George Rusu, Gheorghe Popa, prezentată la: The 7th International Conference on HiPIMS, 29-30 June 2016, Sheffield, UK **Punctaj = 25**

3. Award (2nd prize) to the Joint SHU - Fraunhofer IST HIPIMS Research Centre Award to young researcher: "*Dual-HiPIMS system as source of fusion related W-Al composite layers having helium and deuterium inclusions*". Authors: P. Dinca, **V. Tiron**, I. Mihăilă, I-L Velicu, C. Porosnicu, B. Butoi, A. Velea, E. Grigore, C. Costin, C.P. Lungu. Poster presentation at The 9th International Conference on HiPIMS, 25-28 June 2018, Sheffield, UK. **Punctaj = 10**

4. Award (3rd prize) to the Joint SHU - Fraunhofer IST HIPIMS Research Centre Award to young researcher:

"*Bipolar High Power Impulse Magnetron Sputtering: a new approach to control the metal ion flux*". Authors: I.-L. Velicu, C. Porosnicu, I. Mihăilă, I. Burducea, A. Velea, D. Cristea, D. Munteanu, **V. Tiron**. Oral presentation at The 9th International Conference on HiPIMS, 25-28 June 2018, Sheffield, UK. **Punctaj = 12.5**

5. Medalia de Aur și **Diploma de Onoare** obținută la Salonul Internațional de Inventică, **INVENTICA 2019,** cu lucrarea: "*Installation and process for energetic metal ion beam with application in space propulsion*", autori **V. Tiron**, I.-L. Velicu, G. Popa. **Punctaj = 33.3**

I.16 = 100.8 puncte

I. 19. Participări la manifestări ştiinţifice:

Participări la manifestări științifice internaţionale (membru comitet organizare/consiliu științific, 15 puncte pentru fiecare activitate)

Membru în comitetul de organizare a 8 conferințe internaționale: CPPA 2003, CPPA 2005, CPPA 2010, CPPA 2019, InterAcademia 2006, InterAcademia 2011, InterAcademia 2017 și ICPIG 2015.

I. 19 = 120 puncte

TOTAL = 5527.33 puncte

Data 18.12.2019 Semnatura