

## Lista publicațiilor științifice - Conf. univ. dr. Claudiu COSTIN

### Articole științifice publicate *in extenso* în reviste cotate Web of Science cu factor de impact

1. C. Costin, "Secondary electron emission under magnetic constraint: from Monte Carlo simulations to analytical solution", *Scientific Reports* **11** (2021) 1874 (11 p)
2. C. Costin, "Particle distribution functions at plasma-surface interface", *AIP Advances* **10** (2020) 115308 (7 p)
3. P. Dinca, V. Tiron, 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", *Surf. Coat. Technol.* **363** (2019) 273-281
4. Revel, T. Minea, C. Costin, "2D PIC-MCC simulations of magnetron plasma in HiPIMS regime with external circuit", *Plasma Sources Sci. Technol.* **27** (2018) 105009 (21 p)
5. V. Tiron, I.-L. Velicu, A. V. Nastuta, C. Costin, G. Popa, Z. Kechidi, C. Ionita and R. Schrittwieser, "Enhanced extraction efficiency of the sputtered material from a magnetically assisted high power impulse hollow cathode", *Plasma Sources Sci. Technol.* **27** (2018) 085005 (11 p)
6. S. Brezinsek et al., "Plasma-wall interaction studies within the EUROfusion consortium: progress on plasma-facing components development and qualification", *Nuclear Fusion* **57**(11) (2017) 116041 (9 p)
7. C. Costin, G. Popa, V. Anita, "Electrical probe characteristic recovery by measuring only one time-dependent parameter", *Rev. Sci. Instrum.* **87** (2016) 033506 (7 p)
8. C. Costin, V. Anita, G. Popa, J. Scholten, G. De Temmerman, "Tailoring the charged particle fluxes across the target surface of Magnum-PSI", *Plasma Sources Sci. Technol.* **25** (2016) 025023 (10 p)
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10. C Costin, V Anita, F Ghiorghiu, G Popa, G De Temmerman, M A van den Berg, J Scholten, S Brons, "Cross-section analysis of Magnum-PSI plasma beam using 2D multi-probe system", *Plasma Sources Sci. Technol.* **24** (2015) 015014 (10 p)
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12. I. Mihaila, S. Costea, C. Costin, and G. Popa, "On Negative Slope of Probe Characteristics in Magnetized Plasmas", *Contrib. Plasma Phys.* **54**(3) (2014) 291-297
13. T.M. Minea, C. Costin, A. Revel, D. Lundin, L. Caillault, "Kinetics of plasma species

- and their ionization in short pulsed HiPIMS by particle modeling", *Surf. Coat. Technol.* **255** (2014) 52-61
14. C. Costin, T. M. Minea, and G. Popa, "Electron transport in magnetrons by a posteriori Monte Carlo simulations", *Plasma Sources Sci. Technol.* **23** (2014) 015012 (11 p)
  15. N. Brenning, D. Lundin, T. Minea, C. Costin and C. Vitelaru, „Spokes and charged particle transport in HiPIMS magnetrons”, *J. Phys. D: Appl. Phys.* **46** (2013) 084005 (10 p)
  16. I. Mihaila, M. L. Solomon, C. Costin, and G. Popa, „On Electrical Probes Used in Magnetized Plasma Diagnostics”, *Contrib. Plasma Phys.* **53**(1) (2013) 96 – 101
  17. 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
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  19. C. Costin, T. M. Minea, G. Popa, and G. Gousset, “Plasma kinetics of Ar/O<sub>2</sub> magnetron discharge by 2D multi-fluid modeling”, *J. Vac. Sci. Technol. A* **28**(2) (2010) 322-328
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  21. J. Brotankova, E. Martines, J. Adamek, J. Stockel, G. Popa, C. Costin, C. Ionita, R. Schrittwieser, and G. Van Oost, “Novel Technique for Direct Measurement of the Plasma Diffusion Coefficient in Magnetized Plasma”, *Contributions to Plasma Physics* **48**(5-7) (2008) 418-423
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27. C. Costin, L. Marques, G. Popa, and G. Gousset, "Two-dimensional fluid approach to the dc magnetron discharge", *Plasma Sources Sci. Technol.* **14** (2005) 168-176
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1. I.-L. Velicu, V. Tiron, I. Mihaila, C. Costin, "Pulsed magnetron sputtering: the role of the applied power on tungsten coatings properties", *Recent advances in technology research and education*, Proceedings of the 16th International Conference on Global Research and Education Inter-Academia 2017, in the series: *Advances in Intelligent Systems and Computing*, vol. **660**, Springer (2018) 183-190
2. G. Popa, C. Costin, "Eveniment științific – A 32-a ediție a Conferinței Internaționale de Fenomene în Gaze Ionizate (ICPIG) – 25-31 iulie 2015, Universitatea „Alexandru Ioan Cuza” din Iași”, *Revista de politica științei și scientometrie – Serie nouă* **5**(1) (2016) 40 – 49
3. C. Costin, I. Topala, "Potentialul aplicativ al plasmei pentru viitorul omenirii", *Analele Colegiului „Costache Negruzzi” Iași*, Anul I, Seria I, Nr. 1 (2012) 225-231
4. Vasile Tiron, Claudiu Costin, Lucel Sirghi and Gheorghe Popa, "Reactive HIPIMS with auxiliary Al electrode for ZnO:Al thin film deposition", *IOP Conf. Series: Materials Science and Engineering* **39** (2012) 012010
5. C. Vitelaru, V. Pohoata, V. Tiron, C. Costin, G. Popa, "On both spatial and velocity distribution of sputtered particles in magnetron discharge", *Analele Universității de Vest din Timișoara, Seria Fizică* **LVI** (2012) 43-57
6. Marius Lucian Solomon, Ilarion Mihaila, Viorel Anita, Claudiu Costin, Gheorghe Popa, Hennie van der Meiden, Richard Al, Gerard van Rooij, Niek Lopes Cardozo, Jürgen Rapp, Codrina Ionita, Ronald Stärz, and Roman Schrittwieser, "Measurements of plasma diffusion coefficient in Pilot-PSI device using Katsumata probe", *Journal of Automation, Mobile Robotics & Intelligent Systems* **3**(4) (2009) 160-162
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