

Curriculum vitae

Informații personale

Nume / Prenume **COSTIN Claudiu**

Adresa Universitatea "Alexandru Ioan Cuza" din Iași, Facultatea de Fizică, Bd. Carol I nr. 11, 700506 Iași, ROMANIA

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Cetățenia Româna

Locul și Anul nașterii Iași, 1974

Titlu didactic **Conf.univ.dr.**

Titlu științific/Data obținerii/Instituția **Doctor în fizică / octombrie 2005 / co-tutelă între Universitatea Alexandru Ioan Cuza din Iași și Université Paris-Sud XI, Orsay, Franța**

Locul de muncă actual **Universitatea Alexandru Ioan Cuza din Iași, Facultatea de Fizică**

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Experiența profesională/Poziții didactice în învățământ/ Instituția și perioada

Conferențiar (2016-prezent)

Universitatea Alexandru Ioan Cuza din Iași, Facultatea de Fizică

Lector (2008-2016)

Cercetător post-doc (2006-2008)

Asistent (2000-2006)

Asistent asociat (1999-2000)

Preparator (1998-1999)

Universitatea de Medicină și Farmacie „Gr. T. Popa” Iași, Facultatea de Bioinginerie Medicală

Studii/Perioada Doctorat co-tutelă (1999-2005)

Univ Alexandru Ioan Cuza din Iași, Facultatea de Fizică

Doctorat co-tutelă (2001-2005)

Université Paris-Sud XI, Orsay, Franța

Studii Aprofundate Fizica Plasmei (1997-1999)

Universitatea Alexandru Ioan Cuza din Iași, Facultatea de Fizică

Facultatea de Fizică (1992-1997)

Universitatea Alexandru Ioan Cuza din Iași

Liceul (1988-1990 / 1990-1992)

Liceul D. Cantemir din Iași / Liceul C. Negruzzi din Iași

Colaborări și stagii științifice/Poziții în cercetare/ Instituția și perioada	Cercetător științific (Noi. 2018)	DIFFER - Dutch Institute for Fundamental Energy Research, Eindhoven, the Netherlands
	Cercetător invitat (Iunie 2016)	LPGP (Laboratoire de Physique des Gaz et des Plasmas), UMR 8578 CNRS-Université Paris-Sud XI, Orsay, Franța
	Profesor invitat (Dec. 2013)	Masaryk University, Brno, Czech Republic
	Profesor invitat (Noi. 2013)	F. Skorina Gomel State University, Gomel, Belarus Republic
	Cercetător științific (Aug. 2013)	Leopold-Franzens University of Innsbruck, Innsbruck, Austria
	Cercetător științific CNRS (CDD) (Iul-Aug 2008, Apr-Mai 2009 și Apr-Mai 2010), Cercetător post-doc (Iun 2012), Cercetător invitat (Iun 2016)	LPGP (Laboratoire de Physique des Gaz et des Plasmas), UMR 8578 CNRS-Université Paris-Sud XI, Orsay, Franța
	Cercetător științific (Oct 2006, Mai 2007, Oct 2008, Noie 2012 și Sep 2013)	FOM - Institutul de Fizica Plasmei "Rijnhuizen", DIFFER, Asociația EURATOM-FOM, Olanda
Cercetător științific (Noie 2005, Mai 2006, Aug-Sept 2010 și Noi 2017)	Institutul de Fizica Plasmei, Asociația EURATOM-IPP.CR, Praga, Cehia	

Limbi străine cunoscute

Autoevaluare
Nivel european (*)

Engleză
Franceză

Engleza, Franceza

Întelegere		Vorbire		Sciere
Ascultare	Citire	Participare la conversație	Discurs oral	Exprimare scrisă
B2	C2	B2	C1	C1
B2	C1	B2	B2	B2

(*) [Nivelul Cadrului European Comun de Referință Pentru Limbi Străine](#)

Competențe și aptitudini organizatorice

- Abilități de lucru în echipă și experiență de cercetare acumulată în programe/proiecte naționale/internaționale: 5 granturi ca director și membru în peste 15 granturi
- Secretar al Comitetului Local de Organizare al ICPIG 2015 și CPPA2019
- Membru în Comitetul de Management și lider al WG3 - 'Simulation of HIPP processes' în Acțiunea COST MP0804 *Highly Ionised Pulse Plasma Processes*, 2009 - 2013
- Co-chair al IWEP 2011
- Co-organizator al "Zilele Asociației EURATOM-MEdC", în 2005 și 2010
- Membru în Comitetul Local de Organizare la mai multe conferințe: CPPA 2003, CPPA 2005, InterAcademia 2006, CPPA 2010, CPPA 2013, InterAcademia 2017, CPPA2021
- Membru în Comitetul de Organizare al Școlii de vară "*Plasmas non thermitiques et applications*", August 25-29, 2003, Iași, România

Membru al asociațiilor profesionale

- Membru al Asociației EURATOM/MEdC Romania (2005-2014)
- Membru al Asociației „Societatea absolvenților Facultății de Fizică din Iași – SOPHYS”

Activitatea didactică

Cursuri predate/Seminarii/Laboratoare organizate:

Fizică generală – seminar și lucrări practice

Mecanică – seminar și lucrări practice

Biomecanică – curs și lucrări practice

Fizica și tehnica descărcărilor electrice în gaze – curs și lucrări practice

Tehnologia materialelor – curs și lucrări practice

Fizica plasmelor – curs, seminar și lucrări practice

Diagnoza plasmelor – lucrări practice

Probleme actuale ale fizicii plasmelor – curs și lucrări practice

Fizica plasmelor de temperaturi joase – curs și lucrări practice

Ecosistem – seminar și lucrări practice

Surse de plasmă. Aplicații - curs și lucrări practice

Fenomene de transport - curs și lucrări practice

Activitatea de cercetare științifică

a) Domenii de competență

Modelare numerică în fizica plasmelor: model de fluid pentru descărcarea magnetron DC și pentru descărcarea cu barieră dielectrică, PIC-MCC pentru descărcarea magnetron DC și pulsată (HiPIMS), metoda Monte Carlo Flux pentru funcția de distribuție a electronilor, metoda *a posteriori* Monte Carlo pentru studiul coeficienților de transport ai electronilor în descărcarea magnetron, model colizional radiativ

Diagnoza electrică și optică a plasmelor pentru plasmă de temperaturi joase și pentru plasmă de interes termionuclear: sonda simplă, sonda dublă, sonda emisivă, sisteme cu un număr mare de sonde, sonda ball-pen, sonda Katsumata, spectroscopie optică de emisie

b) Publicații: **30** articole ISI

8 articole non-ISI

c) Contracte de cercetare științifică: peste **20** (**5** ca director și peste **15** ca membru)

d) Citări ISI ale articolelor (excluzând autocitările): peste **375**

e) Participări la conferințe: peste **75** de contribuții la conferințe internaționale

f) Index Hirsch: **11**

g) Capitol de carte: T. Minea, T. Kozak, C. Costin, J. T. Gudmundsson, D. Lundin, capitolul "Modeling the high power impulse magnetron sputtering discharge", în cartea High Power Impulse Magnetron Sputtering, 1st Edition, Fundamentals, Technologies, Challenges and Applications, Editori: D. Lundin, J. T. Gudmundsson, T. Minea, Editura Elsevier, 2020

h) Co-Editor:

1. Editori: D. Luca, L. Sirghi, C. Costin, 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), ISBN 978-3-319-67458-2

2. Editori Invitați: C. Costin, G. Popa, Contributions to Plasma Physics, Volume 53, Number 1, 2013, ISSN 0863-1042, Special Issue: 9th International Workshop on Electrical Probes in Magnetized Plasmas, September 21-23, 2011, Romania

3. Editori: G. Popa, C. Costin, curs Ecole d'été "Plasmas non thermiques et applications", Editura Universității "Alexandru Ioan Cuza" din Iasi, 2003, Vol I + II, ISSN 1221-9363

e) ORCID: 0000-0003-3879-3555

Scopus Author ID: 9274825700

ResearcherID: C-3674-2011

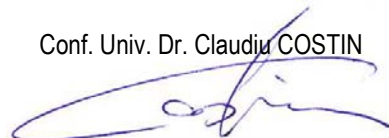
Competențe și aptitudini de utilizare a calculatorului Microsoft Office, Matlab, Origin, Programare numerică (Fortran)

Alte informații Premiul "Constantin Miculescu" acordat de Academia Română, 2016
Director al Departamentului de Cercetare, Facultatea de Fizică, Universitatea "Alexandru Ioan Cuza" din Iași (Oct 2016 - Dec 2017)
Lider de Sindicat al Facultății de Fizică, Universitatea "Alexandru Ioan Cuza" din Iași (Ian 2010 - Ian 2014)

Anexe Anexa 1 – lista publicațiilor științifice
Anexa 2 – lista participărilor la granturi de cercetare
Anexa 3 – lista contribuțiilor la conferințe

11 / 10 / 2021

Conf. Univ. Dr. Claudiu COSTIN



Anexa 1 – CV – Conf. univ. dr. Claudiu COSTIN

Lista publicațiilor științifice

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)
9. C. Lazarou, D. Koukounis, A. S. Chiper, C. Costin, I. Topala, G. E. Georghiou, "Numerical modeling of the effect of the level of nitrogen impurities in a helium parallel plate dielectric barrier discharge", *Plasma Sources Sci. Technol.* **24** (2015) 035012 (13 p)
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)
11. O. Antonin, V. Tiron, C. Costin, G. Popa, T.M. Minea, "On the HiPIMS benefits of multi-pulse operating mode", *J. Phys. D: Appl. Phys.* **48** (2015) 015202 (10 p)
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
18. M. L. Solomon, V. Anita, C. Costin, I. Mihaila, G. Popa, H. van der Meiden, R. Al, M. van de Pol, G. van Rooij, and J. Rapp, “Multi-Channel Analyzer Investigations of Ion Flux at the Target Surface in Pilot-PSI”, *Contributions to Plasma Physics* **50**(9) (2010) 898-902
19. C. Costin, T. M. Minea, G. Popa, and G. Gousset, “Plasma kinetics of Ar/O₂ magnetron discharge by 2D multi-fluid modeling”, *J. Vac. Sci. Technol. A* **28**(2) (2010) 322-328
20. V. Tiron, S. Dobrea, C. Costin, and G. Popa, “On the carbon and tungsten sputtering rate in a magnetron discharge”, *Nucl. Instrum. Meth. B* **267**(2) (2009) 434-437
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
22. J. Adamek, M. Kocan, R. Panek, J. P.Gunn, E. Martines, J. Stöckel, C. Ionita, G. Popa, C. Costin, J. Brotankova, R. Schrittwieser, and G. Van Oost, “Simultaneous Measurements of Ion Temperature by Segmented Tunnel and Katsumata Probe”, *Contributions to Plasma Physics* **48**(5-7) (2008) 395-399
23. C. Costin, T. M. Minea, G. Popa, and G. Gousset, “Fluid Modelling of DC Magnetrons - Low Pressure Extension and Experimental Validation”, *Plasma Process. & Polym.* **4**(S1) (2007) S960-S964
24. J. Brotankova, J. Adamek, J. Stockel, E. Martines, G. Popa, C. Costin, R. Schrittwieser, C. Ionita, G. van Oost, and L. van de Peppel, “A probe-based method for measuring the transport coefficient in the tokamak edge region”, *Czechoslovak Journal of Physics* **56** (2006) 1321–1328
25. R. Schrittwieser, C. Ionita, J. Adamek, J. Stockel, J. Brotankova, E. Martines, G. Popa, C. Costin, L. van de Peppel, and G. van Oost, “Direct measurements of the plasma potential by katsumata-type probes”, *Czechoslovak Journal of Physics* **56** (2006) Suppl.

B, B145–B150

26. C. Costin, G. Popa, and G. Gousset, “On the secondary electron emission in DC magnetron discharge”, *Journal of Optoelectronics and Advanced Materials* **7** (2005) 2465-2469
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
28. C. Costin, G. Gousset, and G. Popa, “Modélisation d’une décharge magnétron dc dans l’Argon par un modèle fluide“, *Le Vide* **304**(2/4) (2002) 308-315
29. I. Mihaila, G. Popa, V. Anita, C. Costin, L. Sirghi, and I. Turcu, “La fonction de distribution des électrons dans une décharge magnétron dans l’Argon avec une cible en Aluminium“, *Le Vide* **304**(2/4) (2002) 316-325
30. L. Sirghi, K. Ohe, C. Costin, and G. Popa, “Electron Kinetics in the Hot-Cathode Negative Glow of a Helium Discharge”, *Jpn. J. Appl. Phys.* **39** (2000) 1338-1342

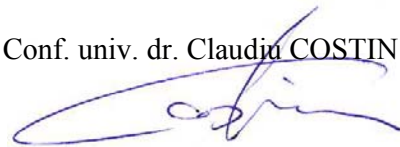
Articole științifice publicate *in extenso* în reviste necotate Web of Science fără factor de impact

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

7. I. Mihaila, V. Anita, C. Costin, L. Sirghi, G. Popa, I. Turcu, "Electron Distribution Function in Magnetron Discharge", *Romanian Reports in Physics* **54**(6-10) (2002) 301-308
8. C. Costin, L. Sirghi, G. Popa, "Monte Carlo Flux Method Used for a Radial Model of Plasma Positive Column", *Analele Științifice ale Universității "Al. I. Cuza" din Iași, Fizica Plasmei și Spectroscopie*, tom **XLVI** (2000) 119-122

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Anexa 2 – CV – Conf. univ. dr. Claudiu COSTIN

Lista participărilor la granturi de cercetare

Director de grant

5

Nr.	Grant	Valoare	Perioada
1	Grant Nr. 1EU-1/2 / 01.07.2016, din cadrul PNCDI III, Program 5 / Subprogram 5.2 / Modul 5.2.1 EURATOM-RO Fuziune, titlul "Participarea Romaniei la EUROfusion WPPFC si cercetari complementare", acronim PFC-RO, finantare ANCS si EURATOM	RON 1007252 (EUR 213911)	Iul 2016 - Dec 2021
2	Grant Nr. 1EU-1 / 05.06.2014, din cadrul Programului PN II, CAPACITATI, Modul III, EURATOM-RO, domeniul Fuziune, titlul "Participarea Romaniei la EUROfusion WPPFC si cercetari complementare", acronim WPPFC-RO, perioada 2014-2016, finantare ANCS si EURATOM	RON 403077 (EUR 89573)	Iun 2014 - Iun 2016
3	Grant de cooperare bilaterala Romania - Austria, nr. 550/2012, acronim SEPIF, din cadrul Programului PN II, CAPACITATI, Modulul III, parteneri Universitatea Alexandru Ioan Cuza din Iasi, Romania si Leopold-Franzens University of Innsbruck, Austria, titlul "Sonde electrice în plasmă de interes pentru fuziune"	RON 5497	Iun 2012 - Dec 2013
4	Grant de cooperare bilaterala Romania - Republica Belarus, AR-FRBCF-2012, cu finantare de la Academia Romana, Academia de Stiinte din Belarus si Fundatia Republicii Belarus pentru Cercetare Fundamentala, parteneri Universitatea Alexandru Ioan Cuza din Iasi, Romania si F. Skorina Gomel State University, Republica Belarus, titlul "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" / "Obținerea de straturi subțiri pe bază de ceramici oxidice și nitridice, metale, polimeri cu ajutorul plasmei și a metodei sol-gel pentru controlul proprietăților fizice și chimice"		Mai 2012 - Dec 2013
5	Grant Nr. 1EU-3 / 11.08.2008 din cadrul Programului PN II CAPACITATI, Modulul III, Aria tematica PC7-EURATOM-Fuziune, titlul "Proprietatile paturilor de sarcina spatiaala si fenomene asociate interactiunii perete-plasma magnetizata. Aplicatii la ITER", finantare ANCS si EURATOM	RON 979768 (EUR 229383)	Aug 2008 - Dec 2013

Membru în echipa grantului

15

Nr.	Grant	Valoare	Nr. membri
1	Grant E03 / 30.06.2014 din cadrul Programului PN II, CAPACITATI, Modul III, Program RO-CERN (ELI-NP; FAIR), titlul "Extreme Light Induced Ablation Plasma Jet And Nanopatterning", acronim ELIAN, director Conf. Dr. Silviu GURLUI (2014-2016)	RON 416,130	10
2	H2020-2014-MSCA-NIGHT, Grant No. 633311 (RoTalkScience), RESEARCHERS' NIGHT in ROMANIA. #doyouspeakscience, director Lect. Dr. Ionut Topala (2014)	EUR 34,499	19
3	FP7-PEOPLE-2013-NIGHT, Grant No. 609771 (RNR 2013), RESEARCHERS' NIGHT in ROMANIA 2013: Science. The great escape, director Lect. Dr. Ionut Topala (2013)	EUR 12,742	16
4	Grant PN-II-PT-PCCA-2011-3.2-1340, nr. 174/2012, titlul "Procedeu si instalatie pentru depunerea de straturi subtiri in regim de plasma pulsata cu grad ridicat de ionizare / Process and device for thin films deposition in highly ionized pulsed plasma", acronim PIDESS (2012-2016), director Prof. Dr. Gheorghe Popa / CS III Dr. Vasile Tiron	RON 1,388,000	6
5	Grant PN-II-ID-JRP-RO-FR-2012-0161: "SuN light Oxi-Nitrides for energy applications" (SNON), director Prof. Dr. Lucel Sirghi (2014-2016)	RON 949,500	7

6	COST Action MP0804, Highly Ionised Pulse Plasma Processes – HIPP Processes, director Dr. Ralf Bandorf (2009-2013)	EUR 258,103	160
7	FP7-EURATOM-FUSION 2007-7.1, FUSENET - The European Fusion Education Network, Grant No. 224982 (Oct 2008 – Sept 2012)	EUR 25,638	4
8	CEEX post-doct. Nr. 5918 / 18.09.2006 “Development of plasma diagnosis techniques and methods for transitory regime”, director Prof. Dr. Gheorghe POPA (Oct 2006 – Sept 2008)	RON 525,000	3
9	CEEX, Subgrant Nr. 1797/24.07.2006, type P-CD, module I, "Development and optimization of new plasma sources for surface diagnosis by laser ablation: studies and applications" PLASMADAIS, director Prof. Dr. Gheorghe POPA (2006-2008)	RON 150,000	6
10	Grant CNCSIS tip A, Nr.1422/2007, "Experimental studies and numerical simulations regarding the correlation of volume and surface plasma properties in mean-power pulsed magnetron discharges", director Prof. Dr. Gheorghe POPA (2007-2008)	RON 200,000	10
11	Grant CNCSIS Cod At 159: "Studiul mecanismului de formare a descarcarii secundare in sisteme DBD in pulsuri, la presiune atmosferica", director Prep. Dr. Alina Chiper (2007-2008)	RON 160,000	4
12	Grant nr. 10/2005 IFA-UAIC, Cod Proiect Complex: NUC-INT(FUS), Cod Subproiect: NUC-INT(FUS)/F6, acronim CORINT, titlul "Sheath properties and related phenomena of the plasma wall interaction in magnetised plasmas. Application to ITER", director Prof. Dr. Gheorghe POPA (2005-2007)	EUR 18,223 și RON 316,300	6
13	Platforma AMON, Cod CNCSIS 31: "Integrated Platform for Advanced Studies in Molecular Nanotechnologies" (AMON), Responsabil Prof. Dr. Alexandru Stancu (2005-2008)	RON 4,050,000	100
14	Grant CEEX nr. 22 / 3.10.2005, subcontract nr. 15098 / 3.10.2005; type P-CD, module I, "New ecological technologies based on plasmas obtained by ECED electrical discharges", RoEcoPlas, director Prof. Dr. Gheorghe POPA (2005-2008)	RON 284,000	8
15	Grant CNCSIS Cod A 1344: "Diagnoza prin metode si mijloace electrice si optice a plamei produse in gaze nobile si amestecuri de gaze", director Prof. Dr. Gheorghe Popa (2003-2005)	RON 60,000	6

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Anexa 3 – CV – Conf. univ. dr. Claudiu COSTIN

Lista contribuțiilor la conferințe 89

Conferințe internaționale 79

1. **C. Costin**, "Efficiency of the secondary electron emission in magnetized discharges", *19th International Conference on Plasma Physics and Applications*, CPPA 2021, August 31 – September 3, 2021, Magurele-Bucharest, Romania (invited lecture I-04).
2. V. Tiron, **C. Costin**, I.-L. Velicu, P. Dincă, E. Grigore, I. Burducea, "A new control strategy for optimizing the absorption/retention process of gases in W thin layers", *18th International Conference on Plasma-Facing Materials and Components for Fusion Applications (PFMC-18)*, 17-21 May 2021, Virtual Conference (poster presentation).
3. T. Minea, A. Revel, **C. Costin**, "Particle modelling of HIPIMS plasma", *18th International Conference on Plasma Physics and Applications*, CPPA 2019, June 20-22, 2019, Iasi, Romania (invited lecture I-07).
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11. **C. Costin**, V. Anita, I. Mihaila, V. Tiron, G. Popa, "Considerations on new developments achieved in electrical probe technique used for plasma diagnosis", *7th International Workshop & Summer School on Plasma Physics*, 26 June - 2 July 2016, Kiten, Bulgaria (invited talk)
12. A. Revel, **C. Costin**, T. Minea, "Particle Modelling of HIPIMS Magnetron Plasma", *4th Magnetron, Ion processing & Arc Technologies European Conference (MIATEC), 14th International Symposium on Reactive Sputter Deposition*, 8-11 December 2015, Paris, France (oral presentation O3.8-057)

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20. **C. Costin**, A. Demeter, L. Sirghi, "Monte Carlo simulation of surface etching with colloidal mask", *32nd International Conference on Phenomena in Ionized Gases (ICPIG)*, 26-31 July 2015, Iasi, Romania (poster P3.37)
21. T. Minea, A. Revel, D. Lundin, **C. Costin**, and N. Brenning, "0D, 2D and 3D Modeling of HiPIMS Plasma and Transport", *42nd International Conference on Metallurgical Coatings and Thin Films (ICMCTF)*, April 20-24, 2015, San Diego, California, USA (oral presentation)
22. V. Tiron, O. Vasilovici, M. Dobromir, V. Nica, **C. Costin** and L. Sirghi, "Tuning light absorption in nitrogen doped ZnO thin films deposited by reactive HiPIMS", 5th International Symposium on Transparent Conductive Materials, October 12 - 17, 2014, Platanias - Chania, Crete, Greece, (poster)
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29. T. Minea, A. Revel, **C. Costin**, L. Caillault, "2D PIC modelling of HIPIMS plasma. Application to spokes simulation by pseudo 3D-PIC", *537th WE-Heraeus-Seminar, Physics of ionized and Ion-Assisted PVD: Principle and Current Trends*, Helmholtz Zentrum Dresden Rosendorf : HZDR, June 26 – 28, 2013, Germany (poster)
30. A. V. Rogachev, D. L. Kovalenko, **C. Costin**, V. E. Gaishun, V. V. Vaskevich, D. Luca, "Synthesis by plasma chemical method of coatings from targets obtained by sol-gel method", *12th International Conference on Global Research and Education, inter-Academia 2013*, 23-27 September 2013, Sofia, Bulgaria (poster)
31. V. Vaskevich, V. Gaishun, D. Kovalenko, **C. Costin**, "Synthesis and study of silica sol-gel coatings for micro-and nanoelectronics", *IV Science International Conference "Nanosized systems: structure, properties, technology"*, Ukrainian National Academy of Science, 19-22 November 2013, Kiev, Ukraine (poster)
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34. C. Agheorghiesei, V. Anita, **C. Costin**, G. Popa, "Electrical probe characteristic reconstruction from single signal measurement", *16th International Conference on Plasma Physics and Applications (CPPA)*, Magurele-București, Romania, 20–25 June 2013 (poster)
35. **C. Costin**, V. Anita, C. Agheorghiesei, L. Sirghi, G. Popa, R. S. Al, G. De Temmerman, "Ion current mapping at the target of Pilot-PSI", *16th International Conference on Plasma Physics and Applications (CPPA)*, Magurele-București, Romania, 20–25 June 2013 (oral presentation)
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39. Jean Bretagne, Lise Caillault, **Claudiu Costin**, Ismael Guesmi and Tiberiu Minea, "On the energy deposition in magnetron discharges, from dcMS to IPVD and HiPIMS", *3rd International Conference*

- on *Fundamentals and Industrial Applications of HIPIMS*, 19-20 June 2012, Sheffield, UK (oral presentation)
40. M. L. Solomon, I. Mihaila, **C. Costin**, G. Popa, “On the particular behavior of current-voltage characteristic of electrical probes in magnetized plasma”, *9th International Workshop on Electrical Probes in Magnetized Plasmas (IWEPE 2011)*, 21-23 September 2011, Iasi, Romania (oral presentation)
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 47. M. L. Solomon, V. Anita, C. Costin, I. Mihaila, L. Sirghi, G. Popa, M. J. van de Pol, R. S. Al, G. J. van Rooij, J. Rapp, “2D distributions of current and floating potential at the target surface in Pilot-PSI”, *37th European Physical Society (EPS) Conference on Plasma Physics*, 21-25 June 2010, Dublin, Ireland (poster)
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