

Curriculum vitae

Informații personale

Nume / Prenume **COSTIN Claudiu**
Cetățenia Română
Locul și Anul nașterii Iași, 1974
Titlu didactic **Conferențiar universitar dr. habil.**
Certificare/Data obținerii/Instituția **Atestat de abilitare în fizică / susținere - decembrie 2021 / OM - mai 2022 / Universitatea Alexandru Ioan Cuza din Iași**
Titlu științific/Data obținerii/Instituția **Doctor în fizică / susținere - octombrie 2005 / OM - ianuarie 2006 / 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 (UAIC), 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, cu distincția <i>Magna Cum Laude</i>
Doctorat co-tutelă (2001-2005)	Université Paris-Sud XI, Orsay, Franța, cu mențiunea <i>très honorable</i>
Studii Aprofundate Fizica Plasmei (1997-1999)	Universitatea Alexandru Ioan Cuza din Iași, Facultatea de Fizică, media de absolvire 10
Facultatea de Fizică (1992-1997)	Universitatea Alexandru Ioan Cuza din Iași, media de absolvire 10
Liceul (1988-1990 / 1990-1992)	Liceul D. Cantemir din Iași / Liceul C. Negruzzi din Iași, media la bacalaureat 9,69

Colaborări și stagii științifice/Poziții în cercetare/ Instituția și perioada

Cercetător științific (Noi 2018)	DIFFER - Dutch Institute for Fundamental Energy Research, Eindhoven, the Netherlands
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, Noi 2012 și Sep 2013)	FOM - Institutul de Fizica Plasmei "Rijnhuizen", Asociația EURATOM-FOM, Nieuwegein, Olanda
Cercetător științific (Noi 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

Înțelegere		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](#)

Realizări semnificative în planul activității profesionale

Activitatea didactică

a) Cursuri predate / Seminarii și laboratoare organizate:

Fizică generală – seminar și lucrări practice (licență)
 Mecanică – seminar și lucrări practice (licență)
 Biomecanică – curs și lucrări practice (master)
 Fizica și tehnica descărcărilor electrice în gaze – curs și lucrări practice (licență)
 Tehnologia materialelor – curs și lucrări practice (licență)
 Fizica plasmei – curs, seminar și lucrări practice (licență)
 Diagnoza plasmei – lucrări practice (master)
 Probleme actuale ale fizicii plasmei – curs și lucrări practice (master)
 Fizica plasmelor de temperaturi joase – curs și lucrări practice (master)
 Ecosistem – seminar și lucrări practice (master)
 Surse de plasmă. Aplicații - curs și lucrări practice (master)
 Fenomene de transfer - curs și lucrări practice (master)
 Elemente de fizica plasmei. Aplicații biomedicale - curs și lucrări practice (licență)
 Proiectarea algoritmilor - curs și lucrări practice (master)
 Metodologia cercetării științifice – curs (școala doctorală)

b) Coordonare lucrări de licență și disertație: - peste 20 lucrări de licență
 - peste 25 lucrări de disertație

c) Comisii de îndrumare studii doctorale: - 8

d) Îndrumar de lucrări practice: L. Sîrghi, C. Costin și A. S. Chipser, "Fizica și tehnica vidului. Lucrări de laborator", Editura Universității "Alexandru Ioan Cuza" din Iași, 2024, ISBN 978-606-714-905-0

Activitatea de cercetare științifică

a) Domenii de competență:

Modelare numerică în fizica plasmei: 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 plasmei 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: 36 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 autocitățile): peste 560

e) Participări la conferințe: peste 80 de contribuții la conferințe internaționale

f) Indice Hirsch: 12

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 Iași, 2003, Vol I + II, ISSN 1221-9363

e) ORCID: 0000-0003-3879-3555

Scopus Author ID: 9274825700

ResearcherID: C-3674-2011

Realizări semnificative în planul activității manageriale

Poziții manageriale

- Director a 5 granturi de cercetare însumând un total de 2.395.594 RON (echivalent a 534.000 EUR)

- 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)

- Membru în Comitetul de Management și Lider al Work Group 3 - 'Simulation of HIPP processes' în Acțiunea COST MP0804 *Highly Ionised Pulse Plasma Processes*, 2009 - 2013

Poziții de reprezentare	<ul style="list-style-type: none"> - Membru al Senatului UAIC (2012-2016) - Membru al Comisiei de Etică a UAIC (2015-2016) - Membru al Consiliului Facultății de Fizică (2008-prezent) - Membru al Comisiei de Etică a Facultății de Fizică (2020-prezent) - Membru al Consiliului Școlii Doctorale de Fizică (2022-prezent)
Alte informații	
Recunoaștere internațională	<ul style="list-style-type: none"> - Membru al Comitetului Științific Internațional al conferinței PLATHINIUM (Plasma Thin film International Union Meeting), începând cu 2019 - Membru al Comitetului Științific Internațional al conferinței ESCAMPIG, începând cu 2023 - referent științific al unor jurnale internaționale de prestigiu, cotate ISI: Contributions to Plasma Physics, Plasma Physics and Controlled Fusion, Coatings, Surface and Coatings Technology, Review of Scientific Instruments, Journal of Applied Physics, Scientific Reports, Physica Scripta
Premii	Premiul "Constantin Miculescu" acordat de Academia Română, 2016
Membru în comitete de organizare	<ul style="list-style-type: none"> - Secretar al Comitetului Local de Organizare al conferințelor ICPIG 2015 și CPPA 2019 - Co-chair al workshop-ului IWEPI 2011 - Co-organizator al evenimentului "Zilele Asociației EURATOM-MedC", în 2005 și 2010 - Membru în Comitetul Local de Organizare al conferințelor: CPPA 2003, CPPA 2005, InterAcademia 2006, CPPA 2010, CPPA 2013, InterAcademia 2017, CPPA2021, CPPA2023 - Membru în Comitetul de Organizare al Școlii de vară "<i>Plasmas non thermiques et applications</i>", August 25-29, 2003, Iași, România
Membru al asociațiilor profesionale	<ul style="list-style-type: none"> - Membru al Asociației EURATOM/MedC Romania (2005-2014) - Membru al Asociației „Societatea absolvenților Facultății de Fizică din Iași – SOPHYS”
Competențe și aptitudini de utilizare a calculatorului	Microsoft Office, Origin, SciDAVis, Programare numerică (Fortran, C++), Microsoft Teams, Cisco Webex, Zoom, Moodle
Anexe	<ul style="list-style-type: none"> - Lista contribuțiilor la conferințe naționale și internaționale - Lista participărilor la granturi de cercetare

Data: 17/12/2024

Conf. univ. dr. habil. Claudiu COSTIN

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

Lista contribuțiilor la conferințe 96

Conferințe internaționale 84

1. **C. Costin**, I. Mihaila, H. van der Meiden, H. Tanaka, J. Scholten, H. van Eck, "Plasma flow investigation in a linear magnetized facility by cross-correlation analysis", *20th International Conference on Plasma Physics and Applications, CPPA 2023*, 14-16 June, 2023, Iasi, Romania (oral presentation O-11)
2. **C. Costin**, T. Minea, "Analytical model of the plasma potential in a magnetron discharge", *20th International Conference on Plasma Physics and Applications, CPPA 2023*, 14-16 June, 2023, Iasi, Romania (poster P1-2)
3. **C. Costin**, T. M. Minea, "Secondary electron emission in magnetized plasmas", *Europhysics Conference on Atomic and Molecular Physics of Ionized Gases - ESCAMPIG XXV*, 19-23 July 2022, Paris, France (Topical invited lecture T6), Conference Proceedings (e-print), Pages 198-201.
4. **C. Costin**, "Magnetic field impact on the secondary electron emission", *The 8th International Symposium toward the Future of Advanced Researches in Shizuoka University (ISFAR-SU 2022)*, 1st March 2022, on-line event, Shizuoka University, Japan (invited talk T3), Conference Proceedings (e-print), Pages 13-14
5. **C. Costin**, "Velocity distribution functions at plasma boundary", *19th International Conference on Global Research and Education, Inter-Academia 2021*, 20-22 October, 2021, Gomel, Belarus (on-line conference, oral presentation R72), Conference Proceedings (e-print), Pages 161-163
6. **C. Costin**, "Efficiency of the secondary electron emission in magnetized discharges", *19th International Conference on Plasma Physics and Applications, CPPA 2021*, 31 August –3 September, 2021, Magurele-Bucharest, Romania (invited lecture I-04)
7. 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)
8. T. Minea, A. Revel, **C. Costin**, "Particle modelling of HIPIMS plasma", *18th International Conference on Plasma Physics and Applications, CPPA 2019*, 20-22 June, 2019, Iasi, Romania (invited lecture I-07)
9. **C. Costin**, I. Mihaila, H. van der Meiden, V. Anita, S. Brons, J. M. W. Vernimmen, J. Scholten, "Magnum-PSI plasma parameters mapping by electrical probes", *18th International Conference on Plasma Physics and Applications, CPPA 2019*, 20-22 June, 2019, Iasi, Romania (oral presentation O-16)
10. P. Dinca, V. Tiron, I. Mihaila, I.-L. Velicu, C. Porosnicu, B. Butoi, A. Velea, E. Grigore, **C. Costin**, C.P. Lungu, "Dual-HiPIMS system as source of fusion related W-Al composite layers having helium and deuterium inclusions", *The 9th International Conference on HiPIMS*, 25-28 June, 2018, Sheffield, UK (poster presentation)
11. I.-L. Velicu, V. Tiron, I. Mihaila, **C. Costin**, "Pulsed magnetron sputtering: the role of the applied power on tungsten coatings properties", *16th International Conference on Global Research and Education, Inter-Academia 2017*, 25-28 September, 2017, Iasi, Romania (poster P.09)
12. **C. Costin**, A. Demeter, V. Tiron, L. Sirghi, "Simulation of magnetron sputtering deposition of titanium nanopatterns on substrates with colloidal masks", *17th International Conference on Plasma Physics and Applications, CPPA 2017*, 15-20 June, 2017, Magurele-Bucharest, Romania (poster P1.02)
13. V. Tiron, **C. Costin**, I. Mihaila, G. Popa, "Ion energy distribution function measurements during high power impulse magnetron sputtering of W and Al targets in Ar-He and Ar-D₂ gas mixtures", *17th International Conference on Plasma Physics and Applications, CPPA 2017*, 15-20 June, 2017, Magurele-Bucharest, Romania (poster P7.07)
14. **C. Costin**, V. Anita, G. Popa, J. Scholten, G. De Temmerman, "Advances in probe diagnostics for linear plasma generators", *TIM 17 Physics Conference*, 25-27 May, 2017, Timisoara, Romania (invited lecture)
15. T. Minea, A. Revel, S. Mochalsky, S. Tsikata, **C. Costin**, "Plasma structuring and drift instabilities in magnetized plasmas", *43rd European Physical Society Conference on Plasma Physics*, 4-8 July 2016, Leuven, Belgium (invited talk I4.312)

16. **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)
17. 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)
18. A. Demeter, F. Samoila, V. Tiron, **C. Costin**, L. Sirghi, "TiO₂ nano-patterns obtained by reactive high power magnetron sputtering and colloidal lithography", *4th Magnetron, Ion processing & Arc Technologies European Conference (MIATEC), 14th International Symposium on Reactive Sputter Deposition*, 8-11 December 2015, Paris, France (poster P3.03-013)
19. M. Rudolph, I. Mihaila, V. Tiron, L. Sirghi, **C. Costin**, M.-C. Hugon, B. Bouchet-Fabre, T. Minea, "Time-resolved mass spectrometric study of an oxygen-nitrogen reactive gas mixture in a high-power impulse magnetron sputtering discharge using a Ta target", *4th Magnetron, Ion processing & Arc Technologies European Conference (MIATEC), 14th International Symposium on Reactive Sputter Deposition*, 8-11 December 2015, Paris, France (poster P2.02-067)
20. M. Rudolph, T. Degousée, T. Minea, V. Tiron, **C. Costin**, L. Sirghi, M.-C. Hugon, B. Bouchet-Fabre, "Measuring the ionized flux fraction from high-power impulse magnetron discharges using a miniaturized passive ion energy spectrometer", *32nd International Conference on Phenomena in Ionized Gases (ICPIG)*, 26-31 July 2015, Iasi, Romania (poster P1.28)
21. **C. Costin**, V. Anita, G. Popa, "Consistent method for registration of the electrical probe characteristic", *32nd International Conference on Phenomena in Ionized Gases (ICPIG)*, 26-31 July 2015, Iasi, Romania (poster P1.40)
22. **C. Costin**, V. Anita, G. Popa, G. De Temmerman, "Current distribution at the target of Magnum-PST", *32nd International Conference on Phenomena in Ionized Gases (ICPIG)*, 26-31 July 2015, Iasi, Romania (poster P2.26)
23. Adrien Revel, Sedina Tsikata, **Claudiu Costin**, and Tiberiu M. Minea, "Links between magnetron plasma spokes and short-scale electron density fluctuations: insights from pseudo 3D particle modelling and coherent Thompson", *32nd International Conference on Phenomena in Ionized Gases (ICPIG)*, 26-31 July 2015, Iasi, Romania (poster P2.34)
24. V. Tiron, I.-L. Velicu, O. Vasilovici, M. Dobromir, **C. Costin**, G. Popa, C. Porosnicu, I. Jepu, P. Dinca, C. P. Lungu, M. Straticiu, I. Burducea, "HiPIMS technique used for fusion related mixed materials", *32nd International Conference on Phenomena in Ionized Gases (ICPIG)*, 26-31 July 2015, Iasi, Romania (poster P2.43)
25. **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)
26. 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)*, 20-24 April, 2015, San Diego, California, USA (oral presentation)
27. 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*, 12 - 17 October, 2014, Platanias - Chania, Crete, Greece, (poster)
28. T. Minea, A. Revel, **C. Costin**, L. Caillault, O. Antonin, V. Tiron, "Multiple short pulse modelling in HiPIMS regime", *PSE 2014: 14th International Conference on Plasma Surface Engineering*, 15-19 September, 2014, Garmisch-Partenkirchen, Germany (oral presentation)
29. T. Minea, O. Antonin, L. Caillault, **C. Costin**, D. Lundin, A. Revel, V. Tiron, C. Vitelaru, "Magnetron versus HiPIMS: sputtered particle transport and deposition rate", *GD Day & IAP 2014 joint meeting: Glow Discharge Day & 2nd Interacademic Attraction Pole Workshop on 'Plasma Diagnostics'*, 10-11 June, 2014, Reims, France (oral presentation)
30. O. Antonin, V. Tiron, **C. Costin** and T.M. Minea, "On the HiPIMS benefits of multi-pulse operating mode", *5th International Conference on Fundamentals and Industrial Applications of HIPIMS*, 30 June - 3 July 2014, Sheffield, UK (oral presentation)

31. Vasile Tiron, Ovidiu Vasilovici, Ioana-Laura Velicu, Valentin Nica, **Claudiu Costin**, Gheorghe Popa, "Multi-pulse reactive HiPIMS advantages for TiO₂ deposition", *Europhysics Conference on Atomic and Molecular Physics of Ionized Gases - ESCAMPIG XXII*, 15-19 July, 2014, Greifswald, Germany (poster)
32. Tiron, V., Nastuta, A. V., Irimiciuc, S., **Costin, C.**, Popa, G., Ionita, C., Schrittwieser, R., Dynamics of high power impulse hollow cathode discharge, *41st European Physical Society Conference on Plasma Physics 2014, EPS 2014 - Europhysics Conference Abstracts*, Volume 38F, 2014, P2.141 (4 Pages), ISBN 2-914771-90-8, 23-27 June, 2014, Berlin, Germany (poster)
33. A. Revel, **C. Costin**, T. M. Minea, "Non-uniform mesh modelling of very high density magnetron discharges. Comparison between DC and HiPIMS regimes", IVC-19/ICN+T 2013 / ICSS-15/ITFPC 2013 / MIATEC 2013 / CIP 2013 / RSD 2013, 9 – 13 September, 2013, Paris, France (oral presentation)
34. 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*, 26 – 28 June, 2013, Germany (poster)
35. 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)
36. 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)
37. Vasile Tiron, Ioana-Laura Velicu, **Claudiu Costin** and Gheorghe Popa, "Dynamics of the fast - HiPIMS discharge during FINEMET – type films deposition", *4th International Conference on Fundamentals and Industrial Applications of HIPIMS 2013*, 10-13 June 2013, Braunschweig, Germany (oral presentation)
38. **C. Costin**, T. M. Minea, G. Popa, "Charge transport in magnetrons", *31st International Conference on Phenomena in Ionized Gases (ICPIG)*, 14-19 July 2013, Granada, Spain (invited topical lecture)
39. 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)
40. **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)
41. L. Sirghi, **C. Costin**, V. Anita, G. Popa, M. van de Pol, R. S. Al, and G. De Temmerman, "Double probe at a floating target surface in magnetized plasma column of Pilot-PSI device", *16th International Conference on Plasma Physics and Applications (CPPA)*, Magurele-București, Romania, 20–25 June 2013 (poster)
42. I. Mihaila, S. Costea, **C. Costin**, G. Popa, "On Negative Slope of Probe Characteristics in Magnetized Plasmas", *10th International Workshop on Electrical Probes in Magnetized Plasmas (IWEPP 2013)*, 9-12 July 2013, Madrid, Spain (oral presentation)
43. **Claudiu Costin**, Tiberiu Minea, "PIC-MCC simulations on high power pulse magnetron discharge", *14th International Conference on Plasma Surface Engineering*, 10-14 September 2012, Garmisch-Partenkirchen, Germany (poster)
44. 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)
45. 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 (IWEPP 2011)*, 21-23 September 2011, Iasi, Romania (oral presentation)
46. **C. Costin**, V. Anita, M. L. Solomon, L. Sirghi, G. Popa, M. van de Pol, R. S. Al, J. Rapp, "Cross-correlation signal analysis of a multi-probe system acting as target in Pilot-PSI", *9th International Workshop on Electrical Probes in Magnetized Plasmas (IWEPP 2011)*, 21-23 September 2011, Iasi, Romania (oral presentation)

47. L. Sirghi, **C. Costin**, V. Anita, M. L. Solomon, G. Popa, M. van de Pol, R. S. Al, J. Rapp, “Turbulence of magnetized plasma column at a floating and current-driving target surface in Pilot-PSI”, *30th International Conference on Phenomena in Ionized Gases (ICPIG)*, 28 August – 2 September 2011, Belfast, Northern Ireland (poster)
48. T. Minea, L. Caillault, A. Lifschitz, J. Bretagne, **C. Costin**, “Electron transport in magnetron discharges”, *63rd GEC and 7th ICRP joint conference*, 4-8 October 2010, Paris, France (oral presentation)
49. Tiberiu Minea, Lise Caillault, Agustin Lifschitz, Jean Bretagne, **Claudiu Costin**, „Electron Transport in Magnetron Discharges”, *63rd Annual Gaseous Electronics Conference and 7th International Conference on Reactive Plasmas*, 4-8 October, 2010, Paris, France (oral presentation) Abstract MR2.00001 in *Bulletin of the American Physical Society* Vol. 55, Nr. 7
50. T. Minea, L. Caillault, **C. Costin**, O. Msieh, C. Vitelaru, “Magnetrons: from plasma modelling to nanostructured thin films”, *15th International Conference on Plasma Physics and Applications (CPPA)*, Iasi, Romania, 1–4 July 2010 (invited lecture IL03)
51. M. L. Solomon, V. Anita, **C. Costin**, I. Mihaila, L. Sirghi, G. Popa, M. J. van de Pol, G. J. van Rooij, J. Rapp, “Current and floating potential distributions measured by a multi-probe system at the end plate surface in Pilot-PSI”, *15th International Conference on Plasma Physics and Applications (CPPA)*, Iasi, Romania, 1–4 July 2010 (poster P6-07)
52. 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)
53. **C. Costin**, T. M. Minea, G. Popa and G. Gousset, „2D multi-fluid description of oxygen species in an Ar/O₂ magnetron discharge”, *International Symposium on Reactive Sputter Deposition*, 10-11 December 2009, Manchester, UK (oral presentation)
54. 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”, *8th International Workshop on Electric Probes in Magnetized Plasmas*, 21–24 September 2009, Innsbruck, Austria (oral presentation)
55. L. Caillault, **C. Costin**, G. Popa, T. Minea, “Modèle fluide d'un plasma magnétisé à basses pressions : application au magnétron”, *X^e Congres de la Division Plasmas de la Société Française de Physique*, 19 - 21 May 2008, Paris, France (oral presentation)
56. V. Tiron, **C. Costin**, and G. Popa, “Target sputtering and optical emission measurements correlated with numerical modeling in a magnetron discharge”, *3rd International Workshop and Summer School on Plasma Physics*, 30 June - 5 July 2008, Kiten, Bulgaria, p 23 (oral presentation)
57. V. Tiron, **C. Costin**, and G. Popa, “Study of target-poisoning mechanisms and reactive phenomena in a magnetron discharge”, *9th International Balkan Workshop on Applied Physics*, Constanta, Romania, 7-9 July 2008 (poster)
58. A. S. Chipper, **C. Costin**, C. Grecea, and G. Popa, “Glow mode barrier discharge investigation by absorption and ICCD imaging”, *9th International Balkan Workshop on Applied Physics*, 7-9 July 2008, Constanta, Romania, (invited lecture)
59. I. Mihaila, **C. Costin**, M. L. Solomon, G. Popa, C. Ionita, R. Stărz, R. Schrittwieser, J. Rapp, N. J. Lopes-Cardozo, H. J. van der Meiden, and G. J. van Rooij, “Probe investigations of the Pilot-PSI plasma”, *35th European Physical Society (EPS) Conference on Plasma Physics*, Hersonissos, Crete, Greece, 9-13 June 2008 (poster)
60. M. L. Solomon, R. S. Al, V. Anita, **C. Costin**, B. de Groot, W. Goedheer, A. W. Kleyn, W. R. Koppers, N. J. Lopes Cardozo, H. J. van der Meiden, R. J. E. van de Peppel, R. P. Prins, G. J. van Rooij, A. E. Shumack, W. A. J. Vijvers, J. Westerhout, and G. Popa, “On the self excited instabilities in the plasma column of Pilot-PSI”, *14th International Conference on Plasma Physics and Applications (CPPA)*, Brasov, Romania, 14–18 September 2007 (invited paper)
61. M. Solomon, V. Titon, **C. Costin**, C. Andrei and G. Popa, “Diagnostics of high density magnetised plasmas by self emissive probe”, *14th International Conference on Plasma Physics and Applications (CPPA)*, Brasov, Romania, 14–18 September 2007 (poster)

62. J. Adamek, M. Kocan, R. Panek, J. P.Gunn, J. Stöckel, E. Martines, R. Schrittwieser, C. Ionita, G. Popa, **C. Costin**, J. Brotankova, G. Van Oost, and L. van de Peppel, “Comparison of Ion Temperature Measurements by Katsumata and Segmented Tunnel Probes”, *7th International Workshop on Electrical Probes in Magnetized Plasmas*, Prague, Czech Republic, 22-25 July 2007 (poster)
63. J. Brotankova, E. Martines, J. Adamek, J. Stockel, G. Popa, **C. Costin**, R. Schrittwieser, C. Ionita, and G. Van Oost, “Novel technique for direct measurement of the plasma diffusion coefficient in magnetised plasma”, *7th International Workshop on Electrical Probes in Magnetized Plasmas*, Prague, Czech Republic, 22-25 July 2007 (poster)
64. V. Tiron, C. Vitelaru, **C. Costin**, and G. Popa, “Spatial characterization of Ar-Ti plasma in a reactive magnetron system using emission spectroscopy”, *XXVIIIth ICPIG, International Conference On Phenomena in Ionized Gases*, Prague, Czech Republic, 15-20 July 2007 (poster)
65. **C. Costin**, V. Anita, R. S. Al, B. de Groot, W. Goedheer, A. W. Kleyn, W. R. Koppers, N. J. Lopes Cardozo, H. J. van der Meiden, R. J. E. van de Peppel, R. P. Prins, G. J. van Rooij, A. E. Shumack, M. L. Solomon, W. A. J. Vijvers, J. Westerhout, and G. Popa, “On the power balance at the end plate of the plasma column in Pilot-PSI”, *34th European Physical Society (EPS) Conference on Plasma Physics*, Warsaw, Poland, 2-6 July 2007 (poster)
66. **C. Costin**, T. M. Minea, G. Popa, and G. Gousset, “2D multi-fluid model for an Ar/O₂ reactive magnetron”, *Inter-Academia for Young Researchers Workshop 2007 (IAY-2007)*, Shizuoka, Japan, 7-9 February 2007 (oral presentation)
67. **C. Costin**, J.B. Choimet, T. Minea, “Modélisation fluide des plasmas magnétron. Effet des paramètres numériques”, *IX^e Congrès de la Division Plasmas de la Société Française de Physique*, Abbaye des Prémontrés, Pont-à-Mousson Nancy, 2-5 May 2006, France (oral presentation)
68. V. Tiron, C. Vitelaru, **C. Costin**, G. Popa, and F. Tufescu, “Correlation between Emission Spectra, Mass Spectrometry and Surface Processes in Ar/N₂ Reactive Magnetron Discharge with Titanium Target”, *2nd International Congress on Radiation Physics, High Current Electronics and Modification of Materials*, 10-15 September 2006, Tomsk, Russia (poster)
69. V. Tiron, C. Vitelaru, **C. Costin**, and G. Popa, “Electrical and optical diagnostics of pulsed Ar/N₂ reactive magnetron”, *5th Annual International Conference on Global Research and Education - InterAcademia*, 25-28 September 2006, Iasi, Romania, Proceedings, Vol II, p. 641 (poster)
70. **C. Costin**, T. M. Minea, G. Popa, and G. Gousset, “Fluid modelling of DC magnetrons - low pressure extension and experimental validation”, *PSE 2006 - 10th International Conference on Plasma Surface Engineering*, 10-15 September 2006, Garmisch, Partenkirchen, Germany (oral presentation)
71. **C. Costin**, L. Grigoras, and G. Popa, “Multi-channel analyzer and perpendicular ion energy distribution in magnetised plasma”, *33rd European Physical Society (EPS) Conference on Plasma Physics*, 19-23 June 2006, Rome, Italy, Europhysics Conference Abstracts, vol. 30 I, P4.176 (poster)
72. J. Brotankova, E. Martines, J. Adamek, J. Stockel, G. Popa, and **C. Costin**, “A new-probe based method for measuring the diffusion coefficient in the tokamak edge region”, *33rd European Physical Society (EPS) Conference on Plasma Physics*, 19-23 June 2006, Rome, Italy, Europhysics Conference Abstracts, vol. 30 I, P2.195 (poster)
73. R. Schrittwieser, J. Adamek, C. Ionita, J. Stockel, E. Martines, J. Brotankova, **C. Costin**, G. Popa, G. van Oost, and L. van de Peppel, “Direct measurements of the plasma potential by Katsumata-type probes”, *33rd European Physical Society (EPS) Conference on Plasma Physics*, 19-23 June 2006, Rome, Italy, Europhysics Conference Abstracts, vol. 30 I, P4.196 (poster)
74. J. Adamek, J. Stockel, R. Panek, M. Kokan, E. Martines, R. Schrittwieser, C. Ionita, G. Popa, **C. Costin**, J. Brotankova, G. van Oost, and L. van de Peppel, “Simultaneous measurements of the parallel and perpendicular ion temperature by

Katsumata and segmented tunnel probe”, *9th Workshop on the Electric Fields, Structures and Relaxation in Edge Plasma*, 26-27 June 2006, Rome, Italy (oral presentation)

75. J. Brotankova, E. Martinez, J. Adamek, J. Stockel, G. Popa, **C. Costin**, R. Schrittwieser, C. Ionita, and G. van Oost, “A probe-based method for measuring the transport coefficient in the tokamak edge region”, *9th Workshop on the Electric Fields, Structures and Relaxation in Edge Plasma*, 26-27 June 2006, Rome, Italy (oral presentation)
76. **C. Costin**, J. B. Choimet, and T. Minea, “Modélisation Fluide Des Plasmas Magnétron. Effet Des Paramètres Numériques”, *IXe Congres de la Division Plasmas de la Societe Francaise de Physique*, Abbaye des Prémontrés, Pont-à-Mousson Nancy, France, 2-5 mai 2006 (poster)
77. S. Chiper, **C. Costin**, V. Pohoata, C. Agheorghiesei, and G. Popa, “On increasing time of the peak current for a glow mode barrier discharge”, *XXVIIth ICPIG, International Conference On Phenomena in Ionized Gases*, 18-22 July 2005, Eindhoven, The Netherlands (poster)
78. **C. Costin**, G. Popa, and G. Gousset, “On the secondary electron emission in a DC magnetron discharge”, *XVIIth ESCAMPIG*, 1-5 September 2004, Constanta, Romania and *3rd Annual International Conference on Global Research and Education - InterAcademia 2004*, 6-9 September 2004, Budapest, Hungary (poster)
79. **C. Costin**, L. Marques, G. Popa, and G. Gousset, *12^e Colloque Jeunes Chercheurs, Colloque Alain BOUYSSY*, 26-27 February 2004, Orsay, France (poster)
80. **C. Costin**, G. Gousset, L. Marques, and G. Popa, “DC magnetron discharge fluid model using a new numerical scheme”, *XXVIth ICPIG, International Conference On Phenomena in Ionized Gases*, 15-20 July 2003, Greifswald, Germany (poster)
81. G. Amarandei, **C. Costin**, and D. Dorohoi, “Computer simulation upon the interference field in Fraunhofer diffraction”, *12th General Conference of European Physical Society, EPS 12 Trends in Physics*, 26-30 August 2002, Budapest, Hungary (poster)
82. **C. Costin**, G. Gousset, and G. Popa, “Modélisation d’une décharge magnétron dc dans l’Argon par un modèle fluide“, *Deuxièmes journées d’Etude sur les Nouvelles Tendances en Procédés Magnétron et Arc pour le Dépôt de Couches Minces*, 15-16 November 2001, Université Paris-Sud XI, Orsay, France (poster)
83. 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“, *Deuxièmes journées d’Etude sur les Nouvelles Tendances en Procédés Magnétron et Arc pour le Dépôt de Couches Minces*, 15-16 November 2001, Université Paris-Sud XI, Orsay, France (poster)
84. L. Sirghi, **C. Costin**, and G. Popa, “Monte Carlo simulation of electron kinetics in negative glow plasma of a thermionic cathode discharge in helium”, *XXIVth ICPIG, International Conference On Phenomena in Ionized Gases*, 11-16 July 1999, Warsaw, Poland (poster)

Conferințe naționale

12

1. Igor Bondari, Petr Dohnal, Serhiy Rednyk, Štěpán Roučka, Lilia Uvarova, Octavio Emmanuel Hernández Alvarez, **Claudiu Costin**, “Studiul ratelor de reacție ale ionilor dintr-o plasmă relevantă pentru chimia interstelară”, *Conferința științifică studentască Fundamental and Applied Research in Physics, FARPHYS 2024*, 26 octombrie 2024, Iasi, Romania (prezentare orală)
2. Victorio Moraru, **Claudiu Costin**, “Simularea procesului de obținere de depuneri nanostructurate utilizând o mască coloidală”, *A LI-a Conferinta Nationala Fizica si Tehnologiile Educationale Moderne*, 14 mai 2022, Iasi, Romania (prezentare orală O9)
3. Raisa Ioana Biega, **Claudiu Costin**, Lucel Sirghi, “Simularea 3D a procesului de depunere a straturilor subțiri cu masca coloidală”, *A XLIV-a Conferinta Nationala Fizica si Tehnologiile Educationale Moderne*, 16 mai 2015, Iasi, Romania (prezentare orală CS-O4)
4. O. Vasilovici, V. Tiron, **C. Costin**, L. Sirghi, “Tuning the band gap energy of ZnO:N thin films obtained by HiPIMS technique”, *A XLIV-a Conferinta Nationala Fizica si Tehnologiile Educationale Moderne*, 16 mai 2015, Iasi, Romania (poster CS-P12)

5. F. Ghiorghiu, **C. Costin**, V. Anita, G. de Temmerman, "Potential measurements at the target of Magnum-PSI", *A XLII-a Conferinta Nationala Fizica si Tehnologiile Educationale Moderne*, 26 Octombrie 2013, Iasi, Romania (poster)
6. Stefan Costea, **Claudiu Costin**, Tiberiu M. Minea, "Caracterizarea numerică a influenței câmpului magnetic asupra caracteristicii de sondă cilindrică într-o plasmă magnetizată", *A XLI-a Conferinta Nationala Fizica si Tehnologiile Educationale Moderne*, 19 mai 2012, Iasi, Romania (poster)
7. V. Tiron, J. Faustin, **C. Costin**, G. Popa, M. Ganciu, "Fast imaging investigations on pulsed magnetron discharge", *Conferinta Nationala de Fizica*, 23-25 septembrie 2010, Iasi, Romania (poster)
8. **C. Costin**, T. M. Minea, G. Popa, and G. Gousset, "Fluid model of the heavy particles distribution in an Ar/O₂ DC magnetron discharge", *XIIIth Conference on Plasma Physics and Applications*, 26-29 October 2005, Iasi, Romania (poster)
9. **C. Costin**, G. Gousset, L. Marques, and G. Popa, "Corrected Classical Drift-Diffusion Fluxes in a Fluid Model For a Magnetised Plasma", *XIIth Conference on Plasma Physics and Applications*, 1-3 September 2003, Iasi, Romania (prezentare orală)
10. **C. Costin**, G. Gousset, and G. Popa, "Modelling of an Argon DC Magnetron Discharge using the Fluid Model", *XIth Conference on Plasma Physics and Applications*, 6-8 September 2001, Constanta, Romania (poster)
11. **C. Costin**, G. Popa, and L. Sirghi, "Electron distribution function in plasmas of reactive gas mixtures", *Conferinta Nationala de Fizica*, 21-23 Septembrie 2000, Constanta, Romania (prezentare orală)
12. **C. Costin**, L. Sirghi, and G. Popa, "Monte Carlo Flux Method Used for a Radial Model of Plasma Positive Column", *Xth Conference on Plasma Physics and Applications*, 4-7 June 1998, Iasi, Romania (poster)

Data: 17/12/2024

Conf. univ. dr. habil. Claudiu COSTIN

Anexa 2 – CV – Conf. univ. dr. habil. 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"	RON 2500	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 spatiala 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 416130	10
2	H2020-2014-MSCA-NIGHT, Grant No. 633311 (RoTalkScience), RESEARCHERS' NIGHT in ROMANIA. #doyouspeakscience, director Lect. Dr. Ionut Topala (2014)	EUR 34499	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 12742	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 1388000	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 949500	7
6	COST Action MP0804, Highly Ionised Pulse Plasma Processes – HIPP Processes, director Dr. Ralf Bandorf (2009-2013)	EUR 258103	160
7	FP7-EURATOM-FUSION 2007-7.1, FUSENET - The European Fusion Education Network, Grant No. 224982 (Oct 2008 – Sept 2012)	EUR 25638	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 525000	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 150000	6
10	Grant CNCISIS 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 200000	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 160000	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 18223 și RON 316300	6
13	Platforma AMON, Cod CNCSIS 31: "Integrated Platform for Advanced Studies in Molecular Nanotechnologies" (AMON), Responsabil Prof. Dr. Alexandru Stancu (2005-2008)	RON 4050000	100
14	Grant CEEEX 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 284000	8
15	Grant CNCSIS Cod A 1344: "Diagnoza prin metode si mijloace electrice si optice a plasmelor produse in gaze nobile si amestecuri de gaze", director Prof. Dr. Gheorghe Popa (2003-2005)	RON 60000	6

Data: 17/12/2024

Conf. univ. dr. habil. Claudiu COSTIN