PERSONAL INFORMATION

Alina Silvia CHIPER

Alexandru Ioan Cuza University of Iasi, Faculty of Physics, IPARC – Iasi Plasma Advanced Research Center, 11 Carol I Blvd., 700506 Iasi, Romania
+40 0232 201188

alina.chiper@uaic.ro
www.webofscience.com/wos/author/record/C-1694-2012
https://orcid.org/0000-0003-2630-2907
www.phys.uaic.ro/index.php/organizare/personal-didactic/silvia-alina-chiper/

Gender F | Date of birth 12/06/1975 | Nationality Romanian

WORK EXPERIENCE

October 2022 – present — Associate Professor, Ph.D.

October 2009 – Sept. 2022 — Lecture, Ph.D.

October 2004 – Sept. 2009 — Teaching Assistant

Alexandru Ioan Cuza University of Iasi, 11 Carol I Blvd., 700506 Iasi, Romania

Activities and responsibilities:

- Teaching activities with undergraduate, master and doctoral students
- Master (32) and undergraduate (13) thesis coordinator
- Research in plasma physics and applications

Business or sector Education and Research

July 2010 – March 2013 — Postdoctoral Researcher

Alexandru Ioan Cuza University of Iasi, 11 Carol I Blvd., 700506 Iasi, Romania

- Activities and responsibilities: Research activities in POSDRU/89/1.5/S/49944 grant **"**Developing the Innovation Capacity and Improving the Impact of Research through Post-doctoral Programmes**"** with Individual project entitled **"***Study of cold plasma produced inside of closed packages with different shapes and sizes. Applications***."**

Business or sector Research

October 2006 – Sept. 2008 — Postdoctoral Researcher

Alexandru Ioan Cuza University of Iasi, 11 Carol I Blvd., 700506 Iasi, Romania

Activities and responsibilities: Research activities in grant CEEX post-doc no. 5918/2006, Title *"Development of techniques and methods for transient plasmas diagnostic***"**

Business or sector Research

EDUCATION AND TRAINING

April 2025 — Dr. Habil. in Physics

Alexandru Ioan Cuza University of Iasi, Romania

- Thesis title: „*Non-equilibrium Plasmas at Atmospheric Pressure. Diagnosis and Applications"*

Nov. 2000 – Nov. 2005 — Ph.D. in Physics

Alexandru Ioan Cuza University of Iasi, Romania

- Thesis title: "*Contributions to the study of the surface treatments using barrier discharge plasma*", under the scientific supervision of Prof. Dr. Gheorghe Popa

October 1998 – June 2000 **Master of Science in Plasma Physics**

Alexandru Ioan Cuza University of Iasi, Romania

- Master Thesis *"Plasma - solid surface interaction"*

October 1994 – June 1998 **Bachelor of Science in Physics**

Alexandru Ioan Cuza University of Iasi, Romania

- Physics

September 1990 – June 1994 **Baccalaureate**

"Nicolae Balcescu" College, Braila, Romania

- Mathematics and Physics

18 – 28 Iunie 2023 **CEEPUS (CIII-AT-0063) Teaching Mobility**

29 Iunie – 2 Iulie 2023 **ERASMUS+ Teaching and Training Mobility KA 131-HED-000063703**

University of Innsbruck, Institute for Ion Physics and Applied Physics, 6020 Innsbruck, Austria

Teaching Assignments:

- *The physics, diagnosis and applications of novel atmospheric-pressure low-temperature plasmas*
- *Atmospheric plasma physics and its applications*

1 – 30 December 2014 **CEEPUS (CIII-AT-0063) Teaching Mobility**

12 – 24 August 2014 **LLP-ERASMUS Teaching Mobility**

University of Innsbruck, Institute for Ion Physics and Applied Physics, 6020 Innsbruck, Austria

Teaching Assignments:

- *Non-thermal Atmospheric-Pressure Plasmas and their Applications*,
- *Atmospheric - Pressure Plasma Physics*

July – September 2009
September – November 2008
September – November 2007 **Invited Researcher**

Risø National Laboratory for Sustainable Energy, Optics and Plasma Research Department, Technical University of Denmark, Frederiksborgvej 399, Roskilde – 4000, Denmark

- *Atmospheric pressure plasma produced inside of closed packages used for bacterial inactivation*
- *Optical diagnostics and optimization of dielectric barrier discharges and micro discharges*

April 2006 - June 2006 **Research fellowship - financed by Romanian Government through National Office of Scholarships Abroad (ONBSS)**

5 – 22 Dec. 2007
9 – 22 December 2008 **Brancusi Mobility**

Laboratoire de Physique des Gaz et des Plasmas, Université Paris-Sud, Bat. 210, 15 rue G Clémenceau, 91405 Orsay Cedex, Paris, France

- *Volatile organic compounds decomposition by non-equilibrium atmospheric plasma. The role of applied voltage type and water vapors*
- *Properties and diagnosis of the atmospheric plasma discharges. Volatile organic compounds decomposition by atmospheric plasma produced in air and nitrogen.*

October 2003 – March 2004 **Erasmus Scholaship**

Laboratoire de Physique des Gaz et des Plasmas, Université Paris-Sud, Bat. 210, 15 rue G Clémenceau, 91405 Orsay Cedex, Paris, France

- *Acethaldehyde decomposition by a.c. dielectric barrier discharge in dry and humid air*

PROFESSIONAL SKILLS AND COMPETENCES

Scientific Research Activity

- Scientific fields of expertise: atmospheric plasma physics and aplications; diagnosis of non-equilibrium plasmas, plasma sources - generation and optimization of atmospheric pressure plasmas for environmental protection, surface treatment and bacterial inactivation; plasma chemistry.

Publications

- 27 scientific papers published in journals with ISI impact factor (18 as first author and 4 as corresponding author)

Conferences

- 55 contributions to international conferences (27 conference proccedings, 1 invited lecture, 7 oral presentations) and 11 contributions to national conferences

Citations

- More than 560 ISI Times Cited without self-citations, 23.15 Average Citations per Item.
- Hirsch-index: 15 (Web of Science);

Projects / Grants

- Director of 2 research grants:
  - CNCSIS grant, type AT, code: 159/2007, Title: *Study of secondary discharge mechanism in the pulsed DBD system at atmospheric pressure*; funding institution: Ministry of Education and Research, amount granted: 160 000 lei, 2007-2008
  - CNCSIS grant, type TD, code: 353/2005, Title*: Diagnosis of dielectric barier discharge plasma used for polymer surface treatment*; funding institution: Ministry of Education and Research, amount granted: 5000 RON
- Member in 15 grants.
- CNATDCU scors: A=2.299; I=4.615; P=10.468; C=137.272
  (for Professor: A ≥ 2; I ≥ 4; P ≥ 4; C ≥ 40).

Teaching Activity

- *Undergraduate:* Technological Applications of Plasma Physics (course and laboratory work - LW), Vacuum Physics and Technology (course and LW), Energy Conversion and Storage (course and LW), Atomic Physics (Seminaries and LW), Molecular Physics (LW), Atomic and Molecular Physics (Seminaries and LW), Oscillations and Waves (LW), Mechanics (LW), Optics (LW), General Physics – mechanics and molecular physics (LW).
- *Master:* Current Topics in Plasma Physics (course and LW), Biocompatibility and Biomaterials (course and LW), Physical Working Principles of Devices used in Physiotherapy (course and LW), Modern techniques used in medical recovery (course and LW), Polymer Physics (LW), Biomechanics (LW), Structure of Matter (LW).

Books/ Books Chapters

- **Alina Silvia Chiper**, „*Technological applications of plasma physics. Introductory elements. Practical works"*, Publisher: Editura Universității „Alexandru Ioan Cuza" din Iași, 2023, ISBN: 978-606-714-810-7, 142 pages;
- Lucel Sîrghi, Claudiu Costin, **Alina Silvia Chiper**, „*Vacuum physics and tecnology. Practical works"*, Publisher: Editura Universității „Alexandru Ioan Cuza" din Iași, 2024, ISBN: 978-606-714-905-0, 198 pages
- **Alina Silvia Chiper**, „*Biomechanics. Practical works"*, Publisher:Editura Universității „Alexandru Ioan Cuza" din Iași, 2024, ISBN: 978-606-714-865-7, 208 pages.
- **Alina Chiper**, Cătălin Borcia, Ionuț Topală, Gabriela Borcia (coordinator), „*Physics of atoms and molecules. Practical works*", Publisher: Editura Universităţii „Alexandru Ioan Cuza" din Iaşi, 2014, ISBN: 978-606-714-090-3, 232 pages

PERSONAL SKILLS

Organisational / Managerial Skills

- Director of 2 research grants.
- Expert - Reviewer at UEFISCDI - The Executive Agency for Higher Education, Research, Development and Innovation Funding (competitions 2016 and 2019)
- Peer review activities for ISI ranked journals (Scientific Reports, Plasma Sources Science and Technology, Journal of Physics D: Applied Physics; Physics of Plasmas; IEEE Transactions on Plasma Science; Plasma Science & Technology; Surface and Coatings Technology; Materials Research Express; Central European Journal of Physics; Physica Scripta, Sensors & Actuators: A. Physical; Journal of Optoelectronics and Advanced Materials)
- Member of the Local Organizing Committee for international conferences: ICPIG 2015; Inter-Academia 2017, 2011 and 2006; CPPA 2023, 2019, 2010, 2005, 2003; Summer School - 2011: Plasma diagnostics by electrical probes and lasers.
- Member of the Organizing Committee for European Researchers' Night 2013 - 2014 and 2018 - 2019.

Technical Skills and Competences

- Diagnosis of Non-Equilibrium Plasmas by Tunable Diode Laser Absorption Spectroscopy, UV Absorption Spectroscopy, ICCD Imaging Technique, Optical Emission Spectroscopy; Surface Analyses by Contact Angle; XPS and IR Spectra Analyses; Chromatographic Technique.

Other Skills

Origin; Microsoft Office

Mother Tongue(s)

Romanian

Other Language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	B2	B2	B2
French	B2	B2	B1	B1	A2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
Common European Framework of Reference for Languages

ADDITIONAL INFORMATION

- Web of Science: https://www.webofscience.com/wos/author/record/C-1694-2012
- ORCID iD: http://orcid.org/0000-0003-2630-2907
- BRAINMAP: https://www.brainmap.ro/alina-silvia-chiper
- Google Scholar: https://scholar.google.ro/citations?user=2Ud3LRsAAAAJ&hl=ro

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