

Curriculum Vitae

Dr. CĂTĂLIN-PAUL CONSTANTIN

- **Personal data:**

Date/place of birth: December 21, 1985/ Tecuci - Galați, ROMANIA

Nationality: Romanian; Gender/Status: Male/Not married

Profile address on www.researcherid.com: <http://www.researcherid.com/rid/P-4210-2014>

- **Education and training:**

2011-2014 **PhD Degree in Chemistry**, theme: “*New high performance nitrogen- containing heterocyclic polymers*”, Romanian Academy, ”Petru Poni” Institute of Macromolecular Chemistry, Iasi, Romania, October 2014, Supervisors: dr. Mariana Pinteala, dr. Maria Bruma. Thesis summary on:

https://www.researchgate.net/publication/311935547_New_High_Performance_Nitrogen-Containing_Heterocyclic_Polymers

2010-2011 **Master Degree** in Chemistry and Biochemistry of Heterocyclic Compounds, Faculty of Chemistry, ”Alexandru Ioan Cuza” University, Iasi, Romania, 2010

2009-2010 **ERASMUS Student** at Technical University of Braunschweig, Germany

2005-2008 **Bachelor of Chemistry**, Faculty of Chemistry, ”Alexandru Ioan Cuza” University, Iasi, Romania

Nov. 2012, **PhD/Postdoc stages** at Center of Polymers and Carbon Materials of the Polish

Oct. 2017, Academy of Science, Zabrze, Poland (1 week/stage)

Sept. 2019

- **Professional experience:**

Nov. 2014 - present **Young Researcher**, Polycondensation and Thermostable Polymers Department/ Electroactive Polymers and Plasmochemistry Department, ”Petru Poni” Institute of Macromolecular Chemistry, Iasi

Nov. 2011 - **Research assistant**, Polycondensation and Thermostable Polymers Department,

Nov. 2014 ”Petru Poni” Institute of Macromolecular Chemistry, Iasi

- **Research interest:**

- Fine organic synthesis of heterocyclic compounds
- Development of heterocyclic polymers: polyimides, polyoxadiazoles, polyphenoxazines, etc.
- Polymer processing in thin films and coatings towards polymer-based materials
- Heterocyclic polymer-based materials for electronic and optoelectronic applications
- Heterocyclic structure-based dyes for photovoltaic cells and organic light emitting diodes
- Polymer blends for gas separation membranes
- Polyimide and polyamide materials for biomedical applications

- **Experimental skills**

- Good experience in synthetic organic and macromolecular chemistry
- Expertise in the synthesis and structural identification of the molecular structures

- Expertise in preparation of thin films and coatings
 - Expertise in physical-chemical characterization of polymer materials
 - Expertise in assessing the applicative potential of polymer materials
 - Skill in manipulation several instruments (FTIR, DSC, RMN, UV-vis, PL, TGA, DSC, Maldi-TOF MS, electrochemistry, electrical measurements)
- **Computer skills**
 - Ability to use specific programs, such as ACD Lab, Chemdraw, Origin, Adobe Acrobat, HyperChem, TopSpin, Gaussian, GaussView, Microsoft Office, CorelDraw, Photoshop.
- **Scientific contribution:**
 - **40** scientific referred articles published in ISI journals
 - **1** paper published in non-ISI journal
 - **2** paper published in **ISI indexed** proceedings of international conferences
 - **43** oral presentations (lectures or communications) and **4** posters
 - **2** book chapters as co-author
 - project leader of **1** research project
 - Demonstrative Experimental Project, code: PN-III-P2-2.1-PED-2019-3520
 - member in **10** projects/contracts
 - Young Research Teams Project, code: PN II-RU TE_221
 - Framework Contract Services in the frame of POS-CCE-axis II CDI project no. 840 / 03.04.2013
 - European Structural Funds, Knowledge Transfer to Economical Agents Project, code: POC-A1-A1.2.3-G-2015
 - Demonstrative Experimental Project, code: PN-III-P2-2.1-PED-2016-0510
 - Exploratory Research Project, code: PN-III-P4-ID-PCE-2016-0708
 - Demonstrative Experimental Project, code: PN-III-P2-2.1-PED-2019-3993
 - Exploratory Research Project, code: PN-III-P4-PCE-2021-1728
 - Demonstrative Experimental Project, code: PN-III-P2-2.1-PED-2021-1666
 - Young Research Teams Project, code: PN-III-P1-1.1-TE-2021-1110
 - Time recording for HORIZON 2020 Action, Grant Agreement Project 101135796 - COMPAS
 - member of the organizing committee of **3** international symposia
- **Scientific visibility:**
 - **H-index: 16** (*according to ISI Web of Science, June 2024*)
 - **Sum of the times cited: 639** (*according to ISI Web of Science, June 2024*)
- **Selective publications:**

[1] Synergetic Effect between Structural Manipulation and Physical Properties towards Perspective Electrochromic n-Type Polyimides

Macromolecules, **52**, 8040–8055 (2019); IF = **5.5**, **Q1**

C. P. Constantin*, A. E. Bejan, M. D. Damaceanu

[2] Assessing the Electrical Characteristics of p–n Heterojunction Prototype Diodes Realized with n-Type Polyimide Materials

Macromolecules, **54**, 941–957 (2021); IF = **5.5**, **Q1**

C. P. Constantin*, G. Lisa, M. D. Damaceanu

[3] Structural Chemistry-Assisted Strategy toward Fast Cis–Trans Photo/Thermal Isomerization Switch of Novel Azo-Naphthalene-Based Polyimides

Macromolecules, **54**, 1517–1538 (2021); IF = **5.5**, **Q1**

C. P. Constantin*, I. Sava, M. D. Damaceanu

[4] A refreshing perspective on electrochromic materials: Phenoxazine as an opportune moiety towards stable and efficient electrochromic polyimides

Chem. Eng. J., 465, 142883 (2023); IF = **15.1**, **Q1**

C. P. Constantin*, M. D. Damaceanu

<https://doi.org/10.1016/j.cej.2023.142883>

[5] Exploring innovative synthetic solutions for advanced polymer-based electrochromic energy storage devices: Phenoxazine as a promising chromophore.

J. Energy Chem., 91, 433–452 (2024); IF = **13.1**, **Q1**

C. P. Constantin*, M. Balan-Porcarasu, G. Lisa

- **List of Patent application**

[1] *Dye and solar cell*, M. D. Damaceanu, **C. P. Constantin**, M. Mihaila, M. Kusko, R. Pascu, OSIM, CBI, nr. A/ 00445/21.06.2018.

- **List of chapter books**

[1] Dimensiunea demografica. Optiuni si recomandari

R. D. Rusu, D. Rusu, **C. P. Constantin**

In Resursele strategice ale Romaniei. O abordare pentru urmatoarele doua decenii, R. D. Rusu, M. Mihai, Ed. StudIS, Iasi, 185-202, (2016), ISBN: 978-606-775-124-6

[2] Intelligent amide- and imide-based polymeric materials for biomedical applications

R. D. Rusu, D. M. Damaceanu, **C. P. Constantin**

In Intelligent Polymers for Nanomedicine and Biotechnologies, M. Aflori, Ed. CRC Press, Taylor & Francis Group, Boca Raton, Florida (2017), ISBN 9781138746459 - CAT# K32488

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