

## Curriculum Vitae

### Dr. CĂTĂLIN-PAUL CONSTANTIN

- **Personal data:**

Date/place of birth: [REDACTED] Tecuci - Galați, ROMANIA

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

Profile address on [www.researcherid.com](http://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](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 Plasmachemistry Department, ”Petru Poni” Institute of Macromolecular Chemistry, Iasi

**Nov. 2011 - present**      **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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