

## 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):** <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 Plasmachemistry 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:**

- **25** scientific referred articles published in ISI journals
- **1** paper published in non-ISI journal
- **2** paper published in **ISI indexed** proceedings of international conferences
- **23** oral presentations (lectures or communications) and **4** posters
- **2** book chapters as co-author
- director of **1** research project and member in other **6** projects/contracts
  - o Young Research Teams Project, code: PN II-RU TE\_221
  - o Framework Contract Services in the frame of POS-CCE-axis II CDI project no. 840 / 03.04.2013
  - o European Structural Funds, Knowledge Transfer to Economical Agents Project, code: POC-A1-A1.2.3-G-2015
  - o Demonstrative Experimental Project, code: PN-III-P2-2.1-PED-2016-0510
  - o Exploratory Research Project, code: PN-III-P4-ID-PCE-2016-0708
  - o Demonstrative Experimental Project, code: PN-III-P2-2.1-PED-2019-3520
  - o Demonstrative Experimental Project, code: PN-III-P2-2.1-PED-2019-3993
- member in the organizing committee of **2** international symposia

- **Scientific visibility:**

- **H-index: 9** (*according to ISI Web of Science, May 2021*)
- **Sum of the times cited: 248** (*according to ISI Web of Science, May 2021*)

- **Selective publications:**

[1]. The chromic and electrochemical response of  $\text{CoCl}_2$  – filled polyimide materials for sensing applications

*Sens. Actuators, B*, **234**, 549–561 (2016); IF = **7.100**, **Q1**

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

[2]. Heteroatom-mediated performance of dye-sensitized solar cells based on T-shaped molecules

*Dyes Pigm.*, **166**, 15–31 (2019); IF = **4.613**, **Q1**

M. D. Damaceanu, **C. P. Constantin**, A. E. Bejan, M. Mihaila, M. Kusko, C. Diaconu, I. Mihalache, R. Pascu

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

**C. P. Constantin\***, A. E. Bejan, M. D. Damaceanu; IF = **5.918**, **Q1**

*Macromolecules*, **52**, 8040–8055 (2019); IF = **5.918**, **Q1**

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

*Macromolecules*, **54**, 941–957 (2021); IF = **5.918**, **Q1**

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

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

*Macromolecules*, **54**, 1517–1538 (2021); IF = **5.918**, **Q1**

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

[6] Exploring the potential of thin films made from poly(imide-amide-sulfone)s for engineering applications

**C. P. Constantin**, M. Asandulesa, C. Varganici, V. Melinte, M. Bruma, A. Jankowski, A. Wolinska-Grabczyk, M. D. Damaceanu\*

*Mater. Sci. Eng., B*, **270**, 115217 (2021); IF = **4.706**, **Q2**

- **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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