

Dr. Radu - Dan RUSU

Researcher, "Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania

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Professional experience

- ❑ Researcher, "Petru Poni" Institute of Macromolecular Chemistry, Romanian Academy, Iasi (ICMPP), since September 2018
- ❑ Junior Researcher, ICMPP, January 2014 - August 2018
- ❑ Research Assistant, Polycondensation Department, ICMPP, November 2007 - December 2013
- ❑ Teacher, "Trinitas" School of Arts and Crafts, Targu-Frumos, Iasi, September 2006 - June 2007

Education and training

- ❑ Postdoctoral Sciex Fellowship, ETH Zürich, Switzerland, May 2012 - May 2013
 - Title: "Denpol: Structure and properties of dendronized polymers with active backbones"
 - Postdoc Supervisor: Prof. A. D. Schlüter
 - Research themes: Suzuki polycondensation: mechanistic insights; synthesis and investigation of high molar mass, polar groups-decorated polyfluorenes; fluorene-based oligomeric libraries
- ❑ PhD Degree in Chemistry, ICMPP, October 2011
 - Title: "New polymers and copolymers containing 1,3,4-oxadiazole rings for advanced materials"; PhD Supervisor: Dr. Maria Bruma
 - Research themes: new heterocyclic monomers and polymers: polyoxadiazoles, polyamides, polyimides; morphological, electrical, mechanical, thermal and optical investigation of polymeric materials for organic electronics; self-organized, nanostructured polymers
- ❑ Master Degree in Chemistry and Biochemistry of Heterocyclic Compounds, Faculty of Chemistry, "Al. I. Cuza" University, Iasi, Romania, 2008
- ❑ Bachelor of Chemistry, Faculty of Chemistry, "Al. I. Cuza" University, Iasi, Romania, 2006
- ❑ Short scientific stages at Center for Polymers and Carbon Materials of the Polish Academy of Science, Zabrze, Poland 2008, 2010, 2011 (two weeks each)

Research skills and competences

- ❑ Application-driven polymeric architectures
- ❑ Organic and polymer design, synthesis and investigation
- ❑ Polymer processing (thin films and coatings)
- ❑ Structure-properties relationship in high performance polymers
- ❑ Physico-chemical characterization of polymeric materials by FTIR, NMR, GPC, UV-Vis, PL, TGA, DSC, BDS, etc.

Research interests

- Heterocyclic & aromatic macromolecular architectures for high performance applications
- Photo- and electro-optical properties of polymers
- Polymer-based organic electronics
- Chemistry of (classic and Suzuki) polycondensation polymers
- Polymer processing (especially in thin films and coatings)
- Self-organized and nanostructured polymeric materials

Scientific contribution. Scientometric indicators

- 27** peer-reviewed articles in ISI indexed journals (one on the cover of *Microscopy and Microanalysis*), **8** ISI proceedings, **1** ISI book chapter, and **1** article in a BDI journal
- 15** peer-reviewed proceedings (**8** ISI indexed)
- Co-author of **5** book chapters (**1** ISI indexed; **3** in English)
- Co-editor of **3** books (in Romanian)
- 1** national (OSIM) patent application
- Author or co-author of more than **45** presentations (**8** plenary conferences, **21** oral presentations, **19** posters) at scientific events, mostly international
- H-index: **10**; more than **260** citations (**202** citations and **134** citing articles without self-citations) average citations per item: **7.36**, (according to Web of Science, March 2020)

Positions of responsibility and awards

- Coordinator/responsible of 3 scientific projects granted by competition
- Team member of 5 research projects
- Member of the organizing committee of 3 scientific meetings
- Supervision of a Master student at ETH in a project concerning fluorene oligomeric libraries
- Mentor in the research stages of bachelor students (since 2016, 7 - 8 students/year, at least 2 weeks/year)
- Reviewer of 5 scientific papers
- Excellence in Education Award, International Education Festival, Iasi, 2013

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