Dr. Irina BUTNARU (born BACOSCA)
Researcher at "Petru Poni" Institute of Macromolecular Chemistry (ICMPP), Iasi, Romania
Electroactive Polymers and Plasmochemistry Laboratory
butnaru.irina@icmpp.ro

Education and Training:

2014-2013	**Postdoctoral Sciex Fellowship**, EMPA St. Gallen, Switzerland, in the frame of the project: <PolyFrad–Sustainable Polymeric Flame Retardants>
Oct. 2010	**PhD Degree in Chemistry,** ICMPP with the PhD thesis: <Synthesis and characterization of modified polyimides for high performance applications>
2007-2006	**Master Degree**, specialization <Natural Products>, Faculty of Chemical Engineering, "Gh. Asachi" Technical University, Iasi
2006-2001	**Bachelor Degree in Engineering Chemistry**, specialization <Organic Compounds Technology>, Faculty of Chemical Engineering, "Gh. Asachi" Technical University, Iasi.

Work experience:

2021-present	**Researcher,** ICMPP, Electroactive Polymers and Plasmochemistry Laboratory, Iasi
Oct. 2018	**Short PhD stage,** Centre of Polymer and Carbon Materials, Laboratory of Polycondensation Materials Engineering, Zabrze, Poland
2020-2011	**Researcher,** ICMPP, Polycondensation and Thermostable Polymers Laboratory, Iasi
April – June 2012	**PostDoctoral stage,** Centre of Inovative Materials for Advanced Technologies (CIMAT), University of Potsdan, Germany, on theme: <Polyimides processable by solution casting. Optoelectronic properties of thin films. Laser irradiation. Sensors>
April–June 2011	**PostDoctoral stage**, Centre of Inovative Materials for Advanced Technologies (CIMAT), University of Potsdan, Germany, on theme: <Synthesis and characterization of heterocyclic polymers containing imide rings and various functional groups>
2011-2010	**Young researcher,** ICMPP, Iasi
Oct. 2007	**Short PhD stage,** Centre for Polymer Chemistry, Physics Department, Zabrze, Poland
2006-2010	**Research assistant,** ICMPP, Iasi

Research interests:

- Development and characterization of aromatic and heterocyclic polymers
- Processing of polymer-based materials into membranes, thin films, coatings, fibers, compounding and compression molding
- Innovative polymer-based materials and polymer nanocomposites for electronics and optoelectronics
- Heterocyclic polymer materials for bio and flame retardant applications
- Smart materials with photochromic response to light radiation
- Polymers, polymer blends and polymer composites for gas separation membranes suitable for environmental protection and energy field

Research skills and competences:

- ✓ Experience in synthetic organic and macromolecular chemistry
- ✓ Expertise in physical-chemical characterization and structure-properties correlations of the designed polymeric materials
- ✓ Experience in the preparation of membranes, thin films, coatings and fibers from polymer or composite solutions, or by melting and compression
- ✓ Expertise in assessing the applicative potential of polymer materials

- ✓ Skill in manipulating several apparatus (FTIR, DSC, TGA, UV-vis, PL, rheology, PCFC, UL-94, electrochemistry, electrical measurements)
- ✓ Ability to use specific programs for chemistry such as ACD Lab, Chemdraw, Origin, HyperChem, TopSpin

Scientific contribution:

- **25** scientific referred articles published in ISI journals
- **6** refereed articles published in the proceedings of scientific meetings (of which 5 are ISI indexed)
- **10** oral presentations (lectures or communications) and **18** posters
- **1** mobility project as coordinator and **7** research projects as team member
- international reviewer of **4** articles in ISI journals

International visibility:

- **H-index: 9** (*according to ISI Web of Science*, cumulative Butnaru I* and Bacosca I*, May 2021)
- **Sum of the times cited***:**252,* **without self-citation:** *201 (according to ISI Web of Science*, May 2021)
- **Brainmap ID:** U-1700-036P-6333
- **ORCID ID**: 0000-0002-1289-6436

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