

Curriculum vitae Europass

Personal information **Roxana Gabriela ZGÂRIAN**

Address **"Polizu" Campus**, 1-7 Gh. Polizu Street, 011061 Bucharest, ROMANIA
Tel. 021-4023930
E-mail zgirianroxana@yahoo.com
Nationality Romanian
Date of birth 26.01.1978

Position **Associate Professor**

Department of General Chemistry, Faculty of Chemical Engineering and Biotechnologies,
University Politehnica of Bucharest

Work experience

- 2017-present Associate Professor**
Department of General Chemistry, Faculty of Chemical Engineering and Biotechnologies, University Politehnica of Bucharest, **Sector of activity: Teaching**
- 2011-2017 Lecturer**
Department of General Chemistry, Faculty of Applied Chemistry and Materials Science, University Politehnica of Bucharest, **Sector of activity: Teaching**
- 2005-2011 Teaching assistant**
Department of General Chemistry, Faculty of Applied Chemistry and Materials Science, University Politehnica of Bucharest, **Sector of activity: Teaching**
- 2002-2005 Junior teaching assistant**
Department of General Chemistry, Faculty of Applied Chemistry and Materials Science, University Politehnica of Bucharest, **Sector of activity: Teaching**

Education and training

2002-2010 Ph.D in Chemistry

Department of General Chemistry, Faculty of Applied Chemistry and Materials Science, University Politehnica of Bucharest

Thesis title: *"The elaboration and synthesis of new polymeric materials with high technology applications"*

Coordinator: Prof. Dr. Ioana Demetrescu

2005-2006 Research internship supported by CNCSIS grant type TD - Project Director

Department of General Chemistry, Faculty of Applied Chemistry and Materials Science, University Politehnica of Bucharest

"Tehnici de investigație în evaluarea a noi micro- și nanostructuri polimerice pe bază de colagen destinate creșterii de celule osteoblaste"

2003-2006 PhD scholarships – CNCSIS type BD

"The elaboration and synthesis of new polymeric materials with high technology applications"

2002-2004 Master degree

Substances, materials and biocompatible systems, Department of Bioengineering and Biotechnology, University Politehnica of Bucharest. Dissertation: *"Methods for the evaluation of substances and biocompatible materials"*

1997 - 2002 Chemical engineer

Faculty of Applied Chemistry and Materials Science, University Politehnica of Bucharest

Specialization: Technology of macromolecular compounds

Diploma thesis: *"Study of physical and mechanical characteristics of composite materials based on epoxy resins and unsaturated polyester resins reinforced with glass fibers"*

Personal skills

Mother tongue **Romanian**

Other languages **English, Russian**

Communication skills Ability to work in a team, tenacity, perseverance, ability to adapt to multicultural environments acquired through participation in numerous national and international conferences, but also by participating in the project research team as a director / participant.

Digital competence Good knowledge of Microsoft Office tools (Word, Excel, Power Point)

Organisational / managerial skills Scientific coordinator for dissertation thesis. Professor supervisor at the student's scientific communication session. Project director. Coordination of practical laboratory works, courses, seminars.
Graduate course: Organizational Behavior and Leadership for Innovation, 02 - 08 August 2013, within the project POSDRU/86/1.2/S/57748/ - INSEED, "Program strategic pentru promovarea inovării în servicii prin educație deschisă, continuă", 2010-2013

Technical skills and competences Ease of use of modern laboratory instruments and equipment, technical assistance

Driving license Driving license category: B

Awards - CNCSIS awards: Articles:

- Ternary biopolymeric films based on collagen gel, polyethylene glycol and hydroxyapatite, *Materiale Plastice*, **2009**. 46(2): p. 140-143, **Roxana G. Popescu**, Alexandru Morega, Dana Iordăchescu, Ioana Demetrescu;
- Effect of hydrophilic – hydrophobic balance on biocompatibility of poly (methyl methacrylate) (PMMA) – hydroxyapatite (HA) composites, *Materials Chemistry And Physics*, **2009**. 118: p. 265–269, Tihan Grațîela Teodora, Ioniță Mioara Daniela, **Popescu Roxana Gabriela**, Iordăchescu Dana;
- New Polymeric Nanocomposites Based On Polyhedral Oligomeric Silsesquioxanes, *Materiale Plastice*, **2009**. 46(1): p. 1-10, Nicoleta Mihaela Șulca, Adriana Lungu, **Roxana Popescu**, Sorina Alexandra Gârea, Horia Iovu
- The standard enthalpies of formation of proline stereoisomers, **2012**. 537: p. 31-35, I. Contineanu, A. Neacsu, **Roxana Zgarian**, S. Tanasescu, S. Perisanu
- PN-II-RU-PRECISI- 2014-8-5331 "A significant improvement of luminance vs current density efficiency of a BioLED"; *OPT MATER*, vol. 36, no. 6, pp. 1027–1033, **2014**
- PN-II-RU-PRECISI- 2014-8-5357 "Niflumic acid-collagen delivery systems used as anti- inflammatory drugs and analgesics in dentistry"; *CR CHIM*; vol. 17, no. 1, pp. 12-17, ISSN: 1631-0748, **2014**
- PN-II-RU-PRECISI-2015-9-9222 "Novel nanocomposites based on epoxy resin/epoxy-functionalized polydimethylsiloxane reinforced with POSS", *Composites Part B – Engineering* 75, **2015**: p. 226-234, N.M. Florea, A. Lungu, P. Badica, L. Craciun, M. Enculescu, D.G. Ghita, C. Ionescu, **R.G. Zgarian**, H. Iovu.
- PN-II-RUPRECISI-2015- 9-10646, "Chloramphenicol collagen sponges for local drug delivery in dentistry", *Comptes rendus - Chimie*, vol. 18, pp. 986-992, ISSN: 1631-0748, **2015**, Grațîela Teodora Tihan, Camelia Ungureanu, Răzvan Constantin Barbaresso, **Roxana Gabriela Zgărian**, Ileana Rău, Aurelia Meghea, Mădălina Georgiana Albu, Mihaela Violeta Ghica
- PN-III-P1-1.1- PRECISI-2016- 13153, Tihan T. G., Rău I., **Zgărian R. G.***, Ghica M. V., *Collagen-based biomaterials for ibuprofen delivery*, *Comptes rendus - Chimie*, 19(3), pp. 390-394, **2016**.
- PN-III-P1-1.1- PRECISI-2017- 17881, „Chromophore doped DNA based solid polymer electrolyte for electrochromic devices”, **Zgărian R. G.**, Tihan G. T., Kajzar F., Rău I., Pawlicka A., Mindroiu M. V., *Arabian Journal of Chemistry*, vol. 10, ISSN:1878-5352, pp. 232-239, **2017**
- PN-III-P1-1.1- PRECISI-2018-27208, Tihan G.T., **Zgarian R.G.***, Berteanu E., Ionita D., Totea G., Iordachel C., Tatia R., Prodana M., Demetrescu I., *“Alkaline Phosphatase Immobilization on New Chitosan Membranes with Mg²⁺ for Biomedical Applications”*, *Marine Drugs* 16 (8), article number 287, **2018**
- PN-III-P1-1.1-PRECISI2019-33729 - Ioan D.C. Rau I., Tihan G.T., **Zgarian R.G.***, Ghica M.V., Kaya M.G.A., Dinu-Pîrvu, E.C., *Piroxicam-Collagen-Based Sponges for Medical Applications*, **International Journal Of Polymer Science**, Article Number: 6062381, ISSN: 1687-9422 **2019**
- **PN-III-P1-1.1-PRECISI-2019-38023**, G. T. Tihan, I. Rău 1, R. G. Zgărian*, C. Ungureanu*, R. C. Barbaresso, M. G. Albu Kaya, C. Dinu-Pîrvu, M. V. Ghica, *Oxytetracycline versus Doxycycline Collagen Sponges Designed as Potential Carrier Supports in Biomedical Applications*, **Pharmaceutics**, 363, 11(8), ISSN:1999-4923, pp. 1-20, **2019**
- PN-III-P1-1.1-PRECISI-2020-52669** G. T. Tihan, M. Mindroiu, I. Rau, L. M. Nóbrega de Assis, A. Pawlicka^b, **R. G. Zgarian***, The electrochromic device performance with DNA based electrolyte, **Materials Chemistry and Physics**, Volume 241, **2020**, 122349, <https://doi.org/10.1016/j.matchemphys.2019.122349>, Q2, FI = 3.408, ISSN 0254-0584, WOS: 000514749500029
- PN-III-P1-1.1- PRECISI-2020- 42711 Simona Caprarescu, **Roxana Gabriela Zgărian**, Gratiela Teodora Tihan*, Violeta Purcar, Eugenia Eftimie Totu, Cristina Modrogan, Anita-Laura Chiriac, Cristian Andi Nicolae, *Biopolymeric Membrane Enriched with Chitosan and Silver for Metallic Ions Removal*, **Polymers** **2020**, 12, 1792; doi:10.3390/polym12081792, Q1
- **PN-III-P1-1.1-PRECISI-2020-52341** Daniel-Cristian Ioan, Ileana Rau , Madalina Georgiana Albu Kaya , Nicoleta Radu, Marinela Bostan, **Roxana Gabriela Zgărian**, Gratiela Teodora Tihan, Cristina-Elena Dinu-Pîrvu, Alina Lupuliasa and Mihaela Violeta Ghica, *Ciprofloxacin-Collagen-Based Materials with Potential Oral Surgical Applications*, **Polymers**, **2020**, 12, 1915; doi:10.3390/polym12091915, Q1, WOS:000582022800001
- **PN-III-P1-1.1-PRECISI-2020-52708** Ana-Maria Manea-Saghin, Gratiela Teodora Tihan, **Roxana Gabriela Zgarian***, Carla-Cezarina Pădurețu, François Kajzar, Linear and non-linear optical properties of gelatin membranes doped with photoresponsive berries extracts, **Optical Materials** **108 Article number 110429**, **2020** Q2 10.1016/j.optmat.2020.110429 WOS 00058729090002

- CNCSIS award:

Patent: No. 122673, OSIM. BOPI no. 11/30.11.2009. Title: “Compoziție de film biopolimeric pe bază de gel de colagen și procedeu de obținere a acesteia”, I. B. Ionescu, D. Iordăchescu, **Roxana Gabriela Popescu**, I. Demetrescu, H. Iovu.

Affiliations

- Member of European Association for Chemical and Molecular Sciences - EuCheMS.
- Member of European Federation of Biotechnology
- Member of Society of Chemistry (Romania) (SRCh)
- Member of Society for Biomaterials (Romania)
- SPIE Member (The International Society for Optical Engineering)

Other mentions

- Member of the research team of 15 National Research and Development Programs and 2 International Programs
- Project Director for 1 national project.
- **Guest Editor Gels: Special Issue of Gels:** „Advances and Current Applications in Gel-Based Membranes”, 2023
- **Guest Editor Membranes: Special Issue:** "Biopolymers and Polysaccharides as Base Materials for Membrane Synthesis", 2023
- Member in the Committee of guidance for doctoral studies
- Member in Admission Committee for Faculty of Medical Engineering, 2011-2016
- Member in Admission Committee for Faculty of Applied Chemistry and Materials Science, 2017-2019
- Member in Admission Committee to Master's Degree for Biotechnology and Bioengineering Department, 2014, 2015
- Member of Scientific Committee of the Department of General Chemistry
- Responsible - Work protection, 2007-2012
- Students Coordination in practical research stage, 2012, 2013
- Student Coordination for dissertation thesis, 2014
- Tutore foreign students – 2013, 2014
- Scientific coordinator in the frame of student scientific sessions communications - UPB, General Chemistry Section, Faculty of Applied Chemistry and Materials Science
- Scientific reviewer at Journal of Applied Chemistry
- Scientific reviewer at Arabian Journal of Chemistry
- Scientific reviewer at Physical Sciences Research International
- Scientific reviewer at Marine Biotechnology
- Scientific reviewer at Journal of Antibiotics Research
- Scientific reviewer at Journal of Hematology and Blood Disorders (2019)
- Scientific reviewer at Biosensors 2019
- Scientific reviewer at World Journal of Applied Chemistry (WJAC) 2019
- Scientific reviewer at *Nano Materials Science* 2019
- Scientific reviewer at *Journal of Renewable Materials* 2019
- Scientific reviewer at *International Journal of Molecular Sciences* 2020
- Scientific reviewer at Journal of Electronic Materials 2020
- Scientific reviewer at Sensors 2021
- Scientific reviewer at Journal of Materials Science and Nanotechnology 2021
- Scientific reviewer at Materials 2021
- Scientific reviewer at Pharmaceuticals 2021
- Scientific reviewer at Pharmaceutics 2022
- Scientific reviewer at Journal of Agricultural and Crop Research 2022
- Scientific reviewer at UPB Scientific Bulletin, Series B: Chemistry and Materials Science 2022
- Scientific reviewer at Polymers 2023
- Scientific reviewer at Membranes 2023

- Participations in more than 45 international conferences
- Participation at British Council “*Global Education Dialogue: Universities and Cities*” – 30-31 march 2017, University Politehnica of Bucharest, Romania

- Specializations and qualifications**
- Graduate Teacher Training Department, University Politehnica of Bucharest, 2002
 - Graduate course: Informatization of medical services, 19 - 25 July 2013, within the project POSDRU/86/1.2/S/57748/ - INSEED, "Program strategic pentru promovarea inovarii în servicii prin educație deschisă, continuă", 2010-2013
 - Graduate course: Organizational Behavior and Leadership for Innovation, 2 - 8 August 2013, within the project POSDRU/86/1.2/S/57748/ - INSEED, "Program strategic pentru promovarea inovării în servicii prin educație deschisă, continuă", 2010-2013
 - Graduate course: "School of Academic Studies on Advanced Biophotonics and Biotronics", 10 - 23 iunie 2013, Bucharest, Romania. Scientific Seminar: "Synthesis and nonlinear optical properties of functionalized DNA-based biopolymers"
 - Traineeship, Brazil, Universidade Federal de São Carlos, 12 May - 6 June 2014 – postdoctoral study
 - Traineeship, Brazil, Universidade Federal de São Carlos, 15 April - 15 May 2015 – postdoctoral study.