PESONAL INFORMATION

Luminita Marin

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lmarin@icmpp.ro

Sex F | Date of birth [redacted] | Nationality Romanian

PROFESSIONAL EXPERIENCE

2021 – present
Head of the Department of Polycondensation and Thermostable Polymers
"Petru Poni" Institute of Macromolecular Chemistry, Iasi
Management, research

2020 – present
Senior Researcher I
"Petru Poni" Institute of Macromolecular Chemistry, Iasi
Research

2016 – present
Doctoral Supervisor
"Petru Poni" Institute of Macromolecular Chemistry, Iasi
Management, research

2015 – present
Group leader in the Polycondensation and Thermostable Polymers Department
"Petru Poni" Institute of Macromolecular Chemistry, Iasi
Management, research

2015 – 2020
Scientific Researcher II
"Petru Poni" Institute of Macromolecular Chemistry, Iasi
Research

2010 – 2015
Scientific Researcher III
"Petru Poni" Institute of Macromolecular Chemistry, Iasi
Research

2008 – 2010
Scientific Researcher
"Petru Poni" Institute of Macromolecular Chemistry, Iasi
Research

2001 – 2008
Research Assistant
"Petru Poni" Institute of Macromolecular Chemistry, Iasi
Research

1997 – 2001
Chemistry teacher
Feredeni-Deleni School, Iasi, Romania
Didactic activity

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EDUCATION AND TRAINING

April-May 2024 **Visiting Researcher**
National Institute for Materials Science, Tskuba, Japan
Chitosan based biosensors

December 2023 **Visiting Researcher**
Instituto de Física de São Carlos, Universidade de São Paulo, Brazil
Universidade Federal do Rio de Janeiro, BraZil
Chitosan based biosensors

January 2023 **Visiting Researcher**
Instituto de Física de São Carlos, Universidade de São Paulo, Brazil
Chitosan based biosensors

July 2019 **Visiting Researcher**
University of Florence, Florence, Italy
Carbon anhydrase inhibitors

May-July 2013 **Postdoctoral Stage**
Institut Européen des Membranes, Montpellier, France
Covalent dynamic chemistry

March-May 2011 **Postdoctoral Stage**
Institut Européen des Membranes, Montpellier, France
Covalent dynamic chemistry

2010-2013 **Postdoctoral Stage**
“Petru Poni” Institute of Macromolecular Chemistry, Iasi
Biomaterials based on chitosan; covalent dynamic chemistry

2001-2007 **PhD in Chemistry**
“Petru Poni” Institute of Macromolecular Chemistry, Iasi
Organic chemistry; Macromolecular Chemistry; Liquid crystals

January- July 2006 **PhD Stage**
Instituto per lo Studio delle Macromolecole, Milan, Italy
Organic chemistry; low molecular weight compounds containing chromophore groups, thin solid films

2000-2002 **MSc in Physical Organic Chemistry**
„Al. I. Cuza” University, Iasi
Organic chemistry, physico-chemistry of polymers, organic structural analysis, quantum chemistry, physical chemistry, etc.

1996 **Chemistry bachelor**
„Al. I. Cuza” University, Iasi
Organic chemistry, inorganic chemistry, macromolecular chemistry, analytic chemistry, physical chemistry, quantum chemistry, colloidal chemistry, biochemistry, physics
mathematics, etc.

PERSONAL SKILLS

Mother tongue: Romanian

Foreign language

	UNDERSTANDING		SEPAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1

Communication skills: Good communication skills gained during the didactic activity and during the postdoctoral/doctoral stages, and by dissemination of the research as speaker at international and national conferences and at various research institutes and universities

Organizational/Management Competences: Good skills to coordinate large research teams gained during by implementation of more of 14 projects as project director/ project tutor/team leader/work package leader

ADITIONALS INFORMATION

Publications: More than 140 scientific papers (more than 130 in ISI journals), books, book chapters

Oral communications: More than 100 conferences/oral communications at international and national conferences and as invited lecturer at various research institutes and universities

Projects: Team member of 28 research projects: coordinator/director for: 7 national projects, 2 bilateral projects, 1 European project; tutor for 3 postdoctoral projects; group leader for 1 European project; work-package leader for 1 European project; and team member for 13 national projects

Distinctions: "*Costin D. Neniţescu*" Romanian Academy Award 2006; *Cristofor Simonescu Medal* for excellence in macromolecular chemistry of the *American Chemical Society* in association with *Romanian International Chapter, 2019; Distinction* „*Top 1% Reviewers for Chemistry*", for 2017, 2018 and 2019 and „*Top 1% Reviewers in Cross Fields*" 2019 awarded by „PUBLONS".

Other academic activities:
-Editorial Board Member of the Polymers journal;
-Editorial Board Member of the Polysaccharides journal
-Editorial Board Member of the Progress on Chemistry and Application of Chitin and its Derivatives journal
-Reviewer for more of 700 papers (see https://publons.com/researcher/1279610/luminita-marin/);
-Member of the Mat. Sci. Commission of the National Council of Scientific Research (2017-2019)
-Member of the Chemistry Commission of the National Council for Titles Diplomas and Certificates (2018-2020)
-Board member of the European Chitin Society
-Inter-academic Exchange with 3 research institutes (Poland, Italy, Bulgary)
-Lecturer at summer school "Nanomaterials and Nanoarchitectures II: Composite Materials and Their Applications", Smolenice, Slovakia, 28 June 2024 – 5 July 2024

Scientometric profile:
-2760 citations (without self-citations) in Web of Science, Hirsh index 34, ID Researcher: F-7588-2011; orcid.org/0000-0003-3987-4912
-4240 citations in Google Scholar, Hirsh index 38, i10-index 93

Date: 01.09.2025

Dr. Habil. CS I Luminita Marin

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LIST OF RELEVANT PAPERS

1. Antimicrobial chitosan-based hydrogels: A novel approach to obtain sanitizers, D. Ailincai, M. Bercea, I. Rosca, I.A. Sandu, **L. Marin**, *Carbohydrate Polymers* 354, 123288 (2025)https://doi.org/10.1016/j.carbpol.2025.123288
2. Cold plasma irradiation of chitosan: A straight pathway to selective antitumor therapy, C. Miron, B.I. Andreica, M. Iftime, A. Fifere, T. Yamakawa, S. Toyokuni, M. Mizuno, L. Mititelu Tartau, A. Bejan, Y. Motooka, T. Kondo, I. Sava, V. Harabagiu, J. Kumagai, A. Tanaka, H. Tanaka, **L. Marin***, M. Hori, *International Journal of Biological Macromolecules 281,* 136513 (2024) https://doi.org/10.1016/j.ijbiomac.2024.136513
3. Chitosan-strigolactone mimics with synergistic effect: A new concept for plant biostimulants, M.M. Iftime, A. Nicolescu, F. Oancea, F. Georgescu, **L. Marin**, *Carbohydrate Polymers* 344, 122524 (2024) https://doi.org/10.1016/j.carbpol.2024.122524
4. Chitosan nanofibers encapsulating copper oxide nanoparticles: A new approach towards multifunctional ecological membranes with high antimicrobial and antioxidant efficiency, A. Bejan, A. Anisiei, B.I. Andreica, I. Rosca, **L. Marin***, *International Journal of Biological Macromolecules* 260, 129377 (2024) https://doi.org/10.1016/j.ijbiomac.2024.129377
5. Biocompatible hydrogels based on quaternary ammonium salts of chitosan with high antimicrobial activity as biocidal agents for disinfection, B.I. Andreica, L. Mititelu-Tartau, I. Rosca, I. Pelin, E. Nicol, **L. Marin**, *Carbohydrate Polymers 342,* 122389 (2024) https://doi.org/10.1016/j.carbpol.2024.122389
6. Quaternized chitosan/chitosan nanofibrous mats: An approach toward bioactive materials for tissue engineering and regenerative medicine; B.-I. Andreica, A. Anisiei, I. Rosca, A.-I. Sandu, A.-S. Pasca, L. Mititelu-Tartau, **L. Marin***; *Carbohydrate Polymers* 302, 120431 (2023) https://doi.org/10.1016/j.carbpol.2022.120431
7. Electrospinning of chitosan-based nanofibers: from design to perspective applications; A. Anisiei, F. Oancea, **L. Marin***; *Reviews in Chemical Engineering* 39, 31-70 (2023) https://doi.org/10.1515/revce-2021-0003
8. Mesoporous chitosan nanofibers loaded with norfloxacin and coated with phenylboronic acid perform as bioabsorbable active dressings to accelerate the healing of burn wounds; D. Ailincai, S. Cibotaru, A. Anisiei, C. G. Coman, A. S. Pasca, I. Rosca, A.-I. Sandu, L. Mititelu-Tartau, **L. Marin***; *Carbohydrate Polymers* 318, 121135 (2023) https://doi.org/10.1016/j.carbpol.2023.121135
9. Quaternized chitosan-based nanofibers with strong antibacterial and antioxidant activity designed as ecological active food packaging; B.-I. Andreica, A. Anisiei, I. Rosca, **L. Marin***; *Food Packaging and Shelf Life* 39, 101157 (2023) https://doi.org/10.1016/j.fpsl.2023.101157
10. Biodegradable trimethyl chitosan nanofiber mats by electrospinning as bioabsorbable dressings for wound closure and healing; A. Anisiei, B.-I. Andreica, L. Mititelu-Tartau, C.-G Coman, R. Bilyy, G. Bila, I. Rosca, A.-I Sandu, E. Amler, **L. Marin***; *International Journal of Biological Macromolecules* 249, 126056 (2023) https://doi.org/10.1016/j.ijbiomac.2023.126056
11. Drug delivery based on a supramolecular chemistry approach by using chitosan hydrogels; D. Ailincai, S. Morariu, I. Rosca, I. Sandu, **L. Marin**; *International Journal of Biological Macromolecules* 248, 125800 (2023) https://doi.org/10.1016/j.ijbiomac.2023.125800
12. Quaternized chitosan (nano)fibers: A journey from preparation to high performance applications; **L. Marin***, B.-I. Andreica, A. Anisiei, S. Cibotaru, M. Bardosova, E.M. Materon, O.N. Oliveira; *International Journal of Biological Macromolecules* 242, 125136 (2023) 10.1016/j.ijbiomac.2023.125136
13. TEGylated Phenothiazine-Imine-Chitosan Materials as a Promising Framework for Mercury Recovery; S. Cibotaru, D. Ailincai, B.I. Andreica, X. Cheng, **L. Marin***; *Gels* 8(11), 692 (2022) https://doi.org/10.3390/gels8110692

14. Biocompatible drug delivery systems able to co-deliver antifungal and antiviral agents; D. Ailincai, M. Bercea, L. Mititelu-Tartau, **L. Marin**; *Carbohydrate Polymers* 298, 120071 (2022) https://doi.org/10.1016/j.carbpol.2022.120071
15. Self-Healing Chitosan Hydrogels: Preparation and Rheological Characterization; A. M. Craciun, S. Morariu, **L. Marin***; *Polymers* 14 (13), 2570 (2022) https://doi.org/10.3390/polym14132570
16. Pegylation of phenothiazine-A synthetic route towards potent anticancer drugs; S. Cibotaru, V. Nastasa, A.I. Sandu, A. C. Bostanaru, M. Mares, **L. Marin***; *Journal of Advanced Research* 37, 279-290 (2022) https://doi.org/10.1016/j.jare.2021.07.003
17. Chitosan crosslinking with a vanillin isomer toward self-healing hydrogels with antifungal activity; M.-M. Iftime, I. Rosca, A.-I. Sandu, **L. Marin**; *International Journal of Biological Macromolecules* 205, 574–586 (2022) https://doi.org/10.1016/j.ijbiomac.2022.02.077
18. Biocompatible Chitosan-Based Hydrogels for Bioabsorbable Wound Dressings; R. Lungu, M.A. Paun, D. Peptanariu, D. Ailincai, **L. Marin**, M.V. Nichita, V.A. Paun, V.P. Paun; *Gels* 8, 107 (2022) https://doi.org/10.3390/gels8020107
19. Fluorescent chitosan-BODIPY macromolecular chemosensors for detection and removal of Hg2+ and Fe3+ ions; D. Wang, **L. Marin**, XJ. Cheng; *International Journal of Biological Macromolecules* 198, 194-203 (2022) https://doi.org/10.1016/j.ijbiomac.2021.12.075
20. Iminoboronate-chitooligosaccharides hydrogels with strong antimicrobial activity for biomedical applications; D. Ailincai, I. Rosca, S. Morariu, L. Mititelu-Tartau, **L. Marin**; *Carbohydrate Polymers* 276, 118727 (2022)
21. Chitosan crosslinking with pyridoxal 5-phosphate vitamer towards biocompatible hydrogels for *in vivo* applications, A.M. Craciun, L. Mititelu-Tartau, G. Pricope, **L. Marin***, *International Journal of Biological Macromolecules* 193, 1734-1743 (2021) https://doi.org/10.1016/j.ijbiomac.2021.10.228
22. Amphiphilic chitosan-g-poly(trimethylene carbonate) – a new approach for biomaterials design; B.I. Andreica, D. Ailincai, A.I. Sandu, **L. Marin***; *International Journal of Biological Macromolecules*, 193, 414-424 (2021) https://doi.org/10.1016/j.ijbiomac.2021.10.174
23. Chitosan based macromolecular probes for the selective detection and removal of Fe3+ ion; C.W. Li, **L. Marin**, X.J. Cheng; *International Journal of Biological Macromolecules* 186, 303-313 (2021) https://doi.org/10.1016/j.ijbiomac.2021.07.044
24. Phenothiazine-chitosan based eco-adsorbents: A special design for mercury removal and fast naked eye detection; A. Bejan, F. Doroftei, X. Cheng, **L. Marin***; *International Journal of Biological Macromolecules* 162, 1839-1848 (2020) https://doi.org/10.1016/j.ijbiomac.2020.07.232
25. Citryl-imine-PEG-ylated chitosan hydrogels – Promising materials for drug delivery applications; D. Ailincai, L. Mititelu-Tartau, **L. Marin**; *International Journal of Biological Macromolecules* 162, 1323-1337 (2020) https://doi.org/10.1016/j.ijbiomac.2020.06.218
26. Quaternary ammonium salts of chitosan. A critical overview on the synthesis and properties generated by quaternization; B.I. Andreica, X. Cheng, **L. Marin***; *European Polymer Journal* 139, 110016 (2020) https://doi.org/10.1016/j.eurpolymj.2020.110016
27. New formulations based on salicyl-imine-chitosan hydrogels for prolonged drug release; M.M. Iftime, L. Mititelu-Tartau, **L. Marin**; *International Journal of Biological Macromolecules* 160, 398-408 (2020) https://doi.org/10.1016/j.ijbiomac.2020.05.207
28. Fluorescent chitosan hydrogel for highly and selectively sensing of p-nitrophenol and 2, 4, 6-trinitrophenol; S. Xiong, **L. Marin***, L. Duan, X. Cheng; *Carbohydrate Polymers* 225, 115253 (2019) https://doi.org/10.1016/j.carbpol.2019.115253
29. Nanoporous furfuryl-imine-chitosan fibers as a new pathway towards eco-materials for CO_2 adsorption; **L. Marin***, B. Dragoi, N. Olaru, E. Perju, A. Coroaba, F. Doroftei, G. Scavia, S. Destri, S. Zappia, W. Porzio; *European Polymer Journal* 120, 109214 (2019) https://doi.org/10.1016/j.eurpolymj.2019.109214

30. Designing chitosan based eco-friendly multifunctional soil conditioner systems with urea controlled release and water retention; M-M. Iftime, G.L. Ailiesei, E. Ungureanu, **L. Marin***; *Carbohydrate Polymers* 223, 115040 (2019) https://doi.org/10.1016/j.carbpol.2019.115040
31. Chiral betulin-imino-chitosan hydrogels by dynamic covalent sonochemistry; M.-M. Iftime, **L. Marin***; *Ultrasonics&Sonochemistry*, 45, 238–247 (2018) https://doi.org/10.1016/j.ultsonch.2018.03.022
32. Chitosan hydrogelation with phenothiazine-based aldehyde: a synthetic approach toward highly luminescent biomaterials; A. Bejan, D. Ailincai, B. C. Simionescu, **L. Marin***, *Polymer Chemistry*, 18, 2359-2369 (2018)
33. Biocompatible chitosan-based hydrogels for potential application in local tumour therapy; A. M. Olaru, **L. Marin***, S. Morariu, G. Pricope, M. Pinteala, L. Tartau-Mititelu; *Carbohydrate Polymers* 179, 59–70 (2018) https://doi.org/10.1016/j.carbpol.2017.09.066
34. Salicyl-imine-chitosan hydrogels: Supramolecular architecturing as a crosslinking method toward multifunctional hydrogels; M.-M.Iftime, S. Morariu, **L. Marin***; *Carbohydrate Polymers*, 165, 39–50 (2017), https://doi.org/10.1016/j.carbpol.2017.02.027
35. Development of biocompatible glycodynameric hydrogels joining two natural motifs by dynamic constitutional chemistry; **L. Marin***, D. Ailincai, S. Morariu, L. Tartau-Mititelu; *Carbohydrate Polymers*, 170, 60–71 (2017) https://doi.org/10.1016/j.carbpol.2017.04.055
36. Dual crosslinked iminoboronate-chitosan hydrogels with strong antifungal activity against Candida planktonic yeasts and biofilms; D. Ailincai, **L. Marin***, S. Morariu, M. Mares, A. C. Bostanaru, M. Pinteala, B. C. Simionescu, M. Barboiu; *Carbohydrate Polymers* 152, 306–316 (2016) https://doi.org/10.1016/j.carbpol.2016.07.007
37. Imino-chitosan biopolymeric films. Obtaining, self-assembling, surface, and antimicrobial properties; **L. Marin***, D. Ailincai, M. Mares, E. Paslaru, M. Cristea, V. Nica, B. C. Simionescu; *Carbohydrate Polymers* 117, 762–770 (2015) https://doi.org/10.1016/j.carbpol.2014.10.050
38. **L. Marin,** S. Morariu, M.C. Popescu, A. Nicolescu, C. Zgardan, B.C. Simionescu, M. Barboiu, Out-of-Water Constitutional Self-Organization of Chitosan–Cinnamaldehyde Dynagels, Chemistry – A European Journal 20, 4814–4821 (2014) https://doi.org/10.1002/chem.201304714
39. Chitosan as matrix for bio-polymer dispersed liquid crystal systems; **L Marin***, M. C. Popescu, A. Zabulica, H. Uji-I, E. Fron; *Carbohydrate Polymers* 95, 16–24 (2013) https://doi.org/10.1016/j.carbpol.2013.02.028
40. **Luminita Marin**, Iuliana Stoica, Mihai Mares, Valentina Dinu, Bogdan C. Simionescu, Mihai Barboiu, Antifungal vanillin–imino-chitosan biodynameric films, *Journal of Materials Chemistry B* 27, 3353–3358, (2013) https://doi.org/10.1039/C3TB20558D
41. **Luminita Marin**, Bogdan C. Simionescu, Mihai Barboiu, Imino-chitosan biodynamers, *Chemical Communications*, 48, 8778–8780, (2012) https://doi.org/10.1039/C2CC34337A