

Curriculum vitae

Dr. Luminita Marin – Senior Researcher III

“Petru Poni” Institute of Macromolecular Chemistry, Iasi, Romania

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Education

Ph.D. in Chemistry in 2007, “Petru Poni” Institute of Macromolecular Chemistry, Iasi, Romania, thesis title: “Synthesis and study of some new compounds with liquid crystal properties”

M. Sc. in Chemistry in 2002, “Al. I. Cuza” University, Iasi, Romania, specialization: “Physical Organic Chemistry”

B.Sc. in Chemistry in 1996, “Al. I. Cuza” University, Iasi, Romania

1987 – 1991 Chemistry High School in Vaslui, Romania

Career/Employment

2010 – present, Senior Researcher III, “Petru Poni” Institute of Macromolecular Chemistry Iasi

2008 – 2010, Researcher, “Petru Poni” Institute of Macromolecular Chemistry Iasi

2001 – 2008, Researcher Assistant, “Petru Poni” Institute of Macromolecular Chemistry Iasi

1997 – 2001, Chemistry Teacher, Feredeni-Deleni School, Iasi

Work experience

May – July 2013, Postdoctoral Researcher, Institut Européen des Membranes Montpellier, France

April – June 2011, Postdoctoral Researcher, Institut Européen des Membranes Montpellier, France

June 2008, Visiting Scientist/Researcher, Institute of Thin Film Technology and Microsensorics, Teltow, Germany

November 2007, Visiting Scientist/Researcher, Center of Polymer Chemistry, Zabrze, Polonia

October – November 2006, Visiting Scientist/Researcher, Center of Polymer Chemistry, Zabrze, Polonia

January – July 2006, Visiting Scientist/Researcher, Istituto per lo Studio delle Macromolecole, Milan, Italy

Research activity

Scientific papers in the domain of Schiff base derivatives (low molecular weight compounds and polymers), liquid crystals, conductive polymers, luminescent polymers, field effect transistors and chitosan based biopolymers.

Experience in synthesis and experimental data analysis (infrared spectroscopy, proton and carbon nuclear magnetic resonance (solution and solid state), ultraviolet spectroscopy, photoluminescence spectroscopy, polarized light microscopy, differential scanning calorimetry, small and wide angle X-ray diffraction, thermogravimetric analysis, atomic force microscopy, scanning electron microscopy, transmission electron microscopy, so on).

Experience with the above experimental equipment

Reviewer for more of 90 papers for journals as: Polymer, RSCAdvances, European Polymer Journal, Soft Materials, Liquid Crystals, Journal of Molecular Structure, Journal of Physical Chemistry, Optical Materials, Synthetic Metals, Advances in Polymer Technology, Reactive and Functional Polymers, Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Termochimica Acta, Journal of Applied Polymer Science, e-Polymers, Journal of Inorganic & Organometallic Polymers & Materials, Journal of Macromolecular Science Pure and Applied Chemistry, and so on.

45 ISI papers (one of them have been chosen as “The Best of Soft Materials” in 2009 and one of “the most-cited articles from 2007-2009” and “the most-cited articles from 2008-2010” in the same journal.

2 invited lectures; 1 lecture;

28 oral presentations (15 at international meetings and 13 at national meetings)

1 book; 4 book chapters

330 citations, 212 citations without self-citations, according to web of Science

h-index: 11

Researcher ID: F-7588-2011

Awards

Romanian Academy Prize “Costin D. Nenitescu” for 2006

List of publications

1. V. Cozan, E. Avram, **L. Marin**, C. Racles, "Calculation of group contribution of molar glass transition function (Yg) for 2-chloromethylene-1,4-phenylene units – application to chemical modification reaction of polysulfones", *Eur.Polym.J.* 39 (2), 397-400 (2003) – short communication
2. V. Cozan, M. Sava, **L. Marin**, M. Brumă, "Synthesis and characterization of novel arylidene and cardo ester bismaleimides and poly(aminoaspartimide)s therefrom", *High Perform. Polym.* 15 (3), 301-318, (2003)
3. **L. Marin***, V. Cozan, „Liquid crystalline azomethines. The effect of sulfonyl group on the liquid crystalline properties”, *Analele Stiintifice ale Universitatii "Al. I. Cuza" Iasi XII*, 65 – 70 (2004)
4. **L. Marin***, M. Brumă, „Aplicații ale polimerilor cu proprietăți de cristale lichide termotrope”, *Mater. Plast. (Bucharest)*, 41(4), 240 – 244 (2004)
5. **L. Marin***, V. Cozan, “Cristale lichide polimere. Terminologie si concepte”, *Mater. Plast. (Bucharest)* 42 (1), 28-34 (2005)
6. **L. Marin***, V. Cozan, “Synthesis of new aromatic aldehydes useful for the preparation of azomethine mesogens”, *Mater. Plast. (Bucharest)* 42(2), 143-145 (2005)
7. **L. Marin***, V. Cozan, M. Bruma, ”Synthesis and study of new symmetric azomethine trimers containing biphenyl units”, *Rev. Roum. Chim.* 50(7-8), 649-653 (2005)
8. V. Cozan, **L. Marin**, M. Bruma, “Preparation and study of new phenolic azomethine compounds”, *Rev. Roum. Chim.* 50(7-8), 641-648 (2005)
9. **L. Marin***, V. Cozan, M. Bruma, „Cristale lichide polimere cu mezogen in catena principala. Corelatii structura - proprietati”, *Mater. Plast. (Bucharest)* 42 (3), 239-244 (2005)
10. **L. Marin***, V. Cozan, M. Bruma, V. C. Grigoras, “Synthesis and thermal behavior of new poly(azomethine-ether)”, *Eur. Polym. J.* 42 (5), 1173-1182 (2006)
11. **L. Marin***, V. Cozan, M. Bruma, “Comparative study of new thermotropic polyazomethines”, *Polym. Adv. Technol.* 17 (9-10), 664-672 (2006)
12. **L. Marin***, “Polimeri cristale lichide termotrope. Controlul stabilitatii termice”, *Mater. Plast. (Bucharest)* 43 (2), 100-105 (2006)
13. **L. Marin***, V. Cozan, “New Thermotropic Azomethines Containing Sulfonyl Group”, *Rev. Roum. Chim.* 51 (7-8), 675 – 681 (2006)
14. **L. Marin***, S. Ciocilteu, “Cristale lichide termotrope. Tipuri de mezogeni”, *Mater. Plast. (Bucharest)*, 43(4), 288 - 291 (2006)
15. S. Destri, W. Porzio, **L. Marin***, M. D. Damaceanu, M. Bruma, “New thermotropic oligomers designed for FET applications”, *J. Optoelectr. Adv. Mater.* 9 (5), 1337 – 1341 (2007)
16. G. H. Rusu, A. Airinei, M. Rusu, P. Prepeliță, **L. Marin**, V. Cozan, I. I. Rusu, „On the electronic transport mechanism in thin films of some new poly(azomethine sulfone)s”, *Acta Materialia*, 55 (2), 433 - 442 (2007)
17. W. Porzio, S. Destri, M. Pasini, U. Giovanella, **L. Marin**, M. D. Damaceanu, M. Campione, “Solid state properties of oligomers containing dithienothiophene or fluorene residues suitable for FET devices”, *Thin Solid Films* 515, 7318 – 7323 (2007)
18. **L. Marin***, M. D. Damaceanu, D. Timpu, “New thermotropic liquid crystalline polyazomethines containing luminescent mesogens”, *Soft Materials*, 7(1), 1-20 (2009)
19. **L. Marin***, S. Destri, W. Porzio, F. Bertini, “Synthesis and characterization of new azomethine derivatives exhibiting liquid crystalline properties”, *Liquid Crystals*, 36(1), 21 – 32 (2009)
20. M.D. Damaceanu, **L. Marin**, T. Manicke, M. Bruma, “Solid-state properties of mesomorphic copolymers containing oxadiazole and fluorene units”, *Soft Materials*, 7(3), 164 – 184 (2009)

21. **L. Marin***; E. Perju, "Polysulfone as polymer matrix for a novel polymer-dispersed liquid crystals system", *Phase Transitions*, 82(7), 507-518, (2009)
22. M. Ciobanu, **L. Marin**, V. Cozan, M. Bruma, "Aromatic polysulfones used in sensor in sensor applications", *Reviews on Advanced Materials Science* 22, 89 - 96 (2009)
23. Radu-Dan Rusu, Mariana-Dana Damaceanu, **Luminita Marin**, Maria Bruma, "Copoly(peryleneimide)s Containing 1,3,4-Oxadiazole Rings: Synthesis and Properties", *Journal of Polymer Science: Part A: Polymer Chemistry*, 48, 4230–4242 (2010)
24. **L. Marin***, E. Perju, "Optical response of cyanoazomethine liquid crystal droplets in PDLC films based on a polysulfone matrix", *J. Optoelectron. Adv. Mater.*, 12, 1378–1384 (2010)
25. **L. Marin***, D. Timpu, V. Cozan, G. I. Rusu, A. Airinei, "Solid State Properties of Thin Films of New Copoly(azomethine-sulfone)s", *Journal of Applied Polymer Science*, 120, 1720–1728 (2011)
26. **L. Marin***, A. Zabolica, M. Sava, "New symmetric azomethinic dimer: the influence of structural heterogeneity on the liquid crystalline behavior", *Liquid Crystals*, 38:4, 433-440, (2011)
27. E. Perju, **L. Marin**, V. C. Grigoras, M. Bruma, "Thermotropic and optical behaviour of new PDLC systems based on a polysulfone matrix and a cyanoazomethine liquid crystal", *Liquid Crystals*, 38:7, 893-905(2011)
28. **L. Marin***, E. Perju, M. D. Damaceanu, "Designing thermotropic liquid crystalline polyazomethines based on fluorene and/or oxadiazole chromophores", *European Polymer Journal* 47, 1284–1299, (2011)
29. M. Rusu, A. Airinei, G. G. Rusu, **L. Marin**, V. Cozan, P. Rambu, I. Caplanus, G. I. Rusu, On the Electrical and Optical Properties of Some Poly(Azomethine Sulfone)s in Thin Films, *Journal of Macromolecular Science Part B-Physics*, 50(7), 1285-1297, (2011)
30. **L. Marin**, B.C. Simionescu, M. Barboiu, "Imino-chitosan biodynamers", *Chem. Commun.*, 48, 8778–8780, (2012)
31. M.D. Damaceanu, R.D. Rusu, M. Bruma, **L. Marin**, Self-organised films of polyimides containing perylene discotic mesogens, *Revue Roumaine de Chimie*, 57(9-10), 791-797 (2012)
32. **L. Marin***, A. Arvinte, "Mesomorphic Compounds Containing Chromophoric Mesogens for Opto-Electronic Applications", *Materiale Plastice*, 50(1), (2013)
33. **L. Marin**, V. Harabagiu, A. van der Lee, A. Arvinte, M. Barboiu, "Structure-directed functional properties of symmetrical and unsymmetrical Br-substituted Schiff-bases", *Journal of Molecular Structure*, 1049 377–385, (2013)
34. **L. Marin**, I. Stoica, M. Mares, V. Dinu, B. C. Simionescu, M. Barboiu, "Antifungal vanillin–imino-chitosan biodynamic films", *Journal of Materials Chemistry B* , 27, 3353-3358, (2013)
35. **L. Marin***, A. Zabolica, M. Sava, "Symmetric Liquid Crystal Dimers Containing a Luminescent Mesogen: Synthesis, Mesomorphic Behavior, and Optical Properties", *Soft Materials*, 11:1, 32-39 (2013)
36. A. Zabolica, M. Balan, D. Belei, M. Sava, B. C. Simionescu, **L. Marin***, "Novel luminescent phenothiazine-based Schiff bases with tuned morphology. Synthesis, structure, photophysical and thermotropic characterization", *Dyes and Pigments* 96, 686-698, (2013)
37. **L. Marin***, M-C. Popescu, A. Zabolica, H. Uji-I, E. Fron, "Chitosan as matrix for bio-polymer dispersed liquid crystal systems", *Carbohydrate Polymers* 95(1):16-24, (2013)
38. A. Zabolica, E. Perju, M. Bruma, **L. Marin***, "Novel luminescent liquid crystalline polyazomethines. Synthesis and study of thermotropic and photoluminescent properties", *Liquid Crystals* 4, 252-262 (2014)
39. M. Barboiu, A. Meffre, Y.M. Legrand, E. Petit, **L. Marin**, M. Pinteala, A.V.D. Lee, "Frustrated ion-pair binding by heteroditopic macrocyclic receptors", *Supramolecular Chemistry* 26, 223-228 (2014)
40. **L. Marin**, S. Moraru, 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)

41. **L. Marin***, D. Ailincăi, E. Paslaru, „Monodisperse PDLC composites generated by use of polyvinyl alcohol boric acid as matrix”, *RSC Advances* 4, 38397-38404 (2014)
42. **L. Marin***, A. Zăbulica, I.A. Moleavin, “Luminescent guest–host composite films based on an azomethine dye in different matrix polymers”, *Optical Materials* 38, 290-296 (2014)
43. **L. Marin***, D. Ailincăi, M. Mares, E. Paslaru, M. Cristea, V. Nica, B. C. Simionescu, “Imino-chitosan biopolymeric films. Obtaining, self-assembling, surface and antimicrobial properties”, *Carbohydrate Polymers* 117, 762-770 (2015)
44. E. Perju, E. Paslaru, **L. Marin***, Polymer dispersed liquid crystal composites for bio-applications. Thermotropic, surface and optical properties”, *Liquid Crystals*, 42, 370-382 (2015)
45. D. Belei, C. Dumea, E. Bicu, **L. Marin***, ”Phenothiazine and pyridine-*N*-oxide based AIE-active triazoles: synthesis, morphology and photophysical properties”, *RSC Advances* , 5, 8849-8858 (2015)
46. E. Perju, L. Ghimpu, G. Hitruc, V. Harabăgiu, M. Bruma, **L. Marin***, Organic-inorganic hybrid nanomaterials based on inorganic oxides and a mesomorphic polyazomethine, *High Performance Polymers*, 27, 546-554 (2015)
47. **L. Marin**, A. van der Lee, S. Shova, A. Arvinte, M. Barboiu, Molecular amorphous glasses toward large azomethine crystals with aggregation-induced emission, *New Journal Of Chemistry*, 39, 6404-6420 (2015)