



Ana-Lavinia Matricala (căs. Vasiliu)

Cetățenie: română

☎ (+40)769626443

Data nașterii: 01/03/1991

Gen: Feminin

✉ E-mail: vasiliu.lavinia@icmpp.ro

📍 Adresă: Str. Luminii, nr. 16, 707410 Valea Lupului (România)

EXPERIENȚA PROFESIONALĂ

Asistent de cercetare

Institutul de Chimie Macromoleculară "Petru Poni" [01/10/2014 – În curs]

Localitatea: Iași

Țara: România

EDUCAȚIE ȘI FORMARE PROFESIONALĂ

Training SEM avansat

Ronexprim [07/2021]

Adresă: Iași (România)

Training SEM

Ronexprim [02/2020]

Adresă: Iași (România)

Scurt stagiul de cercetare

Institutul de Cercetare a Polimerilor [05/2017]

Adresă: Dresden (Germania)

Scurt stagiul de cercetare

Institutul de Cercetare a Polimerilor [09/2016]

Adresă: Dresden (Germania)

Teză de doctorat

Institutul de Chimie Macromoleculară "Petru Poni" [2016 – 2021]

Adresă: Iași (România)

Domeniul (domeniile) de studiu: Chimie

Diplomă de master

Universitatea Tehnică "Gheorghe Asachi", Facultatea de Inginerie Chimică și Protecția Mediului [2014 – 2016]

Adresă: Iași (România)

Domeniul (domeniile) de studiu: Inginerie Chimică

Diplomă de licență

Universitatea de Medicină și Farmacie "Gr. T. Popa", Facultatea de Bioinginerie Medicală [2010 – 2014]

Adresă: Iași (România)

Domeniul (domeniile) de studiu: Științe inginerești aplicate

Diplomă de Bacalaureat

Colegiul "Costache Negruzzi" [2006 – 2010]

Adresă: Iași (România)

COMPETENTE LINGVISTICE

Limbă(i) maternă(e):

română

Altă limbă(Alte limbi):

engleză

COMPREHENSIVNE ORALĂ C2 CITIT C2 SCRIS C2

EXPRIMARE SCRISĂ C2 CONVERSAȚIE C2

PERMIS DE CONDUCERE

Permis de conducere: B

ACTIVITATE ȘTIINȚIFICĂ [2014 - PREZENT]

26 articole indexate ISI

5 articole indexate B+

1 capitol de carte

1 articol publicat in extenso în volumele unor manifestări științifice internaționale

3 proceeding-uri internaționale

1 proceeding național

14 comunicări orale internaționale

4 comunicări orale naționale

9 postere internaționale

1 poster național

5 proiecte (membru al echipei)

2 stagii de cercetare

ANEXĂ. Diseminarea rezultatelor

Articole ISI

1. Chemical Content Variations and Morphological Changes Evaluation of Incisors Enamel Induced by Chronic Fluoride Intoxication; E. Mihalas, A. Maxim, A. Balan, **L. Matricala**, D.C. Maxim, V. Toma, A. Petcu; *Revista de Chimie*, 66 (6), 843-846, 2015
2. Highly Stretchable Composites from PDMS and Polyazomethine Fine Particles; C. Racles, V.E. Musteata, A. Bele, M. Alexandru, C. Tugui, **A.L. Matricala**; *RSC Advances*, 5 (124), 102599-102609, 2015
3. The Role of Chronic Exposure to Amoxicilin/Clavulanic Acid on the Developmental Enamel Defects in Mice; E. Mihalas, **L. Matricala**, A. Chelmuş, N. Gheţu, A. Petcu, S. Paşca; *Toxicologic Pathology*, Ian. 44(1), 61-70, 2016
4. Ageing behavior of the silicone dielectric elastomers in simulated marine environment; A. Bele, G. Stiubianu, S. Vlad, C. Tugui, C. D. Varganici, **L. Matricala**, D. Ionita, D. Timpu and M. Cazacu; *RSC Adv.*, 6, 8941-8955, 2016
5. In vitro evaluation of morphological integrity of dental enamel exposed to carbamide peroxide-based bleaching agent; A. Murariu, R. Vasluianu, **L. Matricala**, I. Stoica, N. C. Forna; *Revista de Chimie*, 67 (10), 2103-2105, 2016
6. Hybrid Nanostructures Containing Sulfadiazine Modified Chitosan as Antimicrobial Drug Carriers; B.S. Munteanu, R.P. Dumitriu, L. Profire, L. Sacarescu, G.E. Hitruc, E. Stoleru, M. Dobromir, **A.L. Matricala**, C. Vasile; *Nanomaterials* 6(11), 207, 2016
7. Microcapsules of Calcium Carbonate and pH-sensitive Polymers; **A.L. Vasiliu**, M. Mihai, B.C. Simionescu; *Rev. Roum. Chim.*, 62(4-5), 333-338, 2017
8. Iron oxide nanoparticles as dielectric and piezoelectric enhancers for silicone elastomers; M. Iacob, C. Tugui, V. Tiron, A. Bele, S. Vlad, T. Vasiliu, M. Cazacu, **A.L. Vasiliu**, C. Racles; *Smart Mater. Struct.*, 26 (10), 105046, 2017
9. Multi-analytical characterization of Cucuteni pottery; A.V. Oancea, G. Bodi, V. Nica, L.E. Ursu, M. Drobeta, C. Cotofana, **A.L. Vasiliu**, B.C. Simionescu, M. Olaru; *Journal of the European Ceramic Society*, 37(15), 5079-5098, 2017
10. The effect of ortho-phosphoric acid etching application on enamel surface. ATR-FTIR and SEM studies; A. Murariu, M. Zaltariov, **L. Vasiliu**, A. Balan, C. Savin, M. Gavrilă, N. C. Forna *Revista de Chimie*, 68, 781-785, 2017
11. All-silicone elastic composites with counter-intuitive piezoelectric response, designed for electromechanical applications; C. Racles, M. Dascalu, A. Bele, V. Tiron, M. Asandulesa, C. Tugui, **A.-L. Vasiliu**, M. Cazacu, *Journal of Materials Chemistry C*, 5, 6997 – 7010, 2017

12. CaCO₃/Ion Exchanger Composites as Sorbents for Dyes; M. Mihai, F. Doroftei, **A.-L. Vasiliu**, I. Bunia; *Rev. Roum. Chim.*, 62(6-7), 499-504, 2017
13. Auto-template microcapsules of CaCO₃/pectin and nonstoichiometric complexes as sustained tetracycline hydrochloride delivery carriers; M. Mihai, S. Racovita, **A.-L. Vasiliu**, F. Doroftei, C. Barbu-Mic, S. Schwarz, C. Steinbach, F. Simon; *ACS Applied Materials & Interfaces*, 9 (42), 37264–37278, 2017
14. Assessment of chemicals released in the marine environment by dielectric elastomers useful as active elements in wave energy harvesters; M.F. Zaltariov, A. Bele, **L. Vasiliu**, L. Gradinaru, N. Vornicu, C. Racles, M. Cazacu; *Journal of Hazardous Materials*, Aug 4 (341), 390-403, 2018
15. Conductive stretchable composites properly engineered to develop highly compliant electrodes for dielectric elastomer actuators; A. Bele, C. Tugui, M. Asandulesa, D. Ionita, **L. Vasiliu**, G. Stiubianu, M. Iacob, C. Racles, M. Cazacu; *Smart Materials and Structures*, 27, 105005, 2018
16. Photocatalytic activity of ZnO nanostructures grown on electrospun CAB ultrafine fibers; P. Pascariu, L. Olaru, **A. L. Matricala**, N. Olaru; *Applied Surface Science*, 455, 61-69, 2018
17. Complex calcium carbonate/polymer microparticles as carriers for aminoglycoside antibiotics; S. Racovita, **A. L. Vasiliu**, A. Bele, D. Schwarz, C. Steinbach, R. Boldt, S. Schwarz, M. Mihai; *RSC Advances*, 8, 23274-23283, 2018
18. In vitro evaluation of enamel surface treated with fluoride after bleaching and etching erosive processes; R. I. Vasluianu, N. C. Forna, E. R. Baci, M. Zaltariov, **L. Vasiliu**, A. Murariu; *Revista de Chimie*, 69, 1714-1717, 2018
19. Antioxidant/Antibacterial Electrospun Nanocoatings Applied onto PLA Films; B. S. Munteanu, L. Sacarescu, **A.-L. Vasiliu**, G. E. Hitruc, G. M. Pricope, M. Sivertsvik, J. Thomas Rosnes, C. Vasile; *Materials*, 11, 1973, 1-18, 2018
20. Polymeric Biomaterials with Complimentary Role in Joint Endoprosthesis. II. Compositional and morpho-structural analysis; D. Mihailescu, D. N. Mihai, L. Savin, **L. Vasiliu**, V. Grigorescu, A. Patrascu, M. I. Popa; *Materiale Plastice*, 56, 3, 2019
21. Porous thiourea-grafted-chitosan hydrogels: Synthesis and sorption of toxic metal ions from contaminated waters; C. A. Ghiorghita, K. B. I. Borchert, **A. L. Vasiliu**, M. M. Zaharia, D. Schwarz, M. Mihai; *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 607, Article 125504/1-12, 2021
22. Multifunctional CaCO₃/polyelectrolyte sorbents for heavy metal ions decontamination of synthetic waters; M.-M. Zaharia, F. Bucatariu, F. Doroftei, D.-F. Loghin, **A.-L. Vasiliu**, M. Mihai; *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 613, Article 126084/1-12, 2021
23. Elastic Composites with PDMS matrix and Polysulfone-Supported Silver Nanoparticles as

Filler; C. Racles, M. Asandulesa, V. Tiron, C. Tugui, N. Vornicu, B.-I. Ciubotaru, M. Mičušík, M. Omastová, **A.-L. Vasiliu**, C. Ciomaga; *Polymer*, 217, 123480, 1-46, 2021

24. In situ CaCO₃ mineralization controlled by carbonate source within chitosan-based cryogels; **A.-L. Vasiliu**, M.V. Dinu, M.M. Zaharia, D. Peptanariu, M. Mihai; *Materials Chemistry and Physics*, 272 (1), 125025, 2021

25. Design of multifunctional composite materials based on acrylic ion exchangers and CaCO₃ as sorbents for small organic molecules; M.-M. Zaharia, **A.-L. Vasiliu**, M.-A. Trofin, D. Pamfil, F. Bucatariu, S. Racovita, M. Mihai; *Reactive and Functional Polymers*, 166, 104997, 2021

26. Hydrophobic biocompatible composites designed by a nonwoven material and polymer controlled CaCO₃ crystal growth for skin treatment application; **A.-L. Vasiliu**, M.M. Zaharia, M.M. Bazarghideanu, I. Rosca, D. Peptanariu, M. Mihai, *ACS*, 2021 (trimisă la publicat)

Articole indexate B+

1. Technological characteristics of the Cucuteni C pottery from Poduri–Dealul Ghindaru; F. Mățau, V. Nica, **A.-L. Matricala**, A. Stancu; *Studia Antiqua et Archaeologica* 21(2), 123–145, 2016

2. Diagenetic analysis and historical interpretations. Case studies from eastern Romania; F. Mățau, **A.L. Matricală**, A. Bele, I. Rusu, D.L. Gorgan, N. Bolohan; *Studia Antiqua et Archaeologica* 23(2): 227–247, 2017

3. Investigație metodologică asupra posibilității caracterizării porozității ceramice cu ajutorul analizei automate a imaginilor digitale; G. Bodi, **A.-L. Vasiliu**, A. V. Oancea, M. Olaru; *Cercetări Istorice (serie nouă)*, XXXVI, Iași, 2017, p. 55-80, ISSN 1453-3960

4. Morphological and chemical aspects in mice teeth after long-term PAW administration; A.-C. Bostanaru, E. Hnatiuc, F. Doroftei, **L. Vasiliu**, I. Rosca, V. Nastasa, M. Mares; *Lucrări științifice. Seria Medicină Veterinară*, 2017, ISSN 1454-7406

5. Technological issues of the shell-tempered ware from Gârcina (Neamț County, Romania); F. Mățau, R. Munteanu, V. Nica, M. Pintilei, **A.L. Vasiliu**, A. Stancu; *Studia Antiqua et Archaeologica* 24 (2), 2018

Capitole de carte

1. G. Barjoveanu, C. Teodosiu, M. Mihai, I. Morosanu, D. Fighir, **A.-L. Vasiliu**, F. Bucatariu, Capitol 11. Life cycle assessment for eco-design in product development, în *Assessing the sustainability progress: frameworks, tools and case studies* (publicată sub contract Elsevier no. 846739), ISB N: 606798 (data estimată a publicării: Aprilie **2022**)

Articole publicate in extenso în volumele unor manifestări științifice internaționale

1. Auto-templating composite microcapsules based on CaCO₃ and pectins; M. Mihai, **A.-L. Vasiliu**, S. Schwarz; ICCE-25, 25th Annual International Conference on Composites and Nano Engineering, 16 - 22 Iulie, 2017, Roma, Italia

"Proceeding"-uri internationale

1. Accelerated aging behaviour of dielectric silicone elastomers under controlled conditions; M. Cazacu, A. Bele, G. Stiubianu, **L. Matricala**, S. Vlad; Fifth international conference on Electromechanically Active Polymer (EAP) transducers & artificial muscles, 9-10 iunie 2015, Tallinn, Estonia
2. Ultrafinefibers of Cellulose Acetate Butyrate Electrospun from 2- Methoxyethanol - Dimethylformamide Systems; L. Olaru, **A. L. Matricala**, N. Olaru; The 3rd CEEP Workshop on Polymer Science, Septembrie 23-26, 2015 Iași, Romania
3. Long thermal interactions of PAW with normal tooth structure and different dental biomaterials; A.-C. Bostănaru, E. Hnatiuc, I. Roșca, **A.L. Vasiliu**, M. Doroftei, L. Ursu, L.I. Ailincăi, V. Năstasă, M. Mareș; The 8th edition of the International Conference "Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies, 25 - 28 august 2016, Constanta, Romania

"Proceeding"-uri nationale

1. Paste recipes and raw materials of the Cucuteni C ware from easterns Romania; F. Mățău, R. Munteanu, V. Nica, M. Pintilei, **A.L. Vasiliu**, A. Stancu; ArheoVest, Nr. VI: In Memoriam Marian Gumă, Interdisciplinaritate în Arheologie, 24 noiembrie, Timișoara, 2018

Comunicări orale internationale

1. Mineral Content Variations and Morphological Changes of Mice Incisors Enamel Associated with Chronic Fluoride Overexposure; E. Mihalaș, D.C. Maxim, A. Coroabă, N. Ghețu, **L. Matricală**, 20th Congress of the Balkan Stomatological Society: New Interdisciplinary Approaches in Oral and General Rehabilitation, aprilie 2015, București, România
2. Polyelectrolyte Complexes as Colloidal Dispersion - Complex Templates for CaCO₃ Crystals Growth; M. Mihai, S. Racovița, F. Doroftei, **A.-L. Matricala**, C. Barbu-Mic, 12th International Conference on Colloid and Surface Chemistry, May 16 - 18, 2016, Iași, Romania (**keynote**)
3. Long thermal interactions of PAW with normal tooth structure and different dental biomaterials; A.-C. Bostănaru, E. Hnatiuc, I. Roșca, **A.L. Vasiliu**, M. Doroftei, L. Ursu, L.I. Ailincăi, V. Năstasă, M. Mareș; The 8th edition of the International Conference "Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies, 25 - 28 august 2016, Constanta, Romania
4. Electron Microscopy for Study of Materials; **A.L. Vasiliu**, 2nd FEI & Ronexprim Workshop;

Latest Advances in Electron Microscopy, 18 Octombrie 2016, Iași, România

5. Ion exchanger/ CaCO_3 composites as sorbents for ionic molecules; M. Mihai, F. Doroftei, **L. Vasiliu**, I. Bunia, The 6th International Conference Ecological & Environmental Chemistry-2017, March 2-3, 2017, Chișinău, Republic of Moldova

6. Zinc Oxide Nanocrystals Growth on Cellulose Acetate Butyrate Ultrafine Fiber Mats for Photocatalytic Degradation of Organic Dyes; P. Pascariu, **A.L. Vasiliu**, N. Olaru, 9th Cristofor I. Simionescu Symposium - Frontiers in Macromolecular and Supramolecular Science, 12-14 iunie 2017, Iași, Romania

7. Auto-Templating Composite Microcapsules Based On CaCO_3 and Pectins; M. Mihai, **A.-L. Vasiliu**, S. Schwarz, ICCE-25, 25th Annual International Conference on Composites and Nano Engineering, July 16 - 22, 2017, Roma, Italia

8. Microcapsules based on calcium carbonate and pH-sensitive polymers as drug delivery systems; M. Mihai, **A.-L. Vasiliu**, F. Doroftei, C. Barbu-Mic, S. Racovita, 20th International Conference on Composite Structures, 4-7 Septembrie, 2017, Paris, Franța

9. Composite materials designed by bioinspired crystal growth and polymeric additives; M. Mihai, **A.-L. Vasiliu**, F. Doroftei, S. Racovita, 20th International Conference on Composite Structures, 4-7 Septembrie, 2017, Paris, Franța

10. Morphological and chemical aspects in mice teeth after long-term PAW administration; A.-C. Bostanaru, E. Hnatiuc, F. Doroftei, **L. Vasiliu**, I. Rosca, V. Nastasa, M. Mares; 56th Annual Meeting of Veterinary Sciences - "Towards a Global Health", 19 – 20 October 2017, Iași, România

11. Synthesis and characterization of ion exchange resins based on acrylic copolymers with high affinity to different heavy metal ions; M.-M. Zaharia, F. Bucatariu, L.-M. Petrila, **A.-L. Vasiliu**, M. Mihai; Materials, Methods & Technologies International Conference, 19-22 August, 2021, Burgas, Bulgaria

12. Nano-silver in-situ synthesis in zwitterionic beads, as antimicrobial inorganic/organic composites; M. Mihai, M.-M. Zaharia, C.-A. Ghiorghita, M.M. Bazarghideanu, **A.-L. Vasiliu**, M.-A. Trofin; Materials, Methods & Technologies International Conference, 19-22 August, 2021, Burgas, Bulgaria

13. Hydrophobic biocompatible CaCO_3 /cellulose material with potential application in wound dressing; **A.-L. Vasiliu**, M.-M. Zaharia, M.M. Bazarghideanu, I. Rosca, D. Peptanariu, M. Mihai; *MACRO Iasi*, 7-9 Octombrie, 2021, Iasi, Romania

14. Ion exchangers/ CaCO_3 composites as sorbents for small organic molecules; **A.-L. Vasiliu**, M.M. Zaharia, M.-A. Trofin, F. Bucatariu, S. Racovita, M. Mihai; *Macro Youth*, 19 Noiembrie, 2021, Iasi, Romania

Comunicări orale naționale

1. Studiul experimental privind implicația amoxicilinei în etiologia sindromului MIH, E. Mihalăș, **L. Matricală**, D.C. Maxim; A XXI-a Conferință Națională "Prevenirea afecțiunilor stomatologice" dedicată Zilei Organizației Mondiale a Sănătății, Iași, aprilie 2015
2. Studiul prin microscopie electronică a unor fire de sutură resorbabile; **L. Matricala**; Zilele Științifice Studentești, Iași, mai 2015
3. Analiza cantitativă a porozității ceramicii cu ajutorul microscopiei optice. Studiu metodologic exploratoriu; G. Bodi, **A.-L. Vasiliu**, A. V. Oancea, M. Olaru; „Acta Moldaviae Meridionalis” XXX, 28 - 29 septembrie 2017, Vaslui
4. Caracterizarea porozității ceramicii cu ajutorul analizei automate a imaginilor digitale. Studiu preliminar; G. Bodi, A. V. Oancea, **A.-L. Vasiliu**, M. Olaru; Simpozionul Național „Vasile Pârvan”, 5-6 Octombrie 2017, Bacau

Postere internaționale

1. Ultrafinefibers of Cellulose Acetate Butyrate Electrospun from 2- Methoxyethanol - Dimethylformamide Systems; L. Olaru, **A. L. Matricala**, N. Olaru; The 3rd CEEP Workshop on Polymer Science, Septembrie 23-26, 2015 Iași, Romania
2. Microcapsules based on calcium carbonate and pH-sensitive polymers; M. Mihai, F. Doroftei, S. Racovita, **A.-L. Matricala**, C. Barbu-Mic; 8th Cristofor I. Simionescu Symposium – Frontiers in Macromolecular and Supramolecular Science, 29 Mai - 3 iunie 2016, Iași, Romania
3. Technological interplay: relationship between painted and shell tempered pottery at Cucuteni-Cetățuia (Eastern Romania); F. Matau, V. Nica, I. G. Breaban, **A. L. Matricala**, A. Stancu; 8th Mid-European Clay Conference, 4-8 iulie 2016, Košice, Slovakia
4. Long thermal interactions of PAW with normal tooth structure and different dental biomaterials; A.-C. Bostănaru, E. Hnatiuc, I. Roșca, **A.L. Vasiliu**, M. Doroftei, L. Ursu, L.I. Ailincăi, V. Năstasă, M. Mares; The 8th edition of the International Conference "Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies", 25 - 28 august 2016, Constanta, Romania
5. Cucuteni-A Pottery Production in Eastern Romania: Insights from Compositional Analysis; F. Matau, I.G. Breaban, V. Nica, **A.-L. Matricala**, A. Bele, A. Stancu, 2nd European Mineralogical Conference; 11-15 septembrie 2016, Rimini, Italia
6. Aromatic polyimide membranes with tunable properties; D. Serbezeanu, A.-M. Ipate, **A.-L. Vasiliu**, T. Vlad-Bubulac; XXXIth edition of the International Congress of "Apollonia" University of Iasi - "By promoting excellence, we prepare the future", 1st – 3rd of March 2021, Iasi, Romania
7. Non-isothermal degradation kinetic study of new multicomponent polymer systems for flame

retardant coatings; L. Rosu, C.-D. Varganici, F. Mustata, D. Rosu, A.-L. Vasiliu; 6th Central and Eastern European Conference on Thermal Analysis and Calorimetry – CEEC – TAC 6, 20 – 24 iulie 2021, Split, Croatia

8. Soft materials as zwitterionic porous microparticles with drug delivery capabilities; **A.-L. Vasiliu**, M.-A. Trofin, S. Vasiliu, Ș. Racoviță, D.F. Loghin, M. Mihai; Interfaces International Conference, 21-25 Septembrie, 2021, Sardinia, Italia

9. Morphological study of some epoxy resin with doxo – based oligophosphonate S-IPNs; **A.-L. Vasiliu**, C.-D. Varganici, D. Roșu, F. Mustață, L. Roșu; ZAI Progress in Organic and Macromolecular Compounds 28 edition, 7-9 oct 2021

Postere naționale

1. Copolimeri carboximetil amidon-g-poli(lactic-co-glicolic acid) pentru aplicații medicale. Sinteză și caracterizare; N. Tudorachi, R. Lipsa, **L. Matricala**, G.L. Ailiesei, A.P. Chiriac; workshop Nouăți în domeniul nanoparticulelor magnetice: obținere, proprietăți și aplicații ale acestora; 1 iulie 2016, ICMPP, Iași, Romania

Proiecte de cercetare (membru al echipei)

1. Microcapsule pe bază de carbonat de calciu și polimeri sensibili la pH, materiale avansate de eliberare controlată a medicamentelor; PN-II-RU-TE- 2014-4-1433; Marcela Mihai; 2015-2017

2. Innovative Electrospun Membranes based on Phosphorus-containing Polymers for Protective Clothing; PN-III-P1-1.1-TE-2019-0639; Diana Serbezeanu; 2020-2022

3. Quartz sand/polyelectrolyte composite microparticles with high loading/release of some inorganic/organic compounds from polluted waters, PN-III-P2-2.1-PED-2019-1996, Florin Bucatariu, Nov 2020 - Feb 2021

4. The behaviour of new multicomponent polymeric systems in simulated environmental conditions for flame retardant coating materials; PN-III-P1-1.1-TE-2019-0604; Cristian-Dragos Varganici, 2020-2021

5. Zwitterionic porous microparticles containing zein and betaine moieties with antimicrobial activity and drug delivery capabilities; PN-III-P4-ID-PCE-2020-1541; Marcela Mihai; 2021-2023