



Curriculum Vitae

Informatii personale

Nume /Prenume

Adresa

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Data nasterii

Blaga Alexandra Cristina

Universitatea Tehnica Gheorghe Asachi Iasi, Romania

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Experiența profesională

Perioada

Activități și responsabilități
principale

Conferențiar universitar

2022-prezent

- activități didactice de curs si laborator la disciplinele: Biotehnologii industriale, Enzimologie, Microbiologie industrială si alimentară, Microbiologie aplicată, Biotehnologii în protecția mediului

Numele și adresa
angajatorului

Tipul activității sau sectorul
de activitate

Universitatea Tehnică "Gheorghe Asachi" din Iași, Iași, România

Educație și cercetare în domeniul inginerie biochimică și biotehnologie

Experiența profesională

Perioada

Activități și responsabilități
principale

șef lucrări

2013-2022

- activități didactice de curs si laborator la disciplinele: Enzimologie, Microbiologie industrială si alimentară, Enzime si microorganisme în procesarea alimentelor, Biotehnologii industriale, Biologie celulară si moleculară

Numele și adresa
angajatorului

Tipul activității sau sectorul
de activitate

Universitatea Tehnică "Gheorghe Asachi" din Iași, Iași, România

Educație și cercetare în domeniul inginerie biochimică și biotehnologie

Experiența profesională

Perioada

Activități și responsabilități
principale

Asistent universitar

2008-2013

- activități didactice de laborator la disciplinele: Inginerie biochimică, Biotehnologie industrială, Bioreactoare, Enzimologie, Ingineria Proceselor Alimentare si Utilaje Specifice la anul IV, specializarea IB si CATB, Biotehnologie generală anul III
- activități didactice tip proiect la disciplina Bioreactoare și Biotehnologie la anul IV, IB
- coordonarea practicii de specialitate pentru anul III, IB

Numele și adresa
angajatorului

Universitatea Tehnică "Gheorghe Asachi" din Iași, Iași, România



Tipul activității sau sectorul de activitate	Educație și cercetare în domeniul inginerie biochimică și biotehnologie
Educație și formare	
Perioada	2011-2013
Calificarea / diploma obținută	Master specializarea Bioprocedee in domeniul agroalimentar master realizat in colaborare cu Universitatea Lille Franta
Disciplinele principale studiate / competențe profesionale dobândite	Conduite de Projets Enzymologie Biostatistica, Biomodelare, Technologies alimentaires
Numele și tipul instituției de învățământ / furnizorului de formare	Facultatea de Biologie, Universitatea "Alexandru Ioan Cuza" Iași, România
Perioada	2004-2010
Calificarea / diploma obținută	Doctor în Inginerie Chimică, Teza de doctorat: Separarea unor produse naturali prin pertractie
Disciplinele principale studiate / competențe profesionale dobândite	Strategia cercetării științifice Managementul proiectelor de cercetare Bioseparări, HPLC
Numele și tipul instituției de învățământ / furnizorului de formare	Universitatea Tehnică "Gheorghe Asachi" din Iași, Iași, România
Perioada	1999-2004
Calificarea / diploma obținută	Inginer chimist
Departament	Inginerie Biochimica
Numele și adresa angajatorului	Universitatea Tehnică "Gheorghe Asachi" din Iași, Iași, România
Publicatii principale	https://orcid.org/0000-0001-8351-4258 Scopus ID - 14025437900

1. Blaga, A.C., Dragoi, E.N., Cascaval, D. et al. Extraction of mandelic acid with ionic liquids: parametric study, model and process optimization with L-SHADE. *Sci Rep* **2025**, 15, 42677. <https://doi.org/10.1038/s41598-025-26825-0>
2. Blaga, A.C.; Parvulescu, O.C.; Cascaval, D.; Galaction, A.I. Efficient Recovery of Valeric Acid Using Phosphonium-Based Ionic Liquids. *Int. J. Mol. Sci.* **2025**, 26, 8970. <https://doi.org/10.3390/ijms26188970>
3. Turcov, D.; Paraschiv, M.; Blaga, A.C.; Tucaliuc, A.; Cascaval, D.; Galaction, A.-I. Natural Oils as Green Solvents for Reactive Extraction of 7-Aminocephalosporanic Acid: A Sustainable Approach to Bioproduct Recovery in Environmental Biotechnology. *Biomolecules* **2025**, 15, 1371. <https://doi.org/10.3390/biom15101371>
4. Blaga, A.C.; Cimpoesu, R.; Tataru-Farmus, R.-E.; Suteu, D. Eco-Friendly Biosorbents from Biopolymers and Food Waste for Efficient Dye Removal from Wastewater. *Polymers* **2025**, 17, 291. <https://doi.org/10.3390/polym17030291>
5. Dragoi, E.N., Blaga, A.C. (autor corespondent), Cascaval, D., Galaction, A.I. - Experimental, modeling and optimisation of adipic acid reactive extraction using ionic liquids, *Journal of Molecular Liquids*, 2024, 410, 125564, <https://doi.org/10.1016/j.molliq.2024.125564>
6. Maxim, C.; Blaga, A.C.; Cimpoesu, R.; Zinicovscaia, I.; Peshkova, A.; Danu, M.; Barna, A.S.; Suteu, D. Natural Antioxidants from *Acmella oleracea* Extract as Dermatocosmetic Actives. *Scientia Pharmaceutica* 2024, 92(3), 52. <https://doi.org/10.3390/scipharm92030052>
7. Blaga, A.C., Dragoi, E.N., Tucaliuc, A., Kloetzer L., Puitel A.C., Cascaval, D., Galaction, A.I. - Reactive extraction of muconic acid by hydrophobic phosphonium ionic liquids - Experimental, modelling and



- optimisation with Artificial Neural Networks, *Heliyon*, 2024, 10(16), e36113, <https://doi.org/10.1016/j.heliyon.2024.e36113>
8. Blaga, A.C.; Kloetzer, L.; Cascaval, D.; Galaction, A.-I.; Tucaliuc, A. Studies on Reactive Extraction of Itaconic Acid from Fermentation Broths. *Processes* **2024**, *12*, 725. <https://doi.org/10.3390/pr12040725>
 9. Blaga, A.C.; Dragoi, E.N.; Gal, D.G.; Puitel, A.C.; Tucaliuc, A.; Kloetzer, L.; Cascaval, D.; Galaction, A.I. - Selective separation of vitamin C by reactive extraction using ionic liquid: Experimental and modelling, *Journal of Industrial and Engineering Chemistry*, 2024, <https://doi.org/10.1016/j.jiec.2023.11.057>
 10. Blaga, A.C.; Gal, D.G.; Tucaliuc, A. Recent Advances in Muconic Acid Extraction Process. *Appl. Sci.* 2023, *13*, 11691. <https://doi.org/10.3390/app132111691>
 11. Blaga, A.C.; Dragoi, E.N.; Tucaliuc, A.; Kloetzer, L.; Cascaval, D. Folic Acid Ionic-Liquids-Based Separation: Extraction and Modelling. *Molecules* 2023, *28*, 3339. <https://doi.org/10.3390/molecules28083339>
 12. Blaga, A.C.; Dragoi, E.N.; Munteanu, R.E.; Cascaval, D.; Galaction, A.I. Gallic Acid Reactive Extraction with and without 1-Octanol as Phase Modifier: Experimental and Modeling. *Fermentation* 2022, *8*, 633. <https://doi.org/10.3390/fermentation8110633>
 13. Suditu G.D., Blaga A.C. (**autor corespondent**), Tataru-Farmus R.E., Zaharia C., Suteu D. - Statistical Analysis and Optimization of the Brilliant Red HE-3B Dye Biosorption onto a Biosorbent Based on Residual Biomass, *Materials* 2022, *15*(20), 7180; <https://doi.org/10.3390/ma15207180>
 14. Blaga, AC ; Tucaliuc, A; Kloetzer, L - Applications of Ionic Liquids in Carboxylic Acids Separation, *Membranes*, 2022, *12* (8), 771, <https://doi.org/10.3390/membranes12080771>
 15. Tucaliuc, A; Cislaru, A ; Kloetzer, L ; Blaga, AC (**autor corespondent**) - Strain Development, Substrate Utilization, and Downstream Purification of Vitamin C, *Processes*, 2022, *10* (8), 1595, <https://doi.org/10.3390/pr10081595>
 16. Blaga, AC; Tanasa, AM; Cimpoesu, R; Tataru-Farmus, RE; Suteu, D - Biosorbents Based on Biopolymers from Natural Sources and Food Waste to Retain the Methylene Blue Dye from the Aqueous Medium, *Polymers*, 2022, *14* (13), 2728, <https://doi.org/10.3390/polym14132728>
 17. Blaga, AC; Cascaval, D; Galaction, AI - Improved Production of alpha-Amylase by *Aspergillus terreus* in Presence of Oxygen-Vector, *Fermentation*, 2022, *8* (6), 271, <https://doi.org/10.3390/fermentation8060271>
 18. Blaga, AC; Zaharia C.; Suteu D. - Polysaccharides as support for microbial biomass-based adsorbents with applications in removal of heavy metals and dyes, *Polymers* 2021, *13*, 2893
 19. Lazar, RG; Blaga, AC (**autor corespondent**); Dragoi, EN; Galaction, AI; Cascaval, D - Application of reactive extraction for the separation of pseudomonic acids: Influencing factors, interfacial mechanism, and process modelling, *Canadian Journal Of Chemical Engineering*, 2021
 20. Lazar, RG; Blaga, AC (**autor corespondent**); Dragoi, EN; Galaction, AI; Cascaval, D - Mechanism, influencing factors exploration and modelling on the reactive extraction of 2-ketogluconic acid in presence of a phase modifier, *Separation and Purification Technology*, 255, 2021, 117740
 21. Tucaliuc, A; Blaga, AC (**autor corespondent**); Galaction, AI; Cascaval, D - Mupirocin: applications and production, *Biotechnology Letters*, 41, 4-5, 495-502, 2019
 22. Blaga, AC; Cascaval, D Cascaval; Kloetzer, L; Tucaliuc, A; Galaction, AI - Valorization Of Microalgal Biomass, *Environmental Engineering And Management Journal*, 17 (4), 2018, 841-854
 23. Blaga, AC; Ciobanu, C; Cascaval, D; Galaction, AI -Enhancement of ergosterol production by *Saccharomyces cerevisiae* in batch and fed-batch fermentation processes using n-dodecane as oxygen-vector, *Biochemical Engineering Journal*, 131, 2018, 70-76
 24. Cascaval, D; Blaga, AC (**autor corespondent**); Galaction, AI - Diffusional effects on anaerobic biodegradation of pyridine in a stationary basket bioreactor with immobilized *Bacillus* spp. cells, *Environmental Technology*, 39 (2), 2018, 240-252
 25. Folescu, Elena; Blaga, Alexandra Cristina (**autor corespondent**) - Utilization of olive oil as a potential oxygen-vector in stirred bioreactors, *Environmental Engineering And Management Journal*, 12 (3), 587-594, 2013
 26. Blaga, AC, T. Malutan - Selective Separation of Vitamin C by Reactive Extraction, *Journal Of Chemical Engineering Data*, 57 (2), pp 431–435, 2012
 27. Alexandra Cristina Blaga, Anca-Irina Galaction, Dan Cașcaval - Reactive extraction of 2-keto-gluconic acid. Mechanism and influencing factors, *Romanian Biotechnological Letters*, 15 (3), 5253-5259, 2010



28. Alexandra Cristina Blaga, Galaction AI, Cascaval D - Separation of Amino Acids from Their Mixture by Facilitated Pertraction with D2EHPA, Chemical And Biochemical Engineering Quarterly, 22(4), 439-446, 2008
29. Alexandra Cristina Blaga, Galaction AI, Cascaval D - Extraction and transport of basic amino acids through liquid membranes, Revista De Chimie, 58, (11), 1080-1084, 2007

Participari la manifestari stiintifice

1. Alexandra-Cristina Blaga, A Sustainable Approach for the Separation of Biologically Active Compounds, International Conference on Environment and Life Science (ICELS-25) 16th - 17th August 2025, Andorra la vella, Andorra
2. Innovative Separation of Valeric Acid Using Ionic Liquids: A Sustainable Approach Alexandra Cristina Blaga, Dan Cascaval, Anca Irina Galaction, EUROINVENT European Exhibition Of Creativity And Innovation, 2025 Iasi, Romania – **medalie de aur**
3. Novel Efficient Extraction of Mandelic Acid Using Ionic Liquids Alexandra Cristina Blaga, Dan Cascaval, Anca Irina Galaction, EUROINVENT European Exhibition Of Creativity And Innovation, 2025 Iasi, Romania – **medalie de aur**
4. A sustainable strategy for vitamin C production, Alexandra Cristina Blaga, Madalina Paraschiv, Gladiola Petroiu, Lenuta Kloetzer, Dan Cascaval, Anca Irina Galaction, EUROPOLITECHNICUS, 2025, Bucuresti, Romania – **medalie de aur**
5. Ionic Liquid Mediated Petraction For Vitamin C - Alexandra Cristina Blaga, Lenuța Kloetzer, Alexandra Tucaliuc, Dan Cascaval, Anca Irina Galaction, The 18th International Conference of Constructive Design and Technological Optimization in Machine Building Field – OPROTEH, 2024, Bacau, Romania
6. III.PO.09. Ionic liquids as green extractants for muconic acid separation, A.C. Blaga, A. Tucaliuc, L. Kloetzer, E.N. Dragoi, 13th International Conference on Materials Science and Engineering – BraMat 2024, 13-16.03.2024
7. F.53. Modelling And Optimization Of Adipic Acid Separation, Alexandra Blaga, Elena Niculina Dragoi, Dan Cascaval, Anca Irina Galaction, The 19th International Conference of Constructive Design and Technological Optimization in Machine Building Field, OPROTEH, Bacau, 2024, Romania
8. F.67. Biosorbent Based On Residual Biomass Of Saccharomyces Pastorianus Used In Orange 16 Retained In Dynamic Process, Daniela Suteu, Alexandra Blaga, Lacramioara Rusu, Alexandra Tanase, The 19th International Conference of Constructive Design and Technological Optimization in Machine Building Field, OPROTEH, Bacau, 2024
9. PRM-P02 Green approach for 2-ketogluconic acid separation, Blaga Alexandra Cristina, Gheorghe Asachi Technical University of Iasi, Romania, 3rd International Conference On Applied Science & Engineering, Theme: "Technological Developments & Modern Trends in Applied Science and Advanced Engineering", September 25-26 2023, Paris, France
10. RO.41.Green reactive extraction process for vitamin B9 separation, Alexandra Cristina Blaga, Lenuta Kloetzer, Dan Cascaval, Anca Irina Galaction, EUROINVENT 2023, Iasi, Romania – **medalie de argint**
11. RO.42. 2-Ketogluconic acid separation process using a phosphonium ionic liquid, Alexandra Cristina Blaga, Alexandra Tucaliuc, Anca Irina Galaction, Dan Cascaval, EUROINVENT 2023, Iasi, Romania
12. PO.5.1. Eco-process for lipids extraction from microalgae using ionic liquids - Alexandra Cristina Blaga, Lenuta Kloetzer, Alexandra Tucaliuc, International Conference on Environmental Engineering and Management (ICEEM), Iasi, 2023, Romania

Brevete

1. Cascaval D., Galaction A.I., Kloetzer L., Blaga A.C. *Procedeu de separare a benzilmetilaminei* (130964/2020)
2. Cascaval D., Galaction A.I., Postaru M., Blaga A.C. *Procedeu de separare a acetofenonei* (00130975/2020)
3. Cascaval D., Galaction A.I., Blaga A.C. *Procedeu de separare a acidului pantotenic* (00131311/2020)



4. Cascaval D., Galaction A.I., Blaga A.C. Procedeu de separare a acidului cinamic (00127015/2010)

Participări în programe de cercetare-dezvoltare naționale

1. Valorificarea superioară a biomasei prin recuperarea unor compusi valorosi, [BIOEXTR], PN-III-P1-1.1-TE-2021-0153, nr. TE 16 / 2022, 10/05/2022 - 09.05.2024, Director de proiect (valoare 450.000 RON)
2. COST: Green Chemical Engineering Network towards upscaling sustainable processes (CA18224) – GREENERING, MC Substitute, 2019-2023
3. Obținerea de materiale cu valoare adăugată prin valorificarea subproduselor industriale (AddValueMat), PN-III-P2-2.1-PED-2019-1063, Contract: 490/2020, 2020-2022, (director de proiect Prof. dr. habil. ing. Daniela Șuteu), membru în colectiv
4. Sisteme Hibride Fermentație/Reacție Enzimatică-Pertracție Sinergică pentru Producția de Compuși Chimici cu Aplicații Farmaceutice, Cosmetice și Alimentare - PN-III-P4-ID-PCE-2016-0100, 2017-2019, (director de proiect Prof.dr.ing. Dan Cașcaval), membru în colectiv
5. Microscale downstream processing toolbox for screening and process development (MICROTOOLS) Contract ERA-IB nr. 6-002/2013, 2013 – 2015, (director de proiect Prof.dr.ing. Dan Cașcaval), membru în colectiv
6. Dezvoltarea unor biocatalizatori noi pentru obținerea economică a unor sintoni chirali (SYNBIOCAT), PN-II-PT-PCCA-2011-3.1-1268, 2012-2016, contract nr. 124/2012, 2012- (responsabil partener TULAși Prof. dr. ing. Dan Cașcaval), membru în colectiv
7. Advanced separation of biosynthetic compounds by facilitated and synergetic pertraction, 2011-2014, PN-II-ID-PCE-2011-3-0088, contract nr. 207/2011 (director de proiect Prof.dr.ing. Dan Cașcaval), membru în colectiv
8. Photocatalysis for hydrogen production and fuel from biomass and waste water (FOTOCOMB), PN II-21048/2007, 2007-2010, (responsabil partener TULAși Prof. dr. ing. Dan Cașcaval), membru în colectiv
9. Advanced separation by pertraction (liquid membrane extraction) of natural compounds with medical, food and cosmetics uses - a priority in the current context of white biotechnology (PERBIO), PN II IDEI 57/2007, 2007-2010, (director de proiect Prof.dr.ing. Dan Cașcaval), membru în colectiv
10. COST: CM0903 - Utilisation of Biomass for Sustainable Fuels & Chemicals (UBIOCHEM)
11. Separation of some vegetal and microbial compounds by non-conventional techniques - reactive extraction and facilitated pertraction, 2007-2008 (CNCSIS-TD) – Director de proiect (valoare 50.000 RON)

Stagii de cercetare

Lille, France, Institut Charles Viollette INRAE, Université de Lille, Sciences et Technologies (16-27 March 2015)

LEPABE – Laboratory for Process Engineering, Environment, Biotechnology and Energy, Faculty of Engineering of the University of Porto – Chemical Engineering Department (3-10 June 2016)

Vienna University of Technology, Institute of Chemical Engineering, Research Area Biochemical Engineering (March 4th to 11th 2012)

University of Manchester, Faculty of Chemical Engineering and Analytical Science, Satake Centre for Grain Process Engineering (May 1st 2008 to July 31, 2008)

Denmark Technical University, Center for Bioprocess Engineering, Department of Chemical and Biochemical Engineering (August 3 to 22, 2009)

Summer School - "Biotechnologies for the Third Millenium Health " (July 15 to 29, 2007), for foreign students from European Union countries

Aptitudini și competențe personale



Limba maternă	Română									
Limbi străine cunoscute										
Autoevaluare	Înțelegere					Vorbire				Scriere
Nivel european (*)	Ascultare		Citire		Participare la conversație		Discurs oral		Exprimare scrisă	
Engleză	C2	Utilizator experimentat	C2	Utilizator experimentat	C1	Utilizator experimentat	C2	Utilizator experimentat	C1	Utilizator experimentat
Franceză	A2	Utilizator elementar	A2	Utilizator elementar	A1	Utilizator elementar	A1	Utilizator elementar	A1	Utilizator elementar
(*) Nivelul Cadrului European Comun de Referință Pentru Limbi Străine										

12.12.2025

Conf.dr.ing. Alexandra Cristina Blaga



Conf.univ.dr.ing. A. Blaga