



## Europass Curriculum Vitae



### Personal information

Name **LACATUSU Ioana**  
Address Turnul Chindiei street, no 9, 1 district, Bucharest, Romania  
Telephone (004) 021 4029041  
Fax (004) 021 3154193  
E-mail [ioana\\_laca@yoahoo.com](mailto:ioana_laca@yoahoo.com)  
Nationality Romanian  
Date of birth 18.08.1978  
Gender Female

### Work experience **I. Didactic activity**

**Dates** **October 2020 – present**

Occupation or position held *Professor*

Name and address of employer University "POLITEHNICA" of Bucharest  
Faculty of Chemical Engineering and Biotechnologies  
Department of Organic Chemistry "C. Nenitescu"  
Polizu Street No 1-7, 011061, Bucharest, Romania

**Dates** **February 2015 – September 2020**

Occupation or position held *Associate Professor*

Name and address of employer University "POLITEHNICA" of Bucharest  
Faculty of Applied Chemistry and Materials Science  
Department of Organic Chemistry "C. Nenitescu"  
Polizu Street No 1-7, 011061, Bucharest, Romania

**Dates** **September 2012 – January 2015**

Occupation or position held *Lecturer*

Name and address of employer University "POLITEHNICA" of Bucharest  
Faculty of Applied Chemistry and Materials Science  
Department of Organic Chemistry "C. Nenitescu"  
Polizu Street No 1-7, 011061, Bucharest, Romania

Activity type	High education and scientific research
Main activities and responsibilities	<p><b>Courses</b></p> <ul style="list-style-type: none"> <li>• <i>Food Biochemistry</i> (Bachelor cycle), year IV, Food Chemistry and Biochemical Technologies, Faculty of Applied Chemistry and Materials Science, University “Politehnica” Bucharest, 2012-present.</li> <li>• <i>Biochemistry</i> (Bachelor cycle), year II, Faculty of Applied Chemistry and Materials Science and Faculty of Biotechnical Systems Engineering, UPB, 2013-present.</li> <li>• <i>Phytopharmaceuticals</i> (Master cycle) “Biorefineries and bioproducts”, year II, Faculty of Applied Chemistry and Materials Science, UPB, 2019-present.</li> <li>• <i>Biosecurity and nutraceuticals</i> (Master cycle) “Life Sciences and Ecology” (SciVEC), year II, Faculty of Applied Chemistry and Materials Science, UPB, 2010-2014.</li> <li>• <i>Documentation in chemical engineering</i> (Bachelor cycle), year IV, for “Food Chemistry and Biochemical Technologies” and “Chemistry and Organic Substances Engineering, Petrochemistry and Carbochemistry”, Faculty of Applied Chemistry and Materials Science, UPB, 2012-2014.</li> </ul> <p><b>Seminars and laboratory activities</b></p> <ul style="list-style-type: none"> <li>• <i>Organic chemistry</i> (Bachelor cycle), Seminars and practical applications/ Laboratory, year II (FACSM, UPB)</li> <li>• <i>Ingredients and cosmetic formulations of</i> (Master Cycle), Pharmaceutical and Cosmetic Products, seminar, year II (FACSM, UPB)</li> <li>• <i>Food Biochemistry</i> (Bachelor cycle), Food Chemistry and Biochemical Technologies, Laboratory, year IV (FACSM, UPB)</li> <li>• <i>Additives and ingredients in the food industry</i> (Bachelor cycle), Food Products Control and Expertise, Laboratory, year II (FACSM, UPB)</li> </ul> <p><b>Guiding students, postgraduate students and PhD students</b></p> <ul style="list-style-type: none"> <li>• Coordination of dissertation thesis</li> <li>• Guiding students for Student Scientific Communication Sessions</li> <li>• Tutoring activities, year II, Bachelor cycle</li> <li>• Member of PhD guidance committees</li> </ul> <p><b>II. Research activities</b></p> <ul style="list-style-type: none"> <li>• Obtaining and characterisation of lipid nanostructures (SLNs and NLCs) by high shear homogenization (HSH) coupled with high pressure homogenization (HPH).</li> <li>• Exploitation of vegetable oils rich in fatty acids <math>\omega</math> - 3, 5, 6 and 9 (e.g. raspberry seed oil, grape seed oil, pomegranate seed oil, rice bran oil, amaranth seed oil, armory oil, saffron oil, etc.) for obtaining bioactive lipid nanocarriers which manifest different biological activities.</li> <li>• Co-encapsulation of two active principles with lipophilic and hydrophilic featured into lipid nanocarriers delivery systems.</li> <li>• Conditioning of vegetable-based lipid nanocarriers into topical formulations with applicability in the cosmetic and pharmaceutical field.</li> <li>• Use of a wide range of plant extracts (e.g. orange peel extract, ornamental shrub, begonia flowers, green extract, etc.) for development of hybrid silica - silsesquioxan nanostructures with amplified fluorescent properties.</li> </ul>
Name and address of employer	University “POLITEHNICA” of Bucharest Faculty of Applied Chemistry and Materials Science Department of Organic Chemistry “C. Nenitescu” Polizu Street No 1-7, 011061, Bucharest, Romania
Activity type	Scientific research
Dates	2006 – 2012
Occupation or position held	Scientific researcher

Activities and main responsibilities	<ul style="list-style-type: none"> <li>• Coordination of research activities: encapsulation of vitamins and flavones in different silica - silsesquioxan hybrid networks; obtaining solid lipid nanoparticles loaded with sunscreens and antioxidants.</li> <li>• Design of new nanostructured lipid carriers, by using different vegetable oils.</li> <li>• Activities associated with the physico-chemical characterizations of the nanostructured materials (e.g. FT-IR, UV-VIS, DSC, DLS, TEM, HPLC, etc.).</li> <li>• Aspects regarding environmental pollution, with the correlation of environmental-health effects.</li> </ul>
Name and address of employer	University "POLITEHNICA" of Bucharest Research Centre for Environmental Protection and Ecological Technologies Polizu Street, no 1-7, Bucharest, 011061, Romania
Activity type	Fundamental and applied research
<b>Dates</b>	<b>2002 – 2009</b>

Activities and main responsibilities	<p><b>Teaching activity (associated professor)</b></p> <ul style="list-style-type: none"> <li>• Course "<i>Biosecurity and nutraceutical products</i>", year II, Master "Life Science and Ecology", Faculty of Applied Chemistry and Science Materials, Department of Inorganic Chemistry.</li> <li>• Laboratory activities for the course "<i>Elementary Chemistry I and II</i>", year I, Department of Inorganic Chemistry, Faculty of Applied Chemistry and Materials Science, University „Politehnica” of Bucharest.</li> <li>• Seminars and laboratory activities, <i>Biochemistry</i>, year III, Department of Physical Metallurgy, Faculty of Materials Science and Engineering, University „Politehnica” of Bucharest.</li> <li>• Seminars and laboratory activities for the course "<i>Functional Compounds</i>", year II, Department of Physical Metallurgy, Faculty of Materials Science and Engineering, University „Politehnica” of Bucharest.</li> </ul>
Name and address of employer	University "POLITEHNICA" of Bucharest Faculty of Applied Chemistry and Materials Science Department of Inorganic Chemistry Polizu Street No 1-7, 011061, Bucharest, Romania.

## Education and training

<b>Dates</b>	<b>2019</b>
Title of qualification awarded	<p><b>PhD Habilitated certificate</b> (PhD supervisor in the field of Chemical Engineering, from July 2019) Habilitation thesis "Hybrid materials and lipid nanocarriers enriched in bioactive herbal principles: synthesis, characterisation and pharmaceutical performance" The field of PhD studies "Chemical Engineering", Nr. 4615/30.07.2019, issued by the Ministry of National Education.</p>
Name and type of organisation providing education and training	University "POLITEHNICA" of Bucharest Faculty of Applied Chemistry and Materials Science Polizu Street No 1-7, 011061, Bucharest, Romania
<b>Dates</b>	<b>2010 – 2013</b>
Title of qualification awarded	<p><b>Postdoctoral stage</b> Postdoctoral Program for Advanced Research in Nanomaterials - Nanomat, Project POSDRU/89/1.5/S/54785 Research topic "Nanostructured lipid carriers for improving the bioavailability of nutraceuticals", coordinator Prof. Dr. Dragos Ciuparu</p>
Name and type of organisation providing education and training	Petroleum-Gas University of Ploiesti, Calea Bucharest Street no. 39, 100680, Ploiesti, Romania

<b>Dates</b>	<b>2006 – 2007</b>
Title of qualification awarded	<b>Postdoctoral stage</b> Postdoctoral Program within the CEEEX Project, code 8 Research topic: "High efficiency adsorbent materials for chromatographic detection of pollutants and contaminants", coordinator Prof. Dr. Aurelia Meghea
Name and type of organisation providing education and training	University "POLITEHNICA" of Bucharest Faculty of Applied Chemistry and Materials Science Polizu Street No 1-7, 011061, Bucharest, Romania
<b>Dates</b>	<b>2001 – 2006</b>
Title of qualification awarded	<b>PhD in Chemical Engineering</b> Thesis title " <i>Multipolar collectors by <math>\alpha</math>-hidroxioximes type used in ion flotation</i> ", coordinator: Prof. Dr. Ligia Stoica PhD in Chemistry no. 102, 06.09.2006 (according to Order M.E.C.T. no. 4871 of 07.08.2006).
Name and type of organisation providing education and training	University "POLITEHNICA" of Bucharest Faculty of Applied Chemistry and Materials Science Polizu Street No 1-7, 011061, Bucharest, Romania
Level in national or international classification	ISCED 6
<b>Dates</b>	<b>2001 – 2002</b>
Title of qualification awarded	<b>Master</b> Specialization "Fine inorganic syntheses" Dissertation thesis: "Obtaining nickel ferrite by precipitation - flotation", coordinator Prof. Dr. Ligia Stoica Diploma no. 519 of 14.04.2003 (Series F, No. 0001619)
The main disciplines/acquired professional competencies	Bioactive and biocompatible inorganic compounds; Inorganic polymers and heterocycles; Modelling of inorganic synthesis processes; Synthesis and characterization of zeolites; Reaction mechanisms in syntheses of inorganic compounds, etc.
Name and type of organisation providing education and training	University "POLITEHNICA" of Bucharest Faculty of Applied Chemistry and Materials Science Polizu Street No 1-7, 011061, Bucharest, Romania
<b>Dates</b>	<b>2000 – 2002</b>
Title of qualification awarded	<b>Master</b> Specialization "Multifunctional, natural and synthetic organic compounds" Dissertation thesis: "Non-steroidal anti-inflammatory drugs. Oxicams", coordinator Prof. Dr. Florea Cocu Diploma no. 55 of 25.02.2004 (Series C, No. 0004780)
The main disciplines/acquired professional competencies	Physiologically active organic compounds; Obtaining multifunctional and synthetic organic compounds; Protection and deprotection of organic compounds; MRI applications in organic chemistry; Structure and reactivity of organic compounds; Asymmetric syntheses.
Name and type of organisation providing education and training	University of Bucharest Faculty of Chemistry Regina Elisabeta street, No. 4-12, 3 district, 030018, Bucharest, Romania
<b>Dates</b>	<b>1996-2000</b>

Title of qualification awarded	<b>College bachelor's degree</b> Section of "Organic Chemistry". Thesis title " <i>Aromatic esters with industrial applications</i> ", coordinator Prof. Dr. Lucia Ivan Diploma no. 2683 of 20.07.2001 (Series S, Nr. 0034683)																						
The main disciplines/acquired professional competencies	Basics of organic chemistry and functions; Instrumental methods of analysis; Chemistry of organic compounds with mixed functions; General chemical technology; Physical chemistry of macromolecules; colloids; Materials chemistry and technology; Fine organic syntheses.																						
Name and type of organisation providing education and training	University of Bucharest Faculty of Chemistry Regina Elisabeta street, No. 4-12, 3 district, 030018, Bucharest, Romania																						
Level in national or international classification	ISCED 5																						
<b>Dates</b>	<b>1992 – 1996</b>																						
Title of qualification awarded	High school degree (Baccalaureate) Specialization: mathematics – physics Diploma No. 56 of 29.07.1996																						
Name and type of organisation providing education and training	High school no 1, Moreni, Dambovita																						
<b>Personal skills and Competences</b>																							
Mother tongue(s)	<b>Romanian</b> Romanian																						
Other language(s)	<b>English</b>																						
Self-assessment <i>European level (*)</i>	<table border="1"> <thead> <tr> <th colspan="2">Understanding</th> <th colspan="2">Speaking</th> <th colspan="2">Writing</th> </tr> <tr> <th colspan="2">Listening</th> <th colspan="2">Reading</th> <th colspan="2">Spoken interaction</th> <th colspan="2">Spoken production</th> </tr> </thead> <tbody> <tr> <td>B2</td> <td>Independent user</td> <td>B2</td> <td>Independent user</td> <td>B2</td> <td>Independent user</td> <td>B1</td> <td>Independent user</td> </tr> </tbody> </table>	Understanding		Speaking		Writing		Listening		Reading		Spoken interaction		Spoken production		B2	Independent user	B2	Independent user	B2	Independent user	B1	Independent user
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<b>Language</b>																							
	(*) <a href="#">Common European Framework of Reference for Languages</a>																						
Social skills and competences	<ul style="list-style-type: none"> <li>• Good communication and relationship skills;</li> <li>• Work team ability; building of a consolidated and competent research team;</li> <li>• Organizational spirit and skills in planning time and human resources;</li> <li>• Ability to analyze and synthesize information in the competence areas.</li> </ul>																						
Computer skills and abilities	Microsoft Office – Word, Excel, PowerPoint, Internet Explorer, Outlook etc.																						
<b>Additional information</b>	<b>Other qualification and specialization:</b> <ul style="list-style-type: none"> <li>• Research training in the frame of postdoctoral program, Laboratory of Molecular Chemical Engineering and Materials (CIMMA), University Anger, France, March – 26 April 2006, "<i>Synthesis of tetrathiaphulvalene (TTF) - Fullerene (C<sub>60</sub>) compounds</i>".</li> <li>• "<i>Quality control in trial labs – applied statistical methods</i>", organized course by S.C. FIATEST S.R.L, Bucharest 27-29 November 2006.</li> <li>• "<i>Uncertainty evaluation of measured in trial labs</i>", organized course by S.C. FIATEST S.R.L, Bucharest 06-08 December 2006.</li> <li>• "<i>The validation of trials analyses labs – practical aspects and informatics' devices</i>", organized course by S.C. FIATEST S.R.L, Bucharest 13-14 December 2006.</li> </ul>																						

**Scientometric indicators  
(April 2022)**

- *"Initiation in near infrared spectroscopy (NIR)"*, organized course by S.C. COMPORTER S.R.L., Bucharest, 1-2 October 2007.
- Number of citations from the Scopus (without self-citations) = 775
- Hirsh Index (Scopus) = 18

**Summary of scientific activity (Annex)**

- 68 papers published in international journals ISI Thompson Reuters (of which, 35 as main or corresponding author).
- 8 articles published in other national/international journals or in the volumes of scientific events.
- co-author of 5 books and 2 laboratory guidelines.
- a book chapter published in an international publishing house (Nova Publishing).
- co-author of 5 patents.
- 20 research projects (of which, 3 as director/project manager).
- over 40 participations in international scientific conferences.

**Awards and other elements  
for the recognition of  
scientific contributions**

**Awards and other elements for the recognition of scientific contributions**

- Prizes for the patent no. RO 131955, Publ. Data 30.05.2019, Lipid nanocarriers loaded with vegetal and synthetic principles and process for obtaining them, Lacatusu I., Badea N., Badea G., Moldovan L., Panteli IM, Rașit I., Popescu M., Bordei N, Stan R., Istrati D., Meghea A.:
  - ✓ Gold medal and excellence diploma at PRO INVENT International Salon, 15<sup>th</sup> Edition, March 22-24, 2017, Cluj, Romania.
  - ✓ Gold Medal at 9<sup>th</sup> EUROINVENT, Iasi, May 23-25, 2017, Iasi, Romania.
- Excellence diploma at the International Exhibition of Inventions and Innovations "Traian Vuia", 3<sup>rd</sup> Edition, June 7-9, 2017, Timisoara, Romania. Awarding the Research Results (2008 - present), category of articles, human resources: over 30 ISI articles awarded by UEFISCDI.
- Member of the Romanian Chemical Society.
- Reviewer of ISI international journals: Materials Science and Engineering C; Colloids and Surfaces A: Physicochemical and Engineering Aspects; Journal of Chemistry; Arabian Journal of Chemistry; Industrial Crops and Products. International Journal of Cosmetic Science; Colloids and Surfaces B: Biointerfaces.

### A. Representative publications

- Lacatusu I.**, Iordache T.A., Mihaila M., Mihaiescu D.E., Pop A.L., Badea N., Multifaced Role of Dual Herbal Principles Loaded-Lipid Nanocarriers in Providing High Therapeutic Efficacy, *Pharmaceutics* 2021, 13(9), 1511, FI/2021 = 6.072.
- Iordache T.A., Badea N., Mihaila M., Crisan S., Pop A.L., **Lacatusu\* I.**, Challenges in coopted hydrophilic and lipophilic herbal bioactives in the same nanostructured carriers for effective bioavailability and anti-inflammatory action, *Nanomaterials* 2021, 11 (11), 3035, FI/2021 = 5.076.
- Coc L.M.C., **Lacatusu I.**, Badea N., Barbinta-Patrascu M.E., Meghea A., Effective Lipid Nanocarriers Based on Linseed Oil for Delivery of Natural Polyphenolic Active, *Journal of Nanomaterials*, 2021, 8853941, FI/2021 = 2.986.
- Lacatusu I.**, Istrati D., Bordei N., Popescu M., Seciu A.M., Panteli L.M., Badea N., Synergism of plant extract and vegetable oils-based lipid nanocarriers: Emerging trends in development of advanced cosmetic prototype products, *Materials Science and Engineering C*, 108, 2020, 110412, FI/2019 = 5.88, ISSN 09284931, WOS:000510956400041.
- Arsenie L.V., **Lacatusu I.**, Oprea O., Bordei N., Bacalum M., Badea N.\* Synergistic effects of lipophilic and hydrophilic bioactives in the development of advanced nanostructured formulations, *Industrial Crops and Products*, 2020, FI/2019 = 4.244, ISSN 09266690.
- Lacatusu I.**, N. Badea N., Udeanu D., Coc L., Pop A., Cioates Negut C., Tanase C., Stan R., Meghea A. Improved anti-obesity effect of herbal active and endogenous lipids co-loaded lipid nanocarriers: Preparation, *in vitro* and *in vivo* evaluation, *Materials Science and Engineering C*, 2019, 99, 12-24, FI/2019 = 5.88, ISSN 09284931, WOS:000463121200002.
- Lacatusu I.**, Badea N., Badea G., Mihaila M., Ott C., Stan R., Meghea A., Advanced bioactive lipid nanocarriers loaded with natural and synthetic anti-inflammatory actives, *Chemical Engineering Science*, 2019, 200, 113-126, FI/2019 = 3.871, ISSN 00092509, WOS:000461418000011.
- Lacatusu I.**, Arsenie L.V., Popa O., Ovidiu Oprea, Badea N.\*, New cosmetic formulations with broad photoprotective and antioxidative activities designed by amaranth and pumpkin seed oils nanocarriers, *Industrial Crops and Products*, 2018, 123, 424-433, FI/2019 = 4.244, ISSN 09266690, WOS:000447103900048.
- Lacatusu I.**, Badea G., Popescu M., Bordei N., Istrati D., Moldovan L., Seciu A.M., Pandeli M.I., Rasit I., Badea N., Marigold extract, azelaic acid and black caraway oil into lipid nanocarriers provides a strong anti-inflammatory effect *in vivo*, *Industrial Crops and Products*, 2017, 109, 141-150, FI/2019 = 4.244, ISSN 09266690, WOS:000413880300018.
- Badea G., Badea N., Brasoveanu L., Mihaila M., Stan R., Istrati D., Balaci T. and **Lacatusu I.\***, Naringenin improves the sunscreen performance of vegetable nanocarriers, *New Journal of Chemistry*, 2017, 41, 480-492, FI/2019 = 3.288, ISSN 1144-0546, WOS:00039388720001.
- Lacatusu I.**, Badea N.\*, Badea G., Brasoveanu L., Stan R., Ott C., Oprea O. and Meghea A., Ivy leaves extract based – lipid nanocarriers and their bioefficacy on antioxidant and antitumor activities, *RSC Advances*, 2016, 6, 77243-77255, FI/2019 = 3.119, ISSN 2046-2069, WOS:000382482200015.
- Istrati D., **Lacatusu I.**, Bordei N., Badea G., Oprea O., Stefan L.M., Stan R., Badea N.\*, Meghea A., Phyto-mediated nanostructured carriers based on dual vegetable actives involved in the prevention of cellular damage, *Materials Science and Engineering C*, 2016, 64, 249-259, FI/2019 = 5.88, ISSN 09284931, WOS:000376547700030.
- Ott C., **Lacatusu I.**, Badea G., Grafu I.A. Istrati D. Babeanu N., Stan R., Badea N.\*, Meghea A. Exploitation of amaranth oil fractions enriched in squalene for dual delivery of hydrophilic and lipophilic actives, *Industrial Crops and Products*, 2015, 77, 342-352, FI/2019 = 4.244, ISSN 09266690, WOS:000366065200041.
- Lacatusu I.**, Badea N., Badea G., Oprea O., Mihaila M.A., Kaya D.A., Stan R.\*, Meghea A., Lipid nanocarriers based on natural oils with high activity against oxygen free radicals and tumor cell proliferation, *Materials Science and Engineering C*, 2015, 56, 88-94, FI/2019 = 5.88, ISSN 09284931, WOS:000359873900011.

- Badea G., **Lacatusu I.\***, Ott C., Badea N., Grafu I., Meghea A., Integrative approach in prevention and therapy of basal cellular carcinoma by association of three actives loaded into lipid nanocarriers, *J. of Photochemistry and Photobiology B: Biology*, 2015, 147, 1-8, FI/2019 = 4.383, ISSN 10111344, WOS:000354156000001.
- Badea G., **Lacatusu I.\***, Badea N., Ott C., Meghea A. Use of various vegetable oils in designing photoprotective nanostructured formulations for UV protection and antioxidant activity, *Industrial Crops and Products*, 2015, 67, 18-24, FI/2019 = 4.244, ISSN 09266690, WOS:000352039600004.
- Badea G., Bors A.G., **Lacatusu I.**, Oprea O., Ungureanu C., Stan R.\*, Meghea A., Influence of basil oil extract on the antioxidant and antifungal activities of nanostructured carriers loaded with nystatin, *Comptes Rendus Chimie*, 2015, 18(6), 668-677, FI/2019 = 2.223, ISSN 16310748, WOS:000357703400012.
- Mitreă E., **Lacatusu I.**, Badea N.\*, Ott C., Oprea O., Meghea A., New approach to prepare willow bark extract-lipid based nanosystems with enhanced antioxidant activity, *J. of Nanoscience and Nanotechnology*, 2015, 15(6), 4080-4089, FI/2019 = 1.10, ISSN: 15334880, WOS:000347435300009.
- Lacatusu I.**, Niculae G., Badea N., Stan R., Oprea O., Meghea A., Design of soft lipid nanocarriers based on bioactive vegetable oils with multiple health benefits, *Chemical Engineering Journal*, 2014, 246, 311-321, FI/2019 = 10.652, ISSN 1385-8947, WOS:000335552400004.
- Lacatusu I.**, Badea N., Niculae G., Bordei N., Stan R., Meghea A.\*, Lipid nanocarriers based on natural compounds: An evolving role in plant extract delivery, *European Journal of Lipid Science and Technology*, 2014, 116(12), 1708-1717, FI/2019 = 2.056, ISSN 1438-7697, WOS:000346068700013.
- Niculae G., **Lacatusu I.**, Bors A., Stan R.\* Photostability enhancement by encapsulation of  $\alpha$ -tocopherol into lipid-based nanoparticles loaded with an UV filter, *Comptes Rendus Chimie*, 2014, 17(10), 1028-1033, FI/2019: 2.223, ISSN 1631-0748, WOS:003447244000009.
- Niculae G., **Lacatusu I.**, Badea N., Stan R., Vasile B.S., Meghea A.\*, Rice bran and raspberry seed oil-based nanocarriers with self-antioxidative properties as safe photoprotective formulations, *Photochemical and Photobiological Sciences*, 2014, 13(4), 703-716, FI/2019 = 2.831, ISSN 1474-9092, WOS: 000333093000009.
- Niculae G., **Lacatusu I.**, Badea N., Meghea A., Stan R.\*, Influence of vegetable oil on the synthesis of bioactive nanocarriers with broad spectrum photoprotection, *Central European Journal of Chemistry* (transformed in *Open Chemistry*), 2014, 12(8), 837-850, FI/2019 = 1.216, ISSN 1895-1066, WOS:000335552400004.
- Lacatusu I.**, Mitreă E., Badea N.\*, Stan R., Oprea O, Meghea A., Lipid nanoparticles based on omega-3 fatty acids as effective carriers for lutein delivery. Preparation and *in vitro* characterization studies, *Journal of Functional Foods*, 2013, 5(3), 1260-1269, FI/2019 = 3.701, ISSN 1756-4646, WOS: 000322691600027.
- Lacatusu I.**, Badea N., Oprea O., Bojin D., Meghea A.\*, Antioxidant Activity of Solid Lipid Nanoparticles Loaded with Umbelliferone, *Soft Materials*, 2013, 11(1), 75-84, FI/2019 = 1.265, ISSN 1539-445X, WOS:000312440900011,.
- Niculae G., Badea N., Meghea A., Oprea O., Lacatusu I.\*, Coencapsulation of Butyl-Methoxydibenzoyl - methane and Octocrylene into Lipid Nanocarriers: UV Performance, Photostability and *in vitro* Release, *Photochemistry and Photobiology*, 2013, 89, 1085 – 1094, FI/2019 = 2.721, ISSN 0031-8655, WOS:000324033900011.
- Lacatusu I.**, Badea N.\*, Stan R., Meghea A., Novel bio-active lipid nanocarriers for the stabilization and sustained release of sitosterol, *Nanotechnology* 2012, 23, 455702 (13pp), FI/2019 = 3.551, ISSN 0957-4484, WOS: 000310579200018.
- Niculae G., **Lacatusu I.**, Badea N., Meghea A., Lipid nanoparticles based on butyl-methoxydibenzoylmethane: *in vitro* UVA blocking effect, *Nanotechnology*, 2012, 23, 315704 (10pp), FI/2019 = 3.551, ISSN 0957-4484, WOS:000306516100018.
- Lacatusu I.**, Badea N.\*, Oprea O., Bojin D., Meghea A., Highly antioxidant carotene – lipid nanocarriers: synthesis and antibacterial activity, *Journal of Nanoparticle Research*, 2012, 14, 902 (16pp), FI/2019 = 2.132, ISSN 1388-0764, WOS:000305328900035.
- Lacatusu I.**, Badea N., Manea A.M., Meghea A. Cryoprotectors Effect on Main Properties of Lipid Nanoparticles Loaded with Bio-active Compounds, *Journal of Optoelectronic and Advanced Materials*, 2012, 14(3-4), 336-343, FI/2019 = 0.631, ISSN 1454-4164, WOS:000304429900026.



- Lacatusu I.**, Badea N., Murariu A., Meghea A.\*, The Encapsulation Effect of UV Molecular Absorbers into Biocompatible Lipid Nanoparticles, *Nanoscale Research Letters*, 2011, 6, 73-82, FI/2019 = 3.581, ISSN 1931-7573, WOS:000290525700005.
- Lacatusu I.**, Badea N., Murariu A., Pirvu C. and Meghea A.\*, Vegetal nanoclusters in hybrid silica films prepared by sol-gel spin coating technique, *J. of Non-crystalline Solids*, 2011, 357(7), 1716-1723, FI/2019 = 2.929, ISSN 0022-3093, WOS:000290006900018.
- Lacatusu I.**, Badea N., Nita R., Murariu A., Miculescu F., Iosub I., Meghea A., Encapsulation of fluorescence vegetable extracts within a templated sol – gel matrix, *Optical Materials*, 2010, 32, 711-718, FI/2019 = 2.779, ISSN 0925-3467, WOS:000276702900013.
- Lacatusu I.**, Badea N., Bojin D., Iosub I., Meghea A., Silica polymeric networks templated with D-fructose – as host matrices for natural extracts immobilization, *Molecular Crystals and Liquid Crystals*, 2010, 521, 272-278, FI/2019 = 0.512, ISSN 1542-1406, WOS: 000278163400022.
- Lacatusu I.**, Badea N., Murariu A., Bojin D. and Meghea A., Effect of UV sunscreens loaded in solid lipid nanoparticles: a combined SPF assay and photostability, *Molecular Crystals and Liquid Crystals*, 2010, 523, 247-259, FI/2019 = 0.512, ISSN 1542-1406, WOS:000278163400022.
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