

L I S T A
lucrărilor științifice în domeniul disciplinelor din postul didactic

1. Teza de doctorat

Étude et modélisation des mécanismes de transport de gaz à travers des membranes zéolithe, 2006

2. Cărți și capitole în cărți publicate în ultimii 10 ani

1. G. Maria, C.L. Gîjiu, D. Dinculescu, M. Titica, G. Juncu, *O trecere în revistă a tehnologiilor neconvenționale pentru valorificarea resurselor naturale ieftine (gaz natural, cărbune inferior), a gazelor cu efect de seră (CO₂) și a biomasei regenerabile pentru producerea via metanol a unui număr mare de substanțe chimice cu valoare adăugată ridicată și combustibil prin utilizarea unor tehnologii bazate pe instrumente și concepte moderne de inginerie chimică și biochimică*, Ed. PRINTECH, București, 2020
2. D. Dinculescu, L. Gîjiu, *Analiza situațiilor de urgență în Ghid de evaluare a substanțelor și amestecurilor chimice din mediu. Vol. II. Reflecții, soluții și abordări în analiza și evaluarea riscurilor asociate substanțelor chimice (ghid) (coordonator Ion Durbacă)*, Ed. Universitară, 2016

3. Lucrări indexate ISI/BDI publicate în ultimii 10 ani

1. S. Ben Ameer, C.L. Gîjiu, M.-P. Belleville, J. Sanchez, D. Paolucci-Jeanjean, *Development of a multichannel monolithlarge-scale enzymatic membrane and application in an immobilized enzymatic membrane reactor*, J. Membr. Sci. 455 (2014) 330-340
2. R. Abejón, C.L. Gijiu, M.P. Belleville, D. Paolucci-Jeanjean, J. Sanchez-Marcano, *Simulation and analysis of the performance of tubular enzymatic membrane reactors under different configurations, kinetics and mass transport conditions*, J. Membr. Sci. 473 (2015) 189-200
3. R. Isopescu, C.L. Gîjiu, D.D. Dinculescu, *Hybrid systems for the separation of light hydrocarbon mixtures*, Revista de Chimie, 66 (2015) 259 – 264
4. C.L. Gîjiu, D.D. Dinculescu, I. Rău, G. Tihan, M. Ghica, *Modeling the drugs release from composite materials based on collagen*, Molecular Crystals and Liquid Crystals, 655 (1) (2017) 250-254
5. D.D. Dinculescu, C.L. Gijiu, V. Lavric, *Reactive Extraction Using Moving Liquid Membranes - Mathematical Model Calibration Through Experiments*, Revista de chimie, 68 (10) (2017) 2293-230
6. G. Maria, C.L. Gîjiu; C. Maria; C. Tociu, *Interference of the oscillating glycolysis with the oscillating tryptophan synthesis in the E. coli cells*, Computers & Chemical Engineering, 108 (2018) 395-407
7. G. Maria, G.; M. Mihalachi (Muscalu), C.L. Gîjiu, *Chemical engineering tools applied to simulate some conditions producing glycolytic oscillations in E.coli cells*, U.P.B. Sci. Bull., Series B, 80(2) (2018) 27-38
8. G. Maria, M. Mihalachi, C.L. Gîjiu, *In silico optimization of a bioreactor with an E. coli culture for tryptophan production by using a structured model coupling the oscillating glycolysis and tryptophan synthesis*, Chem. Eng. Res. & Des., 135 (2018) 207-221
9. G. Maria, M. Mihalachi, C.L. Gîjiu, *Model-based Identification of Some Conditions Leading to Glycolytic Oscillations in E. coli Cells*, Chemical and Biochemical Engineering Quarterly, 32(4) (2019) 523-533

10. G. Maria, C.L. Gîjiu, I. Cebanu, C. Maria, C. Tociu, *In-silico Optimization of a Batch Bioreactor for mAbs Production in Relationship to the Net Evolution of the Hybridoma Cell Culture*, *Revista de chimie*, 70 (8) (2019) 2985-2992
11. C.C. Pădurețu, R.D. Isopescu, C.L. Gîjiu, I. Rău, M.R. Apetroaei, V. Schroeder, *Optimization of chitin extraction procedure from shrimp waste using Taguchi method and chitosan characterization*, *Molecular Crystals and Liquid Crystals*, 695(1) (2019) 19-28
12. P. Tyagi, R. Chaturvedi, N.R. Gorhe, C.L. Gîjiu, *Electro-responsive epoxy-polypyrrole-cotton composites with enhanced flexural strength and water resistance*, *Materials Research Bulletin*, 137 (2021) 111197
13. B. Pribyl-Kranewitter, A. Beard, C.L. Gîjiu, D. Dinculescu, T.J. Schmidt, *Influence of low-temperature electrolyser design on economic and environmental potential of CO and HCOOH production: A techno-economic assessment*, *Renewable&Sustainable Energy Reviews*, 154 (2022) 111807
14. C.L. Gîjiu, R. Isopescu, D. Dinculescu, M. Memecica, M.R. Apetroaei, M. Anton, V. Schröder, I. Rău, *Crabs Marine Waste-A Valuable Source of Chitosan: Tuning Chitosan Properties by Chitin Extraction Optimization*, 14(21) (2022) 4492
15. Dinculescu, Daniel; Gijiu, Cristiana Luminita; Apetroaei, Manuela Rossemary; Isopescu, Raluca; Rau, Ileana; Schroder, Verginica, *Optimization of Chitosan Extraction Process from Rapana venosa Egg Capsules Waste Using Experimental Design*, *MATERIALS*, 525, 16(2), 525, 2023
16. Dinculescu, Daniel Dumitru; Apetroaei, Manuela Rossemary; Gijiu, Cristiana Luminita; Anton, Mirela; Enache, Laura; Schroder, Verginica; Isopescu, Raluca; Rau, Ileana, *Simultaneous Optimization of Deacetylation Degree and Molar Mass of Chitosan from Shrimp Waste*, *POLYMERS*, 16(2), 170, 2024
17. Schroder, Verginica; Gherghel, Daniela; Apetroaei, Manuela Rossemary; Gijiu, Cristiana Luminita; Isopescu, Raluca; Dinculescu, Daniel; Apetroaei, Miruna-Maria; Enache, Laura Elena; Mihai, Cosmin-Teodor; Rau, Ileana; Vochita, Gabriela, *α -Chitosan and β -Oligochitosan Mixtures-Based Formula for In Vitro Assessment of Melanocyte Cells Response*, *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*, 25(12), 6768, 2024
18. Cristiana Luminița GÎJIU, Raluca ISOPESCU, Paula POSTELNICESCU and Daniel DINCULESCU, *Heat transfer simulation for injection molding of polylactic acid parts*, *Revue Roumaine de Chimie*, 69(9), 2024
19. Maria, Gheorghe; Gijiu, Cristiana Luminita; Renea, Laura; Gheorghe, Daniela, *In-Silico optimal operating policies of a batch or a fed-batch bioreactor for mAb production using a hybridomacell culture*, *REVUE ROUMAINE DE CHIMIE*, 69(5-6), 263-278, 2024
20. Cristiana Luminița GÎJIU, Manuela Rossemary APETROAEI, Miruna-Maria APETROAEI, Raluca ISOPESCU, Mirela ANTON, Ileana RĂU and Verginica Schröder, *Optimization of chitosan extraction from crustacean exoskeleton wastes*, *Revue Roumaine de Chimie* 69(9), 2024
21. Valentina CIOCAN, Cristiana Luminița GÎJIU, *Analysis of the separation of acetonitrile-water mixture*, *Revue Roumaine de Chimie* 69(9), 2024
22. Geana, Elisabeta-Irina; Isopescu, Raluca; Ciucure, Corina-Teodora; Gijiu, Cristiana Luminita; Josceanu, Ana Maria, *Honey Adulteration Detection via Ultraviolet-Visible Spectral Investigation Coupled with Chemometric Analysis*, *FOODS*, 13(22), 3630, 2024
23. Gîjiu, Cristiana Luminita; Maria, Gheorghe; Renea, Laura, *In-Silico Optimization of a Bi-Enzymatic Reactor for Mannitol Production Using Pareto-Optimal Fronts*, *CHEMICAL ENGINEERING & TECHNOLOGY*, 48(1), e202300555, 2025

**Lucrări publicate în ultimii 10 anii în reviste și volume de conferințe cu referenți
(neindexate)**

- Reviste

1. C.L. Gîjiu, D. Dinculescu, M. Crișan, G. Maria, 2020, *Anniversary: Professor Dr. Ing. Gheorghe MARIA at 65 Years Old Teacher and Scientist*, Current Trends in Biomedical Engineering & Biosciences, United States

- Selecție cu maximum 20 lucrări în volume de conferințe

2. D. Dinculescu, L. Gîjiu, R. Isopescu, V. Lavric, *Modeling the Radwaste Treatment in Ion Exchange Columns, Conference Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reduction PRES'15*, Kuching Malaysia, 23-27 august 2015
3. J.G. Sanchez, R. Abejon, M.-P. Belleville, C.L. Gîjiu, D. Paolucci, *Modelling and simulation of a multi channel enzymatic membrane reactor*, 10th European Congress of Chemical Engineering ECCE10, 27 septembrie – 1 octombrie 2015, Nisa, Franța
4. R. Dima, F. Zamfirescu, C.L. Gîjiu, V. Dima *The rock salt dissolution parameters estimation along an inclined borehole*, International Conference on Chemistry and Chemical Engineering RICCCE 15, pg. S-4-34 - 35, sept. 2007, Sinaia, Romania
5. D. Dinculescu, C.L. Gîjiu, V. Lavric *Statistical optimum operating parameters search for the extraction-back-extraction column*, International Conference on Chemistry and Chemical Engineering RICCCE 15, pg. S-4-45 - 46, sept. 2007, Sinaia, Romania
6. R. Dima, C.L. Gîjiu, R. Isopescu, D.D. Dinculescu, Gh. Bătrînescu, *Ultrafiltration of Echinacea Purpurea extract*, International Conference on Chemistry and Chemical Engineering RICCCE 16, pg. S.IV.147 - 154, 9 – 12 septembrie 2009, Sinaia, Romania
7. R. Isopescu, M. Mihai, C.L. Gîjiu, *Carbon dioxide removal from flue gases by absorption into calcium hydroxide solutions*, International Conference on Chemistry and Chemical Engineering RICCCE 16, pg. S.IV.163 - 170, 9 – 12 septembrie 2009, Sinaia, Romania
8. Raluca Isopescu, Luminița Gîjiu, Daniel Dinculescu, *Hybrid systems for light hydrocarbons mixture separation*, International Conference on Chemistry and Chemical Engineering RICCCE 18, pg. S4 - 61, 4 – 7 septembrie 2013, Sinaia, Romania
9. R. Isopescu, C.L. Gîjiu, D.D. Dinculescu, D. Miroiu, V. Lavric, *Increasing Biofuel Productivity using Pervaporation as Primary Concentration Method*, International Conference on Chemistry and Chemical Engineering RICCCE 19, pg. S.IV.147 - 154, 2 – 5 septembrie 2015, Sibiu, Romania
10. Cristiana Luminița Gîjiu, Cristina Mișcoi, Daniel Dinculescu, Raluca Isopescu, *Enhancing Bioethanol Production Using Membrane Tools*, International Conference on Chemistry and Chemical Engineering RICCCE 20, 6 – 9 septembrie 2017, Poiana Brașov, Romania
11. Ariana Ivanciu, Cristiana Luminița Gîjiu, Raluca Isopescu, *Multi-objective optimization of ammonia synthesis reactor in two cooling methods*, International Conference on Chemistry and Chemical Engineering RICCCE 21, 4 – 7 septembrie 2019, Constanța-Mamaia, Romania
12. Andreea Lascu, Cristiana Luminita Gîjiu, Daniel Dinculescu, Raluca Isopescu, *HNO₃ synthesis in mono-and dual-pressure operating plants. Technical and cost comparative analysis*, International Conference on Chemistry and Chemical Engineering RICCCE 21, 4 – 7 septembrie 2019, Constanța-Mamaia, Romania
13. Marina Mihalachi, Gheorghe Maria, Cristiana Luminita Gîjiu, *In-silico modulate glycolytic oscillator in modified E. coli to control bioprocesses of industrial interest*, International Conference on Chemistry and Chemical Engineering RICCCE 21, 4 – 7 septembrie 2019, Constanța-Mamaia, Romania
14. George Rizea, Cristiana Luminita Gîjiu, Raluca Isopescu, *Natural Gas Dehydration by Absorption and Membrane Separation: Process Simulation and Optimization*, International Conference on

Chemistry and Chemical Engineering RICCCE 21, 4 – 7 septembrie 2019, Constanța-Mamaia, Romania

15. Daniel Dinculescu, Valentina Ciocan, Cristiana Luminița Gîjiu, Separations techniques for azeotropic mixtures, RICCCE 23, 4 – 7 septembrie 2024, Constanța-Mamaia, Romania
16. Cristiana Luminița Gîjiu, Cătălina Elena Udrea, Daniel Dinculescu, Sorin Bîldea, Ethanol/water mixtures – separation options, RICCCE 23, 4 – 7 septembrie 2024, Constanța-Mamaia, Romania

E. Brevete obținute în întreaga activitate –