

Nume Prenume: Popa (Asofiei) Ioana

Gradul didactic: Șef lucrări

Instituția unde este titular: Universitatea Națională de Știință și Tehnologie Politehnica București

Facultatea: Inginerie Chimică și Biotehnologii

Departamentul: Bioresurse și Știința Polimerilor

L I S T A

lucrărilor științifice în domeniul disciplinelor din postul didactic

A. Teza de doctorat

1. **I. Asofiei** "Tehnici neconvenționale pentru separarea compușilor valoroși din plante". Universitatea Politehnica din București, Școala Doctorală a Facultății de Chimie Aplicată și Știința Materialelor. București, 2017 (coordonator științific - prof. dr. ing. Ioan Călinescu).

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

1.

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

1. A.I. Gavrila, E.J. Damian, A. Rosca, I. Calinescu, C. Hodosan, **I. Popa**, 2025, Optimization of Microwave-Assisted Extraction of Polyphenols from *Crataegus monogyna* L., Antioxidants, 14, Article No. 357, WOS:001454218200001.

2. I. Quaratesi, I. Calinescu, V. Lavric, V. Ferrara, E. Badea, P. Chipurici, E.-G. Dumbravă, R.-R. Constantinescu, N. D. Ignat, **I. Popa**, 2024, Loop-Ultrasound-Assisted Extraction: An Efficient Approach for the Recovery of Bioactive Compounds from Oak Bark, Agronomy, 14, Article No. 1452, WOS:001278167300001.

3. A.-M. Draghici-Popa, D.-I. Buliga, **I. Popa**, S. T. Tomas, R. Stan, A. C. Boscornea, 2024, Cosmetic Products with Potential Photoprotective Effects Based on Natural Compounds Extracted from Waste of the Winemaking Industry, Molecules, 29, Article No. 2775, WOS: 001255844200001.

4. V. Staicu, I. Calinescu, M. Vinatoru, D. Ghimpeteanu, **I. Popa**, T. J. Mason, 2024, The Efficient Extraction of β -Carotene from Sea Buckthorn Berries Using a Novel Solvent, Fatty Acid Ethyl Esters, and a Combination of Ultrasound and Microwave, Agronomy, 14(3), Article No. 416, WOS:001191928900001.

5. A. I. Gavrila, C. M. Zalaru, R. Tatia, A.-M. Seciu-Grama, C. L. Negrea, I. Calinescu, P. Chipurici, A. Trifan, **I. Popa**, 2023, Green Extraction Techniques of Phytochemicals from *Hedera helix* L. and In Vitro Characterization of the Extracts, Plants-Basel, 12, 22, Article No. 3908, WOS:001114597100001.

6. A. I. Gavrila, C. G. Chisega-Negrila, L. Maholea, M. L. Gavrila, O. C. Parvulescu, **I. Popa**, 2023, Enhancing the Extraction Process Efficiency of Thyme Essential Oil by Combined Ultrasound and Microwave Techniques, Agronomy, 13, Article No. 2331, WOS:001093126200001.

7. D.-I. Buliga, **I. Popa**, A. Diacon, C.A. Boscornea, 2022, Optimization of Ultrasound-Assisted Extraction of Chlorophyll Using Design of Experiments and Stability Improvement via Encapsulation, UPB Scientific Bulletin, Series B, 84(4), 59-72, WOS:000897670000005.

8. A.I. Gavrilă, R. Tatia, A.-M. Seciu-Grama, I. Tarcomnicu, C. Negrea, I. Calinescu, C. Zalaru, L. Moldovan, A.D. Raiciu, **I. Popa**, 2022, Ultrasound Assisted Extraction of Saponins from *Hedera helix* L. and an In Vitro Biocompatibility Evaluation of the Extracts, *Pharmaceuticals*, 15, Article No. 1197, WOS:000873732500001.
9. D.-I. Buliga, A. Diacon, I. Calinescu, **I. Popa**, E. Rusen, A. Ghebaur, O. Tutunaru, C. A. Boscornea, 2022, Enhancing the light fastness of natural dyes by encapsulation in silica matrix, *Journal of Photochemistry and Photobiology A: Chemistry*, 432, Article No. 114085, WOS:000826687700003
10. V. Staicu, C. Luntraru, I. Calinescu, C. G. Chisea-Negrila, M. Vinatoru, M. Neagu, A. I. Gavrilă, **I. Popa**, 2021, Ultrasonic or Microwave Cascade Treatment of Medicinal Plant Waste, *Sustainability*, 13(22), Article No. 12849, ISSN: 20711050, WOS:000806947700001.
11. **I. Asofiei**, I. Călinescu, V. Staicu, D.-I. Buliga, A. I. Gavrilă, 2021, A Strategy for Enhancing the Extraction Yield of Polyphenols from Sea Buckthorn Leaves, *UPB Scientific Bulletin, Series B*, 83(2), 37-44, WOS:000661663200004.
12. **I. Asofiei**, C. A. Boscornea, D. I. Buliga, A. Diacon, T. S. Tomas, V. C. Pop, 2020, Mixture design experiments applied for the formulation of a textile ink with reproduction of the NATO IRR green color used in military camouflage, *Textile Research Journal*, Article No. 0040517520938152, 1-12, WOS:000546738300001.
13. **I. Asofiei**, I. Călinescu, A. Trifan, A. I. Gavrilă, 2019, A Semi-Continuous Process For Polyphenols Extraction From Sea Buckthorn Leaves, *Scientific Reports*, 9:12044, 1-7. ISSN: 2045-2322, WOS:000481590200085.
14. **I. Asofiei**, I. Călinescu, A. I. Gavrilă, D. Ighigeanu, D. Martin, 2018, Microwave Pretreatment of Vegetable Materials to Increase the Extraction Yield of Natural Products, *Revista de Chimie*, 69 (8), 1976-1979, WOS:000444602300011.
15. **I. Asofiei**, I. Călinescu, P. Chipurici, A. I. Gavrilă, 2018, Enzymatic Pretreatment of Vegetable Materials to Increase the Extraction Yield of Bioactive Compounds, *Revista de Chimie*, 69 (11), 4171-4174, WOS:000451931500067.
16. I. Călinescu, V. Lavric, **I. Asofiei**, A. I. Gavrilă, A. Trifan, D. Ighigeanu, D. Martin, C. Matei, 2017, Microwave Assisted Extraction of Polyphenols using a coaxial antenna and a cooling system, *Chemical Engineering & Processing: Process Intensification*, 122, 373-379, WOS:000418211800036.
17. A. I. Gavrilă, **I. Asofiei**, A. Trifan, P. Chipurici, E. Rusen, 2017, Microwave assisted synthesis of 5-hydroxymethylfurfural using mild reaction conditions, *Revista de Chimie*, 68 (3), 435-438, WOS:000400731900003.
18. A. I. Gavrilă, **I. Asofiei**, P. Chipurici, 2017, Factorial Design for Optimization of Microwave Assisted Synthesis of 5-Hydroxymethylfurfural, *Revista de Chimie*, 68 (4), 639-641, WOS:000400732400002.
19. I. Călinescu, **I. Asofiei**, A. I. Gavrilă, A. Trifan, D. Ighigeanu, D. Martin, C. Matei, M. Buleandă, 2017, Integrating microwave assisted extraction of essential oils and polyphenols from rosemary and thyme leaves, *Chemical Engineering Communications*, 204 (8), 965-973, WOS:000409168800016.
20. **I. Asofiei**, I. Călinescu, A. I. Gavrilă, D. Ighigeanu, D. Martin, C. Matei, 2017, Microwave hydrodiffusion and gravity, a green method for the essential oil extraction from ginger – energy considerations, *UPB Scientific Bulletin, Series B*, 79(4), 81-92, WOS:000424134600009.
21. **I. Asofiei**, I. Călinescu, A. Trifan, I. G. David, A. I. Gavrilă, 2016, Microwave Assisted Batch Extraction of Polyphenols from Sea Buckthorn Leaves, *Chemical Engineering Communications*, 203 (12), 1547-1553, WOS:000387245100003.

D. Lucrări publicate în ultimii 10 anii în reviste și volume de conferințe cu referenți

(neindexate)

- Reviste

1. D.-I. Buliga, A. Diacon, **I. Asofiei**, C. Boscornea, Stabilization of Photosensitive Curcumin by Microencapsulation, Proceedings, 57(1), 96. ISSN 2504-3900.

- Selecție cu maximum 20 lucrări în volume de conferințe

1. GPMB 2024, Roma, Italia, 16–18 septembrie 2024. **I. Popa**, A.-M. Drăghici-Popa, A. I. Gavrilă, C. A. Boscornea. Combined microwave and ultrasound technique as an efficient extraction method of bioactive compounds from flaxseed.

2. GPMB 2024, Roma, Italia, 16–18 septembrie 2024. A. I. Gavrilă, **I. Popa**, E. Feizulla, A. Trifan, Microwave assisted extraction of phytochemicals from *Melissa Officinalis* L with neuroprotective effect.

3. RICCCE 2024, Constanța - Mamaia, Romania, 4–7 septembrie 2024. A.-M. Drăghici-Popa, A. I. Gavrilă, C. A. Boscornea, **I. Popa**, Bioactive Compounds Extraction Using Sequential Green Technology: Ultrasound and Microwave

4. RICCCE 2024, Constanța - Mamaia, Romania, 4–7 septembrie 2024. **I. Popa**, A.-M. Drăghici-Popa, A. I. Gavrilă, D.-I. Buliga, C. A. Boscornea, A Promising Solvent, Fatty Acid Ethyl Esters, for Ultrasound-Assisted Extraction of Liposoluble Bioactive Compounds.

5. RICCCE 2024, Constanța - Mamaia, Romania, 4–7 septembrie 2024. D.-I. Buliga, **I. Popa**, A. Diacon, C. A. Boscornea. Optimization of a green method for extracting bioactive compounds from plant materials and techniques for stabilization improvement.

6. PRIOCHEM XIX 2023, Bucharest, Romania - A.M. Draghici-Popa, D.-I. Buliga, **I. Popa**, S. Tomas, C.A. Boscornea, Photoprotective Cosmetic Products with polyphenolic extract from grape marc

7. PRIOCHEM XVIII 2022, Bucharest, Romania - D.-I. Buliga, **I. Popa**, C.A. Boscornea, A.M. Draghici-Popa, Recovery of Natural Pigments with Potential Applications in Cosmetics and Food through Conventional and unconventional Methods.

8. RICCCE 2022, Sinaia, Romania - A.I. Gavrilă, **I. Popa**, C.M. Zalaru, I. Calinescu, C. Negrea, Comparison of Different Techniques for the Extraction of Bioactive Compounds with Immunostimulatory Activity from Ivy Leaves.

9. RICCCE 2022, Sinaia, Romania - A.-M. Drăghici-Popa, R. Stan, S.T. Tomas, **I. Popa**, Investigation of the antioxidant properties of some fruit extracts from the native spontaneous flora.

10. CHEMISTRY 2021, Rome, Italy - D.-I. Buliga, A. C. Boscornea, A. Diacon, **I. Popa**, Optimization of ultrasound extraction of chlorophylls from spinach by-products using response surface methodology and stabilization of the extracted pigments by encapsulation.

11. ULTRASONICS 2021, Caparica, Portugal - A. I. Gavrilă, I. Calinescu, **I. Popa**, C. M. Zalaru, Ultrasonic pretreatment of vegetal material to increase the extraction yield of bioactive compounds.

12. OPROTEH 2021, Bacau, Romania - C. L. Negrea, **I. Popa**, I. Calinescu, L. Maholea, A. I. Gavrilă, Ultrasound-assisted extraction of bioactive compounds from ivy leaves.

13. NeXT-Chem 2021, Bucharest, Romania - D.-I. Buliga, A. C. Boscornea, **I. Popa**, A.-M. Draghici-Popa, I. Calinescu, Phycocyanin – A Possible Solution for Natural Blue Pigments.

14. PRIOCHEM 2021, Bucharest, Romania - D.-I. Buliga, A. Diacon, **I. Asofiei**, A. C. Boscornea, Stabilisation of Photosensitive Curcumin by Microencapsulation.

15. ChemCYS 2020, Blankenberge, Belgia - **I. Asofiei**, I. Calinescu, Ultrasound assisted extraction of polyphenols from sea buckthorn leaves.

16. RICCCE 2019, Mamaia, România - **I. Asofiei**, C. A. Boscornea, D. I. Buliga, S. T. Tomas, C. Pop, Self-cleaning waterborne paints based on TiO₂ sensitized with mixed chromophore dyes.

17. RICCCE 2017, Poiana Braşov, România - **I. Asofiei**, I. Călinescu, A.I. Gavrilă, D. Ighigeanu, D. Martin, Microwave pretreatment of plant materials to improve the maceration process.

18. IUPAC 2016, Venetia, Italia - I. Călinescu, V.Lavric, **I. Asofiei**, A.I. Gavrilă, D. Ighigeanu, D. Martin, C. Matei, Microwave Assisted Extraction Using an Open-end Coaxial Antenna and a Cooling System.

19. IUPAC 2016, Venetia, Italia - D. Ighigeanu, I. Călinescu, **I. Asofiei**, A.I. Gavrilă, D. Martin, C. Matei, Extraction of Essential Oil from Ginger Using Microwave Hydro-diffusion and Gravity Method – Energy Considerations.

20. AMPERE 2015, Cracovia, Polonia - I. Călinescu, A. M. Popescu, **I. Asofiei**, A. Gavrilă, A. Trifan, D. Ighigeanu, D. Martin, C. Matei, Microwave Assisted Extraction of Polyphenols Using an Open-end Coaxial Applicator and a Cooling System.

E. Brevete obținute în întreaga activitate

1. I. Calinescu, I. A. Gavrilă, **I. Asofiei**, D. P. Ighigeanu, D. Martin, 2019, Process for microwave pretreatment of plant materials in order to increase the extraction efficiency of polyphenols. Patent Number(s): RO133142-B1.

2. A.I. Gavrilă, **I. Popa**, I. Calinescu, C.M. Zalaru, R. Tatia, L. Moldovan, Procedeu de intensificare prin metode neconvenționale a extracției principiilor active din Hedera helix L., înregistrat OSIM cu nr. A/00661, 2022.

3. I. Calinescu, M. Vinatoru, **I. Popa**, A. Diacon, Produs Natural Complex Destinat Prevenirii Bolilor Oculare și Cardiovasculare și Procedeu de Obținere a Acestuia, înregistrat OSIM cu nr. RO138297/30.07.2024.

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Semnătura: