

## INFORMAȚII PERSONALE



### **Irina Roșca**

📍 Aleea Mihail Sadoveanu, Iași, România

☎️ +40740693597

✉️ [rosca.irina@icmpp.ro](mailto:rosca.irina@icmpp.ro)

Sexul: F | Data nașterii: 03/03/1981 | Naționalitatea: Română

## EXPERIENȚA PROFESIONALĂ

01.04.2020 - Prezent

### Cercetător Științific

Institutul de Chimie Macromoleculară „Petru Poni” din Iași  
Aleea Grigore Ghica Voda, nr. 41 A, 700487, Iași, România, <http://www.icmpp.ro/>  
Activități: evaluarea activității antimicrobiene

Tipul sau sectorul de activitate: Cercetare științifică

01.08.2012 – 31.03.2020

### Asistent de cercetare

Institutul de Chimie Macromoleculară „Petru Poni” din Iași  
Aleea Grigore Ghica Voda, nr. 41 A, 700487, Iași, România, <http://www.icmpp.ro/>  
Activități: evaluarea activității antimicrobiene

Tipul sau sectorul de activitate: Cercetare științifică

25.04.2012 – 30.07.2012

### Lector asociat

Universitatea “Apollonia”, Facultatea de Medicină Dentară, Iași, România  
Activități: didactică, disciplina: Microbiologie, Parazitologie, Virusologie

Tipul sau sectorul de activitate: Activitate didactică

01.01.2003-31.10.2010

### Asistent de cercetare

Universitatea “Alexandru Ioan Cuza”, Facultatea de Biologie, Iași, România  
Activități: studiul micro și macroorganismelor din ecosistemele marine și lacustre

Tipul sau sectorul de activitate: Cercetare științifică

## EDUCAȚIE ȘI FORMARE

---

23.10.2015-30.10.2015

### Program de perfecționare: **MANAGER DE PROIECT**

Proiect PECAFROM – Promovarea egalității de șanse în cariera universitară și academică pentru femeile din România - POSDRU/144/6.3/S/127928, Universitatea Apollonia, Iași

17.11.2014-19.04.2015

### Program de perfecționare: **OPERATOR INTRODUCERE, VALIDARE ȘI PRELUCRARE DATE**

Proiect PECAFROM – Promovarea egalității de șanse în cariera universitară și academică pentru femeile din România POSDRU/144/6.3/S/127928 - Universitatea Apollonia, Iași

01.10.2007 – 31.12.2010

### **DOCTORAT ÎN BIOLOGIE**

Universitatea „Al. I. Cuza”, Facultatea de Biologie, Iași, România

Titlul tezei: „Feeding ecology of some benthic fish species from the Romanian Black Sea Coast (Agigea-Eforie Nord)”

01.10.2004 – 31.07.2006

### **Masterat în BIODIVERSITATEA ȘI PRODUCTIVITATEA ECOSISTEMELOR**

Universitatea „Al. I. Cuza”, Facultatea de Biologie, Iași, România

01.10.2000 – 31.07.2004

### **Licența în ECOLOGIE ȘI PROTECȚIA MEDIULUI**

Universitatea „Al. I. Cuza”, Facultatea de Biologie, Iași, România

### **Bacalaureat, profilul: Chimie Biologie**

15.09.1996 – 15.06.2000

Liceul Teoretic „Grigore C. Moisil”, Onești, jud. Bacău, România

## COMPETENȚE

## PERSONALE

Limba maternă

Română

Alte limbi străine cunoscute

	INȚELEGERE		VORBIRE		SCRIERE
	Ascultare	Citire	Participarea conversație	Discurs oral	
Engleză	C2	C2	C2	C2	C2
Franceză	C2	C2	B1	B1	B1
Spaniolă	C2	C2	C2	C2	C2

Niveluri: A1/2: Utilizator elementar - B1/2: Utilizator independent - C1/2: Utilizator experimentat

Cadrul european comun de referință pentru limbi străine

Competențe de comunicare

Capacitate buna de colaborare în echipă, în țară și în străinătate. Spirit de echipă, flexibilitate și seriozitate.

 Competențe  
organizaționale/manAGERIALE

Experiența în gestiunea activităților de cercetare și financiare din cadrul proiectelor de cercetare științifică .

 Competențe dobândite la  
locul de muncă

Testare antimicrobiană (antifungică și antibacteriană) a diferite clase de biomateriale. Identificare, clasificare și modelare de diferite clase de microorganisme și a compușilor lor de metabolism. Utilizare aparatură dedicată biologiei: microscopie optică și de fluorescență, cititoare de plăci, densitometru, electroforeze clasice și automate, PCR, echipamente de sterilizare, numărătoare colonii etc.

Competențe informatice

O bună cunoaștere a conceptelor de bază privind utilizarea următoarelor instrumente software: Sistem de operare Windows, Microsoft Office: Word, Excel, Powerpoint; Programe de statistică: XcelStat, TrophLab etc.



**ANEXA: Activitate științifică:****1. Teză de doctorat :**

« Feeding ecology of some benthic fish species from the Romanian Black Sea Coast (Agigea-Eforie Nord Area) », conducător de doctorat : Prof. Dr. Iordache Ion, Facultatea de Biologie, Universitatea « Alexandru Ioan Cuza » din Iasi.

**2. Capitole în cărți :**

1. **Rosca I.**, Ursu E.L., Fifere A. A Microbiological Epilogue—Nosocomial Infections. In: J.M. Abadie M., Pinteala M., Rotaru A. (eds) *New Trends in Macromolecular and Supramolecular Chemistry for Biological Applications*. Springer, Cham. [https://doi.org/10.1007/978-3-030-57456-7\\_9](https://doi.org/10.1007/978-3-030-57456-7_9), pp 179-189, ISBN 978-3-030-57456-7, (2021)
2. Fifere A., Lungoci L.A., Minea B., **Rosca I.**, Duca Gh., Boldescu V., Marangoci N., Simionescu B.C., Pinteala M., Macaev F., Cap.11 Cyclodextrins as molecular delivery systems for drugs with antifungal activity : from design to application, in : Duca Ghe si Macaev F, *Compounds and Materials for Drug Development and Biomedical Applications*, Editura Academiei Romane, Muzeul Brailei « Carol I » Editura Istros, Bucuresti-Braila, pp. 291-307, (2018).

**3. Articole publicate în reviste de specialitate de circulație internațională recunoscute (reviste cotate ISI)**

1. Lupu A., **Rosca I.**, Gradinaru V. R., Bercea M. Temperature Induced Gelation and Antimicrobial Properties of Pluronic F127 Based Systems. *Polymers*, 15, 355, (2023). **(IF: 4,967)**
2. Andreica B.-I., Anisie A., **Rosca I.**, Sandu A.-I., Pasca A. S., Mititelu Tartau L., Marin L. Quaternized chitosan/chitosan nanofibrous mats: An approach toward bioactive materials for tissue engineering and regenerative medicine. *Carbohydrate Polymers*, 302, 120431, (2023) **(IF: 11,072)**
3. Nita L. E., Crețu B.-E.-B., Șerban A.-M., Rusu A. G., **Rosca I.**, Pamfil D., Chiriac A. P. New cryogels based on poly (vinyl alcohol) and a copolymacrolactone system. II. Antibacterial properties of the network embedded with thymol bioactive agent. *Reactive and Functional Polymers*, 105461, (2023) **(IF: 3,975)**
4. Ghilan A., Nita L. E., Pamfil D., Simionescu N., Tudorachi N., Rusu D., Rusu A. G., Bercea M., **Rosca I.**, Ciolacu D. E., Chiriac A. P. One-step preparation of carboxymethyl cellulose-phytic

- acid hydrogels with potential for biomedical applications. *Gels*, 8, Article 647/1-15, (2022) (IF: 4,432)
5. Varganici C. D., Rosu L., Rosu D., Hamciuc C., **Rosca I.**, Vasiliu A. L. Effect of hardener type on the photochemical and antifungal performance of epoxy and oligophosphonate S- IPNs. *Polymers*, 14, Article 3784/1- 21, (2022) (IF: 4,967)
  6. Ailincăi D., **Rosca I.**, Ursu L., Dascalu A. Chitosan-oligomers - synthesis, characterization and properties. *Cellulose Chemistry and Technology*, 56, 767-776, (2022) (IF: 1,387)
  7. Fifere A., Turin-Moleavin I.-A., **Rosca I.\***. Does Protocatechuic Acid Affect the Activity of Commonly Used Antibiotics and Antifungals? *Life*, 12, 1010, (2022) (IF: 3,251)
  8. Chiriac A. P., Stoleru E., **Rosca I.**, Serban A., Nita L. E., Rusu A. G., Ghilan A., Macsim A.-M., Mititelu-Tartau L. Development of a new polymer network system carrier of essential oils. *Biomedicine & Pharmacotherapy*, 149, 112919, (2022). (IF: 7,419)
  9. Iftime M.-M., **Rosca I.**, Sandu A.-I., Marin L. Chitosan crosslinking with a vanillin isomer towards self-healing hydrogels with antifungal activity. *International Journal of Biological Macromolecules*, 205, 574-586, (2022). (IF: 6,953)
  10. Vasiliu A.-L., Zaharia M.-M., Bazarghideanu M.-M., **Rosca I.**, Peptanariu D., Mihai M. Hydrophobic composites designed by a nonwoven cellulose-based material and polymer/CaCO<sub>3</sub> patterns with biomedical application. *Biomacromolecules*, 23, 1, 89–99, (2022). (IF: 6,978)
  11. Anisiei A., **Rosca I.**, Sandu A. I., Bele A., Cheng X., Marin L. Imination of microporous chitosan fibers – a route to biomaterials with “on demand” biodegradation and antimicrobial properties for wound dressings. *Pharmaceutics*, 14, 117, (2022). (IF: 6,525)
  12. Gaina V., Ursache O., Gaina C., **Rosca I.**, Vasiliu A.-L. Synthesis and characterization of furfural-functionalized poly(vinyl alcohol) cross-linked with maleimide bearing tributyltin groups. *Express Polymer Letters*, 16(2), 184-196, (2022). (IF: 3,952)
  13. Ailincăi D., **Rosca I.**, Morariu S., Mititelu-Tartau L., Marin L. Iminoboronate – Chitooligosaccharides Hydrogels with strong antimicrobial activity for biomedical applications. *Carbohydrate Polymers*, 276, 118727 (2022). (IF: 11,072)
  14. Mustata F., Rosu D., Varganici C.–D., Rosu L., **Rosca I.**, Tudorachi N. Assessing the thermal and fungal behavior of eco-friendly epoxy thermosets derived from vegetable oils for wood protective coatings. *Progress in Organic Coatings*, 106612, (2022). (IF: 6,206)
  15. Zaharia M.-M., Ghiorghita C.-A., Trofin M.-A., Doroftei F., **Rosca I.**, Mihai M. Multifunctional composites of zwitterionic resins and silver nanoparticles for point-of-demand antimicrobial applications. *Materials Chemistry and Physics*, 275, 125225, (2022). (IF: 4,778)

16. Râpă M., Gaidau C., Mititelu-Tartau L., Berechet M.-D., Berbecaru A. C., **Rosca I.**, Chiriac A. P., Matei E., Predescu A.-M., Predescu C. Bioactive Collagen Hydrolysate - Chitosan/Essential Oils Electrospun Nanofibers Designed for Medical Wound Dressings. *Pharmaceutics*, 13, 1939, (2021). (IF: 6,525)
17. Pascariu P., Cojocaru C., Airinei A., Olaru N., **Rosca I.**, Koudoumas E., Suchea M. P. Innovative Ag–TiO<sub>2</sub> Nanofibers Offering Excellent Photocatalytic and Antibacterial Action. *Catalysts*, 11, 1234, (2021). (IF: 4,501)
18. Lungu R., Anisiei A., **Rosca I.**, Sandu A.-I., Ailincăi D., Marin L. Double functionalization of chitosan based nanofibers towards biomaterials for wound healing. *Reactive and Functional Polymers*, 167, 105028, (2021). (IF: 4,966)
19. Sardaru M.-C., **Rosca I.**, Morariu S., Ursu E.-L., Ghiarasim R., Rotaru A. Injectable Thixotropic  $\beta$ -Cyclodextrin-Functionalized Hydrogels Based on Guanosine Quartet Assembly. *International Journal of Molecular Sciences*, 22, 9179, (2021). (IF: 6,208)
20. Nita L.E., Chiriac A.P., Ghilan A., Rusu A.G., Pamfil D., **Rosca I.**, Mititelu-Tartau L. Alginate enriched with phytic acid for hydrogels preparation. Therapeutic applications. *International Journal of Biological Macromolecules*, 189, 335-345 (2021). (IF: 8,028)
21. Cozma V., **Rosca I.\***, Radulescu L., Martu C., Nastasa V., Varganici C.-D., Ursu E.-L., Doroftei F., Pinteala M., Racles C. Antibacterial polysiloxane polymers and coatings for cochlear implants. *Molecules*, 26(16), 4892, (2021). (IF: 4,927)
22. Al-Matarneh M. C., **Rosca I.**, Shova S., Danac R. Synthesis and properties of new fused 1,10-phenanthroline derivatives. *Journal of the Serbian Chemical Society*, 86 (0) 1–15 (2021). (IF: 1,100)
23. David G., Bargan A. I., Droboța M., Bele A., **Rosca I.** Comparative Investigation of Collagen-Based Hybrid 3D Structures for Potential Biomedical Applications. *Materials*, 14, 3313 (2021). (IF: 3,784)
24. Chiriac A. P., Rusu A.G., Nita L. E., Măcsim A.-M., Tudorachi N., **Rosca I.**, Stoica I., Tampu D., Aflori M., Doroftei F. Synthesis of poly(ethylene brassylate-co-squaric acid) as potential essential oil carrier. *Pharmaceutics*, 13(4): 477 (2021). (IF: 6,525)
25. Rusu A. G., Chiriac A. P., Nita L. E., **Rosca I.**, Rusu D., Neamtu I. Self-Assembled Nanocarriers Based on Modified Chitosan for Biomedical Applications: Preparation and Characterization. *Polymers*, 12(11), 2593 (2020). (IF: 4,967)

26. Rosu, C. D. Varganici, F. Mustata, D. Rosu, **Rosca I.**, Rusu T. Bio-based coatings from epoxy resins crosslinked with a rosin acid derivative for wood thermal and anti-fungal protection. *Progress in Organic Coatings*, 151, 106008 (2021) (**IF: 6,206**)
27. Rusu A. G., Chiriac A., Nita L. E., **Rosca I.**, Pinteala M., Mititelu-Tartau L. Chitosan derivatives in macromolecular co-assembly nanogels with potential for biomedical applications. *Biomacromolecules*, 21(10), 4231–4243 (2020). (**IF: 6,978**)
28. Pascariu, C. Cojocaru, P. Samoila, A. Airinei, N. Olaru, D. Rusu, **I. Rosca**, M. Sucheai; Photocatalytic and antimicrobial activity of electrospun ZnO:Ag nanostructures. *Journal of Alloys and Compounds*, 834, 155144 (2020). (**IF: 6,371**)
29. Rosu L., Varganici C.-D., Mustata F., Rosu D., **Rosca I.**, Rusu T., Epoxy Coatings Based on Modified Vegetable Oils for Wood Surface Protection against Fungal Degradation; *ACS Appl. Mater. Interfaces*, 12, 14443–14458, (2020). (**IF: 10,383**).
30. Morariu S., Bercea M., Gradinaru L.M., **Rosca I.**, Avadanei M. Versatile poly(vinyl alcohol)/clay physical hydrogels with tailorable structure as potential candidates for wound healing applications. *Materials Science and Engineering: C Materials for Biological Applications*, 109, 110395, (2020). (**IF: 8,457**)
31. Turin-Moleavin I.-A., Fifere A., Lungoci A.-L., **Rosca I.**, Coroaba A., Peptanariu D., Nastasa V., Pasca S.-A., Bostanaru A.-C., Mares M., Pinteala M. *In vitro* and *in vivo* antioxidant activity of the new magnetic-cerium oxide nanoconjugates. *Nanomaterials*, 9, 1565, (2019). (**IF: 5,719**)
32. Moraru A.C., **Rosca I.\***, Craciun B., Nicolescu A., Chiriac A.E., Voicu V. Insights of the antimicrobial activity of piperine extracted from *Piper nigrum* L. *Farmacia*, 67(6), 1099-1105, (2019). (**IF: 1,550**)
33. Teacă C.-A., Roșu D., Mustață F., Rusu T., Roșu L., **Rosca I.**, Varganici C.-D. Natural Bio-Based Products for Wood Coating and Protection against Degradation: A Review. *BioResources*, 14(2), 4873-4901, (2019). (**IF: 1,747**)
34. Roșu L., Mustață F., Varganici C.-D., Roșu D., Rusu T., **Rosca I.** Thermal behaviour and fungi resistance of composites based on wood and natural and synthetic epoxy resins cured with maleopimaric acid. *Polymer Degradation and Stability*, 160, 148-161, (2019). (**IF: 5,204**)
35. Al Matarneh C.M., Sardaru M.C., Apostu M.O., **Rosca I.**, Ciobanu C.I., Mangalagiu I., Danac D. Synthesis and antibacterial evaluation of new pyrrolo[3',4':3,4]pyrrolo[1,2-a]quinoline and pyrrolo[3',4':3,4]pyrrolo[2,1-a]isoquinoline derivatives. *Studia UBB Chemia*, 64(3), 67-80 (2019). (**IF: 0,558**)



36. Roman G., **Rosca I.** Brief examination of the antimicrobial activity of phenolic mannich bases derived from butylated hydroxyanisole. *Farmacia*, 67(6), 967-972 (2019). (IF: 1,550)
37. Balan G., **Rosca I.\***, Ursu E.-L., Fifere A., Varganici C.-D., Doroftei F., Turin-Moleavin I.-A., Sandru V., Constantinescu G., Timofte D., Stefanescu G., Trifan A., Sfarti C.V. Duodenoscope-Associated Infections beyond the Elevator Channel: Alternative Causes for Difficult Reprocessing. *Molecules*, 24, 2343, (2019). (IF: 4,927)
38. Melinte V., Buruiana T., **Rosca I.**, Chibac A. TiO<sub>2</sub>-based photopolymerized hybrid catalysts with visible light catalytic activity induced by *in situ* generated Ag/Au NPs. *ChemistrySelect*, 4, 5138–5149, (2019). (IF: 2,307)
39. Bostanaru A.-C., **Rosca I.**, Minea B., Năstasă V., Foia L., Marincu I., Mares M., Mederle O.-A. Genotype comparison of *Candida albicans* isolates from different clinical samples. *Revista Română de Medicină de Laborator*, 27(3), 327-332, (2019). (IF: 1,027)
40. Ursu E.L., **Rosca I.**, Bahrin L.G., Clima L., Bejan D., Sardaru M.C., Marangoci N., Lozan V., Rotaru A. Aqueous Dispersion of Single-Walled Carbon Nanotubes Using Tetra-Phenyl Bimesitylene Derivative via Noncovalent Modification and Improved Antimicrobial Activity. *J Nanosci Nanotechnol*, 19(12), 7960-7966, (2019). (IF: 1,354)
41. Bahrin L., Clima L., Shova S., **Rosca I.**, Cojocaru C., Bejan D., Sardaru M., Marangoci N., Lozan V., Rotaru A. Synthesis, structure, computational modeling, and biological activity of two novel bimesitylene derivatives. *Research on Chemical Intermediates*, 45(2), 453–469, (2019). (IF: 3,134)
42. Petrovici A.R., Nicolescu A., Silion M., **Rosca I.**, Ciolacu D. Biopolymer biosynthesis by lactic acid bacteria strain in four different culture media. *Revue Romaine de Chimie*, 63(7-8), 637-642, (2018). (IF: 0,410)
43. Lungoci L., Pinteala M., Petrovici A.R., **Rosca I.**, Turin-Moleavin I.A., Fifere A. Biosynthesized dextran coated magnetic particles with antifungal activity. *Revue Romaine de Chimie*, 63(5-6), 495-501, (2018). (IF: 0,410)
44. **Rosca I.**, Bostanaru A.-C., Minea B., Năstasă V., Gherghel I., Mareș M., Moroti-Constantinescu V.R. Phenotypic and genotypic profiles of *Candida albicans* isolates from Romanian patients. *Romanian Journal of Laboratory Medicine*, 26(4), 405-413, (2018). (IF: 1,027)
45. Ardeleanu R., Dascălu A., Shova S., Nicolescu A., **Rosca I.**, Bratanovici B.-I., Lozan V., Roman G. 4'-(2H-Tetrazol-5-yl)-[1,1'-biphenyl]-4-carboxylic acid: Synthetic approaches, single crystal X-ray structures and antimicrobial activity of intermediates. *Journal of Molecular Structure*, 1173, 63-71, (2018). (IF: 3,841)

46. Bahrin L.G., **Rosca I.**, Clima L., Shova S., Bejan D., Nicolescu A., Marangoci N.-L., Sardaru M.C., Lozan V., Rotaru A. Zinc(II) coordination polymer on the base of 3'-(1H-tetrazol-5-yl)-[1,1'-biphenyl]-4-carboxylic acid: Synthesis, crystal structure and antimicrobial properties. *Inorganic Chemistry Communications*, 92, 60–63, (2018). (IF: 3,428)
47. Balan G., **Rosca I.\***, Ursu E.-L., Doroftei F., Bostanaru A.C., Hnatiuc E., Nastasa V., Sandru V., Stefanescu G., Trifan A., Mares M. Plasma activated water - a new and effective alternative for duodenoscope reprocessing. *Infection and Drug Resistance*, 11, 727-733, (2018). (IF: 4,177)
48. Rosu L., Varganici C.-D., Mustata F., Rusu T., Rosu D., **Rosca I.**, Tudorachi N., Teaca C.-A. Enhancing the thermal and fungal resistance of wood treated with natural and synthetic derived epoxy resins. *ACS Sustainable Chemistry and Engineering*, 6(4), 5470-5478, (2018). (IF: 9,244)
49. **Rosca I.**, Petrovici A.R., Peptanariu D., Nicolescu A., Dodi G., Avadanei M., Ivanov I.-C., Bostanaru A.-C., Mares M., Ciolacu D. Biosynthesis of dextran by *weissella confusa* and their *in vitro* functional characteristics. *International Journal of Biological Macromolecules*, 107, 1765–1772, (2018). (IF: 8,028)
50. Mares M., Minea B., Nastasă V., **Rosca I.**, Bostanaru A.-C., Marincu I., Toma V., Cristea V.C., Murariu C., Pinteala M. *In vitro* activity of echinocandins against 562 clinical yeast isolates from a Romanian multi-centre study. *Medical Mycology*, 56(4), 442-451, (2018). (IF: 3,747)
51. Petrovici A.R., **Rosca I.\***, Stoica I., Silion M., Nicolescu A., Dodi G., Simionescu N., Varganici C.-D., Ivanov, I.-C., Pinteala M. Biosynthesis of exopolysaccharides by *Weissella confusa* in a new culture medium. *Romanian Biotechnological Letters*, 23, 13637-13646, (2018). (IF: 0,404)
52. Petrovici A.R., **Rosca I.\***, Dodi G., Nicolescu A., Avădanei M., Varganici C.-D., Ciolacu A. Effects of culture medium composition on biosynthesis of exopolysaccharides. *Cellulose Chemistry and Technology*, 51(9-10), 821-830, (2017). (IF: 1,387)
53. **Rosca I.**, Petrovici A.R., Brebu M., Stoica I., Minea B., Marangoci N. A new and original method to produce acetaldehyde and diacetyl from yeast fermentations. *Brazilian Journal of Microbiol.*, 47, 949-954, (2016). (IF: 2,214)
54. Pinteală T., Chiriac A.E., **Rosca I.**, Larese Filon F., Pinteală M., Chiriac A., Podoleanu C., Stolnicu S., Coros M.F., Coroaba A. Nail damage (severe onychodystrophy) induced by acrylate glue: scanning electron microscopy and energy dispersive X-ray investigations. *Skin Appendage Disorders*, 2, 137-142, (2016). (IF: 0,000)
55. Minea B., Marangoci N., Peptanariu D., **Rosca I.**, Năstasă V., Corciova A., Varganici C.-D., Nicolescu A., Fifere A., Neamțu A., Mareș M., Bărboiu M., Pinteală M. Inclusion complexes of propiconazole nitrate with substituted  $\beta$ -cyclodextrins. Synthesis, *in silico* and *in vitro*

- assessment of antifungal properties. *New Journal of Chemistry*, 40, 1765-1776, (2016). (IF: **3,925**)
56. Minea B., Năstasă V., Kolecka A., Mareș M., Marangoci N., **Rosca I.**, Pinteală M., Hâncianu M., Mareș M. Etiologic agents and antifungal susceptibility of oral candidosis from Romanian patients with HIV-infection or type 1 *diabetes mellitus*. *Polish Journal of Microbiology*, 65(1), 123-129, (2016). (IF: **2,019**)
57. Ghiorghiasă R., Petrovici A.R., **Rosca I.**, Miron L. Inclusion complex of thiotriazinone with  $\alpha$ -cyclodextrin, Raman spectroscopy, DSC, preliminary antimicrobial and antifungal study. *Digest Journal of Nanomaterials and Biostructures*, 11(1), 235-241, (2016). (IF: **0,899**)
58. **Rosca I.**, Gherghel I., Strugariu A., Zamfirescu S.R. Feeding ecology of two newt species (*Triturus cristatus* and *Lissotriton vulgaris*) during the reproduction season. *Knowledge and Management of Aquatic Ecosystems*, 408, p01- 05, (2013). (IF: **1,928**)
59. Mânzu C., Gherghel I., Zamfirescu S.R., Zamfirescu O., **Rosca I.**, Strugariu A. Current and future potential distribution of glacial relict *Ligularia sibirica* (Asteraceae) in Romania and temporal contribution of Natura 2000 to protect the species in light of global change. *Carpathian Journal of Earth and Environmental Sciences*, 8(2), 77-87, (2013). (IF: **1,316**)

#### 4. Articole publicate în reviste de specialitate din țară recunoscute de către CNCSIS (B+)

1. **Rosca I.**, Mânzu C. Feeding ecology of knout goby (*Mesogobius batrachocephalus* Pallas, 1814) from the Romanian Black Sea (Agigea-Eforie Nord area). *AACL Bioflux*, 4(2), 123-129, (2011).
2. **Rosca I.**, Arteni O.M. Feeding ecology of black scorpionfish (*Scorpaena porcus* Linnaeus, 1758) from the Romanian Black Sea (Agigea-Eforie Nord area). *Animal Biology and Animal Husbandry ABAH Bioflux*, 2(1), 39-46, (2010).
3. **Rosca I.**, Surugiu V. Feeding ecology of some benthic species of fish from the Black Sea coast (Agigea-Eforie Nord area). *Analele Științifice ale Universității „Al. I. Cuza”, Iași, Secțiunea I, Biologie Animală*, LVI, 249-256, (2010).
4. **Rosca I.**, Arteni O.M., Ion I. Recent data on some benthic fish populations from the Black Sea coast (Agigea-Eforie Nord area). *Analele Științifice ale Universității „Al. I. Cuza”, Iași, Secțiunea I, Biologie Animală*, LVI, 257-269, (2010).
5. Arteni O.M., **Rosca I.** Some morphological features of carp (*Cyprinus carpio* Linnaeus, 1758) in different stages of development. *Animal Biology and Animal Husbandry ABAH Bioflux* 2(1), 47-52, (2010).

6. Surugiu V., **Rosca I.** Feeding ecology of *Apollonia melanostoms* (Pallas, 1811) and *Solea nasuta* (Pallas, 1811) from Agigea-Eforie Nord area. *Studia Universitatis « Vasile Goldis »*, *Seria Stiintele Vietii*, 14, 153-158, (2004).

## 5. Articole/studii publicate în volumele unor manifestări științifice internaționale recunoscute din țară și din străinătate:

1. Tudose I.V., **Rosca I.**, Romanitan C., Ionescu O.N., Petrotos K., Zaoutsos S., Suche M.P., Koudoumas E. PLA nanocomposites with antimicrobial action, based on olive fruit polyphenols and citrus fruit extracts encapsulated in Maltodextrin. CAS 2021 Proceedings - 2021 International Semiconductor Conference October 6-8, Romania, ISBN 978-0-7381-2665-4, 269-272, (2021)
2. Anisie A., **Rosca I.**, Marin L. Functionalized chitosan nanofibers with enhanced antimicrobial activity for burn wound healing applications. The 1<sup>st</sup> International Electronic Conference on "Green" Polymer Materials , 5–25 November 2020 10.3390/CGPM2020-07216, (2020)
3. Varganici C.D., Rosu L., Mustata F., Rosu D., **Rosca I.**, Rusu T., Marlica E., Teaca C.A., Epoxidized vegetable oils for Wood protection against fungal degradation, Proceedings of the International Conference "Wood Science and Engineering in the Third Millennium", 12<sup>th</sup> edition, ICWSE 2019, Nov. 7-9, 2019, Brasov, Romania, 408- 412, (2019).
4. Petrovici A.R., **Rosca I.**, Ciolacu D.E., Dextran biosynthesis by new isolated PP34 lactic acid bacteria. The XXI International Conference Inventica 2017, Iasi, 109-115, (2017).
5. Bostănar A.-C., Hnatiuc E., **Rosca I.**, Vasiliu A. L., Doroftei M., Ursu E. L., Ailincăi L.I., Năstasă V., Mareș M., Long-term interactions of PAW with normal tooth structure and different dental biomaterials; Proc. SPIE 10010, Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies VIII, 100103F (December 14, 2016); doi:10.1117/12.2249109, (2016).
6. Bostanaru A.C., Nastasa V., **Rosca I.**, Hnatiuc E., Mares M., Antimicrobial effect of non-thermal plasma activated water against food-born pathogens, Proceedings of the International Conference modern Technologies in the food industry, 20-22 october 2016, Chisinau, Rep.Moldova, Tecniccal Info, pp.342-347, (2016).

## 6. Proiecte de cercetare-dezvoltare-inovare pe baza de contract/grant

### 6.1. Granturi/contracte cu finanțare din străinătate:

1. **Cod SMIS 2014+108983** Infra SupraChem Lab – Centru de Cercetări avansate în domeniul chimiei supramoleculare, responsabil proiect Narcisa Marangoci, beneficiar: ICMPP, perioada derularii: 2021-2023, buget: 21.993.436,57 ron
2. **ERA-IB 2 (program Horizon 2020):** Pro-Wood - Wood and derivatives protection by novel bio-coating solutions (2017-2019), responsabil partener ICMPP: Dr. Teodora Rusu, perioada derularii: 2016-2019, buget: 250 000 euro.
3. **POC-A1-A1,1,4-E-2015**, Polimeri coordinativi porosi noi cu liganzi organici de dimensiuni variabile pentru stocarea gazelor (POCPOLIG), responsabil proiect Vasile Lozan, beneficiar: ICMPP, perioada derularii: 2016-2020, buget: 8.952.378 ron.
4. **SupraChem Lab – ERA CHAIR initiative H2020-WIDESPREAD-2014-2015**, contract 667387, responsabil proiect: M. Pinteală, T. Rusu, perioada derularii: 2015-2021, buget: 2 500 000 euro.
5. **ESTROM** (Environmental Science & Technology in Romania) “Chemical and Biological Monitoring of Persistent Organic Pollutants (POP’s) in the River Bahlui”, Swiss National Science Foundation. director proiect: Prof. Dr. Luiz Felipe de Alencastro, University of Lausanne, Switzerland; perioada derulării: 1.04.2005-30.12.2007; beneficiar: Universitatea “Alexandru Ioan Cuza”, Facultatea de Biologie; buget: 130 000 CHF.
6. **CTM2004-00740/MAR** Latitudinal diversity in the deep-sea bottoms of the Atlantic Ocean (DIVA): biodiversity and bathymetric distribution (100-2000 m) in the NW off the coasts of Galicia. Reponsabi proiect: Victoriano Urgorri Carrasco, beneficiar: Institutul de Acvacultura, Universitatea Santiago de Compostela, 2006, buget: 120750 eur

## 6.2. Granturi și contracte în țară:

1. **PN-III-P1-1.1-TE-2021-0739** Nanoparticule de oxizi metalici - alternative noi și eficiente pentru sterilizarea duodenoscoapelor (NanoClean), responsabil proiect: Dr. **Irina Rosca**, beneficiar: ICMPP, perioada desfasurarii: 2022-2024, buget:450.000 ron.
2. **PN-III-P4-ID-PCE-2020-1541** Zwitterionic porous microparticles containing zein and betaine moieties with antimicrobial activity and drug delivery capabilities responsabil proiect: Dr. Marcela Mihai, beneficiar: ICMPP, perioada desfasurarii: 2021-2023, buget: 1.198.032 ron.
3. **PN-III-P4-ID-PCE-2020-1523** TM Vector -Vectori moleculari versatili, destinați transportului și eliberării de gene și medicamente, în lupta împotriva cancerului, responsabil proiect: Dr. Mariana Pinteala, beneficiar: ICMPP, perioada desfasurarii: 2021-2023, buget: 1200000 ron.

4. **PN-III-P4-ID-PCE2020-2717** Nanomateriale ecologice pe baza de chitosan pentru aplicatii de interes contemporan, responsabil proiect: Dr. Luminita Marin, beneficiar: ICMPP, perioada desfasurarii: 2021-2023, buget: 1,198,032 ron.
5. **PN-III-P2-2.1-PED2019-5071** BurnHeal, Bandaj resorbabil cu eliberare controlata de norfloxacin pentru vindecarea arsurilor, responsabil proiect: Dr. Luminita Marin, beneficiar: ICMPP, perioada desfasurarii: 2020-2023, buget: 600 000 ron.
6. **PN-III-P1-1.1-TE-2019-0604** Comportamentul în condiții simulate de mediu a unor noi sisteme polimerice multicomponente pentru materiale de acoperire rezistente la flacără, responsabil proiect: Dr. Cristian-Dragoș Varganici, beneficiar: ICMPP, perioada desfasurarii: 2020-2022, buget: 431900 ron
7. **37PCCDI/2018** Platforme teranostice antitumorale pe bază de Carbon Dots și matrice polimerice (TERADOT), responsabil partener 1 Dr. Mariana Pinteala, beneficiar: ICMPP, perioada desfasurarii: 01.03.2018 – 31.12.2020, buget: 230000 euro
8. **PN-III-P4-ID-PCCF-2016-0050**, Mimicking living matter mechanisms by five-dimensional chemistry (5D-nanoP), responsabil: Prof. Aatto LAAKSONEN, beneficiar: ICMPP, perioada derularii 2018-2022, 8450000 ron.
9. **PN-III-P1-1.1-MC-2019-1059**, nr. 196/28,10,2019, Proiect de mobilitate pentru cercetatori, responsabil: Dr. **Irina Rosca**, beneficiar: ICMPP, perioada derularii: noiembrie-decembrie 2019, buget: 21587,91.
10. **13PCCDI/04.04.2018**, Terapii inteligente pentru boli non-comunicabile bazate pe eliberarea controlata de compusi farmacologici din celule incapsulate dupa manipulare genetica sau bionanoparticule vectorizate/ INTERA, responsabil: Dr. Gh. FUNDUEANU, perioada derularii: 04.04.2018-01.11.2020, buget ICMPP: 296137eur.
11. **PN-III-P1-1.1-MC-2017-2094**, Proiecte de mobilitate pentru cercetători, responsabil: Dr. **Irina Rosca**, beneficiar: ICMPP, perioada derularii: martie 2018, buget: 21808 ron.
12. **PN-III-P1-1.1-MC-2018-0726**, Proiecte de mobilitate pentru cercetatori, responsabil: Dr. **Irina Rosca**, beneficiar: ICMPP, perioada derularii: septembrie-octombrie 2018, buget: 21181,94 ron.
13. **Satellite hybrid micro-thrusters/SATY**, Programul de Cercetare-Dezvoltare-Inovare pentru Tehnologie Spatiala si Cercetare Avansata –STAR CDI Nr. 169/20.07.2017, responsabil partener ICMPP dr. Lilia Clima, director Gurlui Silviu Octavian, perioada derularii: 2017-2019, buget: 111 111 euro.

14. **Bilateral/multilateral - Romania-Belgium 99BM/2016** “Nanoplatforme Dinamice Multifunctionale pentru Aplicatii Biomedicale Tintite, responsabil proiect: Dr. Lilia Clima, beneficiar: ICMPP, perioada derularii: 2017-2018, buget: 25830 ron.
15. **Proiect bilateral 26BM/16.09.2016**, Sinteza si evaluarea in *vitro/in vivo* de noi conjugate cu activitate antimicrobiana, responsabil proiect: Dr. Narcisa Marangoci, beneficiar: ICMPP, perioada derularii: 2016-2018, buget: 35 000 ron.
16. **PN-II-RU-TE-2014-4-0558**, Innovative biopolymer-based hydrophilic matrices with tailored properties for medical application (MATINOV), responsabil proiect: Dr. Diana Elena Ciolacu, beneficiar: ICMPP, perioada derularii 2015-2017, buget: 550.000 ron.
17. **PN-II-ID-PCCE-2011-2-0028**, Biologically inspired systems for engineered structural and functional entities, responsabil proiect: dr. Mariana Pinteala, beneficiar: ICMPP, perioada desfasurarii 2012-2015, buget: 4.705.813 ron.
18. **BD 320/2008**, Aspecte privind hrănirea la unele specii bentonice de pești din dreptul litoralului românesc al Mării Negre (sectorul Agigea - Eforie Nord); director proiect: **Irina Rosca**; perioada derulării: aprilie 2008-decembrie 2010; beneficiar: Universitatea “Alexandru Ioan Cuza”, Facultatea de Biologie; buget: 49500 RON.
19. **PN II IDEI 116-1031/2009**, Dezvoltarea și implementarea unor procedee moderne de monitoring integrat al comunităților epibentice asociate substratului dur de la litoralul românesc al Mării Negre; director proiect: Conf.dr. Victor Surugiu; perioada derulării: 1.02.2009-31.10.2010; beneficiar: Universitatea “Alexandru Ioan Cuza”, Facultatea de Biologie; buget: 94537.98 RON.
20. **Cercetare de excelenta, modul I P-CD 634/2005**, Centru de expertiză pentru exploatarea durabilă a ecosistemelor (CEXDUREC). Studiu de caz: Ecosistemele terestre și acvatice periurbane din bazinul râului Ciric, de la nord de municipiul IAȘI; director proiect: Prof. dr. Neculai Ștefan; perioada derulării: 2005-2008; beneficiar: Universitatea “Alexandru Ioan Cuza”, Facultatea de Biologie; buget: 415000 EUR.
21. **AT 164/2005**, Fundamentarea ecologică a utilizării polichetelor pentru diagnoza calității apei și sedimentelor de la litoralul românesc al Mării Negre; director proiect: Conf. dr. Victor Surugiu; perioada derulării: 2005-2006; beneficiar: Universitatea “Alexandru Ioan Cuza”, Facultatea de Biologie; buget: 37200 RON.
22. **AT 640/2003**, Evaluarea nivelului de eutrofizare a apelor costiere de la litoralul românesc al Mării Negre pe baza studiului comunităților de polichete; director proiect: Conf. dr. Victor

Surugiu; perioada derulării: 2003-2004; beneficiar: Universitatea “Alexandru Ioan Cuza”, Facultatea de Biologie; buget: 10407 RON.

### 6.3 Contracte extrabugetare:

1. **Research Services Contract no. 4598**, beneficiar Zeelandia H.J. Doeleman bv, Contract prestari servicii de cercetare stiintifica cu IMM, Director de proiect Stoica Irina, responsabil proiect ICMPP: dr.Pinteala Mariana, perioada derularii 2012-2014; buget: 60.000 EURO.

## 7. Alte lucrări și contribuții științifice (conferințe, comunicări, postere prezentate la manifestări științifice, indice Hirsch, etc.).

**Indice Hirsch : 11**

### 7.1. Comunicări prezentate la manifestări științifice internaționale:

1. Marin L., Ailincăi D., Cibotaru S., Anisie A., **Rosca I.**, Mititelu-Tartau L. Biodegradable chitosan based nanofibers with broad spectrum antimicrobial activity for wound healing applications. **EPF European Polymer Federation**, Prague, Czech Republic, June 26 - July 1, 2022
2. Andreica B. I., **Rosca I.**, Marin L. Design and properties of newly developed imino-quaternized chitosan biomaterials. **12<sup>th</sup> International Conference on Materials Science and Engineering (BraMat 2022)**, Brasov, Romania, March 9-11, 2022
3. Andreica B. I., **Rosca I.**, Marin L. Development of biomaterials based on quaternized chitosan. **XXXII edition of the International Congress of “Apollonia” University of Iasi “By promoting excellence, we prepare the future”**, Iasi, Romania, February 28 – March 2, 2022
4. **Rosca I.**, Varganici C.-D., Rosu L., Hamciuc C., Rosu D., Mustata F. Antifungal properties of new multicomponent polymer systems as flame retardant coatings. **28<sup>th</sup> Progress in Organic and Macromolecular Compounds, MACRO Iasi 2021**, Iasi, Romania, October 7 - 9, 2021
5. Vasiliu A.-L., Zaharia M.-M., Bazarghideanu M.-M., **Rosca I.**, Peptanariu D., Lungan M.-A., Mihai M. Hydrophobic biocompatible CaCO<sub>3</sub>/cellulose material with potential application in wound dressing. **28<sup>th</sup> Progress in Organic and Macromolecular Compounds, MACRO Iasi 2021**, Iasi, Romania, October 7 - 9, 2021
6. Ailincăi D., **Rosca I.**, Morariu S., Mititelu-Tartau L., Angheloiu M., Marin L. Biocompatible hydrogels with broad-spectrum antimicrobial activity. **28th Progress in Organic and Macromolecular Compounds, MACRO Iasi 2021**, Iasi, Romania, October 7 - 9, 2021



7. Fifere A., Turin-Moleavin I.A., Iacobescu A., Lungoci A. L., **Rosca I.**, Pinteala M. Conjugated metal oxides nanoparticles as inorganic antioxidants. **5DNanoP Workshop October 11<sup>th</sup>**, 2021
8. Anisie A., **Rosca I.**, Marin L. Functionalized chitosan nanofibers with enhanced antimicrobial activity for burn wound healing applications. **The 1<sup>st</sup> International Electronic Conference on “Green” Polymer Materials 2020**, 5–25 November 2020
9. Varganici C.-D., Roșu L., Mustață F., Roșu D., **Rosca I.**, Rusu T., Marlică E., Teacă C.-A., Epoxidized vegetable oils for wood protection against fungal degradation; **The 12th edition of the International Conference “Wood Science and Engineering in the Third Millennium” ICWSE 2019**, Brașov, România, 7-9 noiembrie 2019.
10. **Rosca I.**, Rosu L., Varganici C.-D., Mustata D., Rusu T., Rosu D., Velasco-Rodriguez O., Fil M., Kosalkova K., Barreiro C., Fungal resistance of Wood treated with natural and synthetic derived epoxy resins. **Balkan Fungus 2018 First Balkan Conference on Medical Mycology and Mycotoxicology**, Timisoara, Romania, 13-15 September 2018.
11. Ursu E.-L., **Rosca I.**, Antimicrobial properties of G-quadruplex guanosine-single walled carbon nanotubes hydrogels, **Balkan Fungus 2018 First Balkan Conference on Medical Mycology and Mycotoxicology**, Timisoara, Romania, 13-15 September 2018.
12. Lungoci A.L., Pinteala M., Petrovici A.R., **Rosca I.**, Turin-Moleavin I.A., Fifere A., **Balkan Fungus 2018 First Balkan Conference on Medical Mycology and Mycotoxicology**, Timisoara, Romania, 13-15 September 2018.
13. Diaconu A., Clima L., **Rosca I.**, Gavril G., Pinteala M., Barboiu M., Vincent S., Dynamic constitutional frameworks (DCFs) as inhibitors for biofilm formation, **Balkan Fungus 2018 First Balkan Conference on Medical Mycology and Mycotoxicology**, Timisoara, Romania, 13-15 September 2018.
14. Minea B., Nastasa V., Bostanaru A.-C., **Rosca I.**, Marincu I., Mederle O.A., Goriuc A., Foia L., Man A., Pinteala M., Mares M., Pathogenic yeast species in Romania and their susceptibility to azoles and echinocandins. **Balkan Fungus 2018 First Balkan Conference on Medical Mycology and Mycotoxicology**, Timisoara, Romania, 13-15 September 2018.
15. Petrovici A.R., Silion M., **Rosca I.**, Ciolacu D., The four different culture media influences the polymer biosynthesis. **SICHEM 2018**, Bucharest, Romania, 6-7 September 2018.
16. Varganici C.-D., Rosu L., Mustata F., Rusu T., Rosu D., **Rosca I.**, Tudorachi N., Teaca C.-A., Thermal behavior of wood coated with natural and synthetic epoxy based materials; **12th European Symposium on Thermal Analysis and Calorimetry (ESTAC12)**, Brasov, Romania, 27 - 30 August 2018.

17. **Rosca I.**, Bălan G, Ursu E.-L., Bostănaru A.-C., Doroftei F., Hnatiuc E., Năstasă V., Trifan A., Ștefănescu G, Mareș M., Plasma activated water (PAW) - a new alternative for endoscope reprocessing, **Workshop: Bio-medical applications of non-thermal plasma discharges**, Iasi, Romania, 20 October 2017.
18. Bostănaru A.-C., Hnatiuc E., Doroftei F., Vasiliu L., **Rosca I.**, Năstasă V., Mareș M., Morphological and chemical aspects in mice teeth after long-term PAW administration, **Workshop: Bio-medical applications of non-thermal plasma discharges**, Iasi, Romania, 20 October 2017.
19. Petrovici A.R., **Rosca I.**, Nicolescu A., Ciolacu D.E, Dextran biosynthesis by new isolated PP34 lactic acid bacteria, **The XXI International Conference Inventica 2017** , Iasi, Romania, 29-30 June, 2017.
20. Petrovici A.R., **Rosca I.**, Ciolacu D.E., Fermentative production of dextran by *Weissella confusa*, its characterization and possible applications, Cosmetic and flavor products (RISCFP) “Nature-health-beauty”, Iași, Romania, May 31<sup>st</sup>- June 2<sup>nd</sup> 2017.
21. Bostanaru A.C., Hnatiuc E., **Rosca I.**, Vasiliu A.L., Doroftei M., Ursu L., Ailincăi L.I., Nastasa V., Long thermal interactions of PAW with normal tooth structure and different dental biomaterials, ATOM-N 2016, **8th Edition of the International Conference Advanced Optics in Optoelectrics, Microelectronics and Nanotechnologies**, Constanta, 26-28 august 2016.
22. Petrovici A.R., **Rosca I.**, Nicolescu A., Pinteală A., Ciolacu D., The influence of the culture medium composition on the exopolysaccharide biosynthesis, **12<sup>th</sup> International Conference on Colloid and Surface Chemistry**, Iași, România, 16-18 May 2016.
23. **Rosca I.**, Zamfirescu Ș.R., Mânzu C.C., Surugiu V., Feeding ecology of the Black Sea benthic fishes. Actual problems of protection and sustainable use of the animal world diversity, **Intern. Conf. of Zoologists: dedicated to the 50th anniversary from the foundation of Inst. of Zoology of ASM**, Chișinău, Rep. Moldova, 13-14 October 2011.
24. Strugariu A., Zamfirescu Ș.R., Popescu I.E., **Rosca I.**, Gherghel I, Preliminary data on the feeding ecology of the critically endangered Moldavian meadow viper (*Vipera ursinii moldavica*). **16<sup>th</sup> European Congress of Herpetology & Deutscher Herpetologentag SEH & DGHT**, Luxemburg & Trier, September 25-29 2011.
25. **Rosca I.**, Mânzu C., Feeding ecology of knout goby (*Mesogobius batrachocephalus* Pallas, 1814) from the Romanian Black Sea (Agigea – Eforie Nord area), **Acvapeda – Networking waters of the world**, Cluj Napoca, Romania, 3-4 December 2010.
26. **Rosca I.**, Feeding ecology of round goby (*Neogobius melanostomus* Pallas, 1818) from the Black Sea (Agigea-Eforie Nord area), **International Symposium ecology and protection of ecosystems 9<sup>th</sup> edition**, Bacău, 18<sup>th</sup> -20<sup>th</sup> of November 2010.

27. **Rosca I.**, Surugiu V., Marine Trophic Level of benthic fishes – a measure of Black Sea biodiversity, **Ecoport 8 Environmental management of transborder corridor ports – 2nd Transnational Event Bucharest**, 21-22 October 2010.

### 7.2. Comunicări prezentate la manifestări științifice naționale

1. Rosca I., Fifere A., Turin-Moleavin I.-A., Ursu E.-L., Iacobescu (Sarghi) A., Balan G. G. New options for duodenoscope reprocessing using metal oxide nanoparticles. **a XXXVI-a Conferință Națională de Chimie**, 04-07 octombrie 2022
2. Fifere A., Iacobescu (Sarghi) A., Turin Moleavin I.-A., **Rosca I.**, Pinteala M. Iron oxide nanoparticles loaded with protocatechuic acid and antibiotics as free radical scavengers and antimicrobial agents; **a XXXVI-a Conferință Națională de Chimie**, 04-07 octombrie 2022
3. Anisie A., **Rosca I.**, Sandu A.-I., Bele A., Marin L. Biodegradable imino-chitosan nanofibers as wound dressing materials. **ICMPP – Open Door To The Future Scientific Communications Of Young Researchers-MacroYouth**, 19 noiembrie 2021
4. Andreica B.-I., **Rosca I.**, Marin L. Synthesis and characterization of novel imine derivatives of quaternary ammonium salt of chitosan. **ICMPP – Open Door To The Future Scientific Communications Of Young Researchers-MacroYouth**, 19 noiembrie 2021
5. Anisie A., **Rosca I.**, Marin L. Iminoboronate-chitosan nanofibers with antimicrobial activity for burn wound healing applications. **Sesiunea de Comunicari Stiintifice a Tinerilor Cercetatori Poarta Deschisa spre Viitor**, Iasi, Romania, 19 noiembrie 2020
6. **Rosca I.**, Zamfirescu Ș.R., Feeding selectivity of littoral benthic fish, **Simpozion dedicat Anului Internațional al Biodiversității “Sesiunea Științifică Biodiversitate și Dezvoltare Durabilă”**, Iași, România 15-16 octombrie 2010.
7. Manzu C, Surugiu V, **Rosca I.**, Distribuția, starea actuală și macrofauna asociată pajistilor cu *Zostera noltii* Hornem. De la litoralul Românesc al Marii Negre. **Simpozion dedicat Anului Internațional al Biodiversității “Sesiunea Științifică Biodiversitate și Dezvoltare Durabilă”**, Iași, România 15-16 octombrie 2010.
8. **Rosca I.**, Surugiu V, Feeding ecology of some benthic species of fish inhabiting rocky mussel beds from Agigea-Eforie Nord area. **Biologia in anul omagial Charles Darwin. Sesiunea Științifică dedicată lui Charles Darwin: 200 de ani de la naștere și 150 de ani de la publicarea “Originii speciilor”**, Iasi, 06-07 noiembrie 2009.

9. Arteni M.O, **Rosca I.**, Studii privind unele aspecte biometrice comparative pe grupe de varsta la *Cyprinus carpio* și *Silurus glanis*. **Biologia in anul omagial Charles Darwin. Sesiunea Științifică dedicată lui Charles Darwin: 200 de ani de la naștere și 150 de ani de la publicarea "Originii speciilor"**, Iași, 06-07 noiembrie 2009.
10. **Roșca I.**, Urgorri Carrasco V., Analysis of scleretic structures of *Leptogorgia lusitanica*, Stiasny, 1937 from San Cristobal-Ferrol of the Atlantic Ocean, Spain, **3<sup>rd</sup> National Conference of Aquatic Biology "Biodiversity and Antropic Impact on the Black Sea and Litoral Ecosystems of the Black Sea"**, Biological Marine Station "Prof.dr. Ioan Borcea", Agigea, Romania, 20-21 octombrie 2006.

### 7.3. Postere prezentate la manifestări științifice internaționale:

1. Nita L.E., Chiriac A.P., Croitoriu A., Rusu A.G., Ghilan A., Serban A.M., **Rosca I.**, Bargan A.. New antibacterial aerogels based on synthetic polymers and CNF. **2<sup>nd</sup> International Conference on Aerogels for Biomedical and Environmental Applications – AERoGELS 2022**, Athens, Greece, June 29 – July 1, 2022
2. Anisie A., **Rosca I.**, Sandu A.I., Bele A., Marin L. Imination of chitosan fibers towards potential antimicrobial wound dressings. **EPF European Polymer Federation 2022, Prague, Czech Republic**, June 26 - July 1, 2022
3. Andreica B.I., **Rosca I.**, Marin L. Biomaterials based on imino-quaternary ammonium salts of chitosan; synthesis and characterization. **EPF European Polymer Federation 2022, Prague, Czech Republic**, June 26 - July 1, 2022
4. Tudose I.V., **Rosca I.**, Romanitan C., Ionescu O.N., Petrotos K., Zaoutsos S., Suche M.P., Koudoumas E. PLA nanocomposites with antimicrobial action, based on olive fruit polyphenols and citrus fruit extracts encapsulated in Maltodextrin. **International Semiconductor Conference** October 6-8, Romania, 2021
5. Lungu R., Anisie A., **Rosca I.**, Sandu A.-I., Ailincăi D., Marin L. Double-functionalized chitosan nanofibers for wound healing. **28<sup>th</sup> Progress in Organic and Macromolecular Compounds, MACRO Iasi 2021**, Iasi, Romania, October 7 - 9, 2021
6. Varganici C.-D., Rosu L., Mustata F., Rosu D., **Rosca I.** Thermal behaviour and fungal protection of composites based on wood and natural and synthetic epoxy resins cured with a rosin acid derivative. **6<sup>th</sup> Central and Eastern European Conference on Thermal Analysis and Calorimetry & 15<sup>th</sup> Mediterranean Conference on Calorimetry and Thermal Analysis**, Split, Croatia, 20-24 July 2021.

7. **Rosca I.**, Balan G., Ursu E.L., Doroftei F., Bostanaru A.C., Hnatiuc E., Nastasa V., Sandru V., Stefanescu G., Trifan A., Mares M, Plasma activated water – a new and effective alternative for duodenoscope reprocessing, **4th International Conference on Bioinspired and Biobased Chemistry and Materiales**, Nice, France, October 14-17, 2018.
8. Velasco-Rodriguez O., Beccero-Recio D., Kosalkova K., Garcia-Calvo L., del Albol-Alonso A., **Rosca I.**, Varganici C.D., Josefsen K., Sletla H., Sola-Landa A., Rusu T., Barreiro C., Pro-Wood: protection of Wood by novel bio-based solutions, **VII Congreso Nacional de Microbiologia Industrial y Biotecnologia Microbiana**, Cadiz, Espana, 6-8 Junio 2018.
9. Lungoci A.L., Pinteală M., Petrovici A.R., **Rosca I.**, Turin-Moleavin I.A., Fifere A., Biosynthesized dextran coated magnetic nanoparticles with antifungal activity, **Colocviul Franco-Român de Chimie Medicală**, ediția a IV-a, Iași, România, 5-7 octombrie 2017.
10. **Rosca I.**, Petrovici A.C, Fifere A., Ursu E.L., Nicolescu A., Bostănarul A.C., Mareș M., Marangoci N., Pinteală M., Natural exopolysaccharides as ecological excipients in drug delivery, **6th International Conference Ecological & Environmental Chemistry**, Chișinău, Republica Moldova, March 2-3, 2017.
11. Lungoci L., Marangoci N., Corciova A., Mircea C., **Rosca I.**, Fifere A, Pinteală M., Magnetic nanoparticles loaded with natural antioxidants for biomedical applications, **6th International Conference Ecological & Environmental Chemistry**, Chișinău, Republica Moldova, March 2-3, 2017.
12. **Rosca I.**, Minea B., Peptanariu D., Marangoci N.L., Fifere A., Mares M., Inclusion complexes of propiconazole nitrate with substituted  $\beta$ -cyclodextrins. II *In vitro* assessment of antifungal properties, **International Conference and Exhibition on Materials Chemistry**, Valencia, Spain, 31<sup>st</sup> March- 1<sup>st</sup> April 2016.
13. Marangoci N.L., Minea B., Nicolescu A., Neamtu A., Varganici C.D., **Rosca I.**, Inclusion complexes of propiconazole nitrate with substituted  $\beta$ -cyclodextrins. I-Synthesis, characterization and *in silico* assessment, **International Conference and Exhibition on Materials Chemistry**, Valencia, Spain, 31<sup>st</sup> March- 1<sup>st</sup> April 2016.
14. **Rosca I.**, Petrovici A.R., Peptanariu D., Nicolescu A., Dodi G., Ivanov I-C., Bostanaru A.-C., Mares M., Ciolacu D., Pinteală M., Biosynthesis of exopolysaccharides by *Weissella confusa* and its *in vitro* functional characteristics, **XII<sup>th</sup> French-Romanian Polymer Meeting**, Sophia Antipolis, France, 5-7 September 2016.

15. **Rosca I.**, Petrovici A.R., Ciolacu D., Innovative hydrophilic matrices based on exopolysaccharides. I. Biosynthesis and characterization of exopolysaccharides from lactic acid bacteria, **SFNano European Nanomedicine Meeting**, Grenoble, France, 7-9 December 2015.
16. Petrovici A.R., **Rosca I.**, Stoica I., Doroftei F., Niculescu A., Simionescu N., Pinteală M., Caractérisation des exopolysaccharides biosynthetisées du *Lactobacillus* sp., **Colloque Franco-Roumain de Chimie Appliquee**, Montpellier, France, 15-18 Septembre 2014.
17. Surugiu V., Mânzu C, **Rosca I.**, Teacă A., Community structure of macrozoobenthos associated with *Zostera noltii* Hornem. Meadows in the southern Romanian Black Sea coast, **40<sup>th</sup> The Mediterranean Science Commission CIESM Congress**, Marseille, France, 28<sup>th</sup> October-1<sup>st</sup> November 2013.
18. **Rosca I.**, Zamfirescu Ș.R., Feeding ecology of benthic fish as a measuring tool of Black Sea's biodiversity, **World Conference on Marine Biodiversity**, Aberdeen, Scotland, UK, 26-30 September 2011.
19. **Rosca I.**, Surugiu V., Mânzu, C., Macrobenthic fauna associated with *Zostera noltii* Hornem. beds in the southern Romanian Black Sea, **World Conference on Marine Biodiversity**, Aberdeen, Scotland, UK, 26-30 September 2011.
20. Gherghel, I., Mânzu, C., **Rosca I.**, Global modeling of fundamental niche and potential distribution of two wide-spread sea grasses (*Zostera noltii* and *Zostera marina*), **World Conference on Marine Biodiversity**, , Aberdeen, Scotland, UK, 26-30 September 2011.
21. **Rosca I.**, Novac A., Surugiu V., Feeding selectivity of some benthic fish from the rocky bottom of the Romanian Black Sea coast (Agigea area), **39<sup>th</sup> The Mediterranean Science Commission CIESM Congress**, Venice, Italy, 10-14 May 2010.
22. **Rosca I.**, Surugiu V., Feeding ecology of the round goby (*Neogobius melanostomus*) in a benthic fish assemblage inhabiting rocky mussel beds from the Romanian Black Sea shore (Agigea-Eforie Nord area), **44<sup>th</sup> European Marine Biology Symposium**, Liverpool, UK, 7-11 September 2009.

#### 7.4. Postere prezentate la manifestări științifice naționale:

1. Ursu C., **Rosca I.**, Iacobescu (Sarghi) A., Ursu E.-L. Laser assisted synthesis of Ag<sub>2</sub>O/Ag nanoparticles with application in duodenoscope disinfection. **XXXVI-a Conferință Națională de Chimie**, 04-07 octombrie 2022

2. Turin-Moleavin I.-A., Iacobescu (Sârghi) A., **Rosca I.**, Fifere A., Pinteala M. Magnetic nanoantioxidants based on magnetite conjugated with cerium oxide. **a XXXVI-a Conferință Națională de Chimie**, 04-07 octombrie 2022
3. Bejan D., Shova S., **Rosca I.**, Sandu A. I., Marangoci N.L. Synthesis, structures and characterization of novel n-heterocyclic ligands. **a XXXVI-a Conferință Națională de Chimie**, 04-07 octombrie 2022
4. David G., Bargan A., **Rosca I.**, Iachim M., Pricop G., Matrici polimere hibride – evaluare pentru aplicatii biomedicale; *Al 13-lea Simpozion International de Produse Cosmetice si Aromatizate*, Iasi, Romania 4-7.06.2019.
5. Diaconu A., Rusu B.G., Ursu E.L., Craciun B.F., **Rosca I.**, Ursu C., Pinteala M., Nica P.E., Toward high quality carbon nanostructures: carbon dimers enrichment in excimer laser produced plasma. IasiCHEM 2018, Iasi, Romania, 25-26 octombrie 2018.
6. Bostănar A.-C., Mareș M., Pinteală M., Coroabă A., Fifere A., Ursu E.L., **Rosca I.**, Analiza instrumentală a biomasei bacteriene tratată cu plasma rece prin tehnici de spectroscopie vibrațională. **Zilele Academice Ieșene**, Iași, România, 24-26 Septembrie 2015.

### 7.5. Stagii de cercetare

1. Grant de mobilitate în cadrul Programului Socrates-Erasmus la Universitatea din Santiago de Compostela, Spania (20 februarie - 20 iulie 2006).

### 7.6. Citări: 442

### 7.7. Indice Hirsch: 11

- 7.8. **Premii:** Premiul “Nicolae Simionescu” 2018 pentru un grup de 7 lucrari pe tema “Molecule active in combaterea infectiilor nosocomiale”