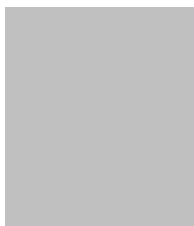


PERSONAL INFORMATION



MANAILA ELENA

📍 36th Ion Tuculescu St., bl. 21A, sc. 1, ap. 33, Bucharest, Romania

☎ 0040214575307 📠 0040723055723

✉ elena.manaila@inflpr.ro

Sex Female | Date of birth 28/12/1974 | Nationality Romanian

WORK EXPERIENCE

September 1998 – May 2000

Research Asistent

National Institute for Lasers, Plasma and Radiation Physics; 409 Atomistilor St., Magurele, Ilfov, 077125, Romania; <http://www.inflpr.ro>

Applications of accelerated electrons in materials processing

Business or sector Research and Development

May 2000 – May 2001

Research scientist

National Institute for Lasers, Plasma and Radiation Physics; 409 Atomistilor St., Magurele, Ilfov, 077125, Romania; <http://www.inflpr.ro>

- Interaction of accelerated electrons and microwaves with matter
- Interaction of microwaves with matter
- Electron beam chemical dosimetry;
- Material processing in electron beam and microwave fields

Business or sector Research and Development

May 2001 – November 2020

Senior research scientist III

National Institute for Lasers, Plasma and Radiation Physics; 409 Atomistilor St., Magurele, Ilfov, 077125, Romania; <http://www.inflpr.ro>

- Interaction of accelerated electrons and microwaves with matter
- Interaction of microwaves with matter
- Electron beam chemical dosimetry;
- Chemical synthesis and materials processing in electron beam and microwave fields (polymerizations, grafting, cross-linking)
- Physico-chemical and structural characterization of materials processed in the radiation field (by chemical methods, spectrophotometry and infrared spectroscopy)

Business or sector Research and Development

November 2020 - present

Senior research scientist II

National Institute for Lasers, Plasma and Radiation Physics; 409 Atomistilor St., Magurele, Ilfov, 077125, Romania; <http://www.inflpr.ro>

- Interaction of accelerated electrons and microwaves with matter
- Interaction of microwaves with matter
- Electron beam chemical dosimetry;
- Chemical synthesis and materials processing in electron beam and microwave fields (polymerizations, grafting, cross-linking)
- Physico-chemical and structural characterization of materials processed in the radiation field (by chemical methods, spectrophotometry and infrared spectroscopy)

Business or sector Research and Development

EDUCATION AND TRAINING

From January 2017- to present

1st level licence to pursue authorized activities in the nuclear field,
no. 5/2017 – valid until January 2022

Issued by the Romanian National Commission for Nuclear Activities Control (CNCAN)

Field: Particle Accelerators

June 2008

Course and training on "Validation and Process Control for Electron Beam Sterilization – Electron Beam Dosimetry Using the Latest Dosimetric Systems "

Risø National Laboratory, Roskilde, Denmark

Electron Beam Dosimetry using dosimetric films and alanine

From October1999 – March 2004

PhD

"Politehnica" University of Bucharest, Faculty of Industrial Chemistry, Romania

PhD in Engineering Sciences – Chemical Engineering; Thesis title: Synthesis of new materials by radioinduced or microwave polymerization and crosslinking

Master's degree

"Politehnica" University of Bucharest, Faculty of Industrial Chemistry, Romania

MSc in Chemistry and technology of macromolecular compounds

From December 1998 – to February 1999

October 2002

International school "High Current Plasma Experiments and Diagnostics-stage II"

Institute of Plasma Physics and Laser Microfusion Training Center, Warsaw, Poland

Plasma physics – experiments and diagnostic

From 1993- to 1998

Physicist/Bachelor of Science

"Politehnica" University of Bucharest, Faculty of Industrial Chemistry, Romania

BSc in Chemistry, Chemistry and technology of macromolecular compounds

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2
	Replace with name of language certificate. Enter level if known.				
French	A2	A2	A2	A2	A2
	Replace with name of language certificate. Enter level if known.				

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

Communication skills

- Good team spirit gained as a collaborator / project manager in over 20 research projects in which I have participated since my employment in INFLPR;
- Very good communication skills, clarity / eloquence in presenting ideas, which were advantages in situations where they were required - interaction with members of the research teams I was part of, oral presentations at national and international conferences, participation Workshops and Symposiums or internships, national and international;
- Very good capacity for analysis and synthesis, flexibility in thinking and action, perseverance;
- Ability to make decisions and take responsibility for decisions made;
- Altruism in the relationship with colleagues and partners;

Organisational / managerial skills

As Project Manager, I coordinated the members of the working teams so that the project's objectives were fulfilled.

In the sense, I have set precise tasks for all the members of the research teams I have conducted, proportionate to each other's training and workload, so that they do not overload a team member with more tasks than they can do, not distribute the same task of several team members if that was not the case, there were no team members to carry out tasks in a longer time than necessary, not to draw contradictory tasks, to disseminate the results of the projects as much as possible, so that in the end the activities assumed under the contracts are totally accomplished and at the established deadlines. Also, in order to manage the project budgets judiciously, I have always ensured the eligibility of the expenses, the purchase of materials and equipment according to the planning, but also with the necessities of the good development of the projects as well as the honest and stimulating remuneration of the research team members.

Job-related skills

Over 20 years of experience in the following fields:

- The use of accelerated electron beams and microwaves in the processing of materials (polymerizations, grafts, crosslinking, degradations), in order to obtain new materials or materials with improved properties as well as in their physico-chemical characterization (determination of residual monomer concentration in polymer and conversion coefficient of the monomer into polymer by chemical methods based on titration, determination of intrinsic viscosity, molecular weight, linearity coefficient, radius of rotation, degree of crosslinking and gel fraction, swelling parameters, efficiency and grafting efficiency, etc.) ;
- The use of electron beam for sterilization and microbial decontamination in order to preserve or treat spoiled food;
- Elaboration of specific methods and recipes for wastewater treatment from industrial activities which generates wastewater heavily loaded with organic / inorganic pollutants and especially those heavily loaded with heavy metals that are still extremely difficult to solve;
- Laboratory analyzes in order to the characterized of raw / treated wastewater (pH, Organic matter in suspension by CCO-Mn and CCO-Cr methods, biochemical oxygen consumption at 5 days - CBO5, turbidity, content of extractable substances with petroleum ethers, determination of metals heavy by spectrophotometric methods, etc.);
- Chemical dosimetry of accelerated electron beams, being the first person in INFLPR to adapt the chemical dosimetry of Co-60 sources to accelerated electron beams;- Dozimetria chimica a fasciculelor de electroni accelerati, fiind prima persoana din INFLPR care a adaptat dozimetria chimica a surselor de Co-60 la fascicule de electroni accelerati;
- FTIR spectroscopy, basic and special programs of UV-VIS spectrophotometers;
- Easy use of all basic instruments and devices with which a physico-chemical and microbiological analysis laboratory is equipped

Digital competence

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Independent user	Independent user	Independent user	Basic user	Basic user

Levels: Basic user - Independent user - Proficient user

[Digital competences - Self-assessment grid](#)

Replace with name of ICT-certificate(s)

Microsoft Office (Word, Excel, Power Point), Origin, Microsoft Access, Corel Draw

Driving licence

Driving licence category: B

ADDITIONAL INFORMATION

Publications

180 papers: 81 article in scientific journals (ISI Web of Knowledge), 21 article in proceedings indexed by ISI Web of Knowledge, 27 article in scientific journals with ISSN/ISBN, 51 article in conferences proceedings;

Presentations

75 articles presented at national/international

Books and book chapters

2 books and 5 book chapters

Patents

6 patents provided

Projects

Project manager - 6 projects; co-manager: 2 project; team member: 20 projects

Conferences

140 participation at conferences, symposia and workshops

References

Reviewer at Toxins, Materials and Polymers

Citations

970 (Web of Science)

Hirsh index

20 (Web of Science)

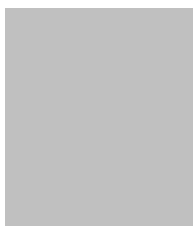
ANNEXES

List of publications (article, book and book chapter, patents) and projects

Data: **03.11.2025**

Name and signature: Dr. Ing. Elena MANAILA

INFORMAȚII PERSONALE



MANAILA Elena

📍 Str. Ion Tuculescu, Nr. 36, bl. 21A, sc. 1, ap. 33, Bucuresti, sector 3, Romania

☎ 0040214575307 📠 0040723055723

✉ elena.manaila@inflpr.ro

Sexul Femeiesc | Data nașterii 28/12/1974 | Naționalitatea Romana

EXPERIENȚA PROFESIONALĂ

Septembrie 1998 – Mai 2000

Asistent de cercetare

Institutul National de C-D pentru Fizica Laserilor, Plasmei si Radiatiei
Str. Atomistilor, Nr. 409, Magurele, Ilfov, 077125, Romania
<http://www.inflpr.ro>
Fizica interactiei electronilor accelerati cu materia

Mai 2000 – Mai 2001

Tipul sau sectorul de activitate Cercetare-Dezvoltare

Cercetator Stiintific

Institutul National de C-D pentru Fizica Laserilor, Plasmei si Radiatiei
Str. Atomistilor, Nr. 409, Magurele, Ilfov, 077125, Romania
<http://www.inflpr.ro>
Fizica interactiei electronilor accelerati cu materia
Fizica interactiilor microundelor cu materia
Dozimetria fasciculelor de electroni accelerati utilizand sisteme dozimetrice chimice
Procesarea de materiale cu fascicule de electroni accelerati si microunde

Mai 2001 – Noiembrie 2020

Tipul sau sectorul de activitate Cercetare-Dezvoltare

Cercetator Stiintific gr. III

Institutul National de C-D pentru Fizica Laserilor, Plasmei si Radiatiei
Str. Atomistilor, Nr. 409, Magurele, Ilfov, 077125, Romania
<http://www.inflpr.ro>
Fizica interactiei electronilor accelerati cu materia
Fizica interactiilor microundelor cu materia
Dozimetria fasciculelor de electroni accelerati utilizand sisteme dozimetrice chimice
Procesarea de materiale cu fascicule de electroni accelerati si microunde (polimerizari, grefari, reticulari)
Caracterizarea fizico-chimica si structurala a materialelor procesate in camp de radiatii

Noiembrie 2020 - prezent

Tipul sau sectorul de activitate Cercetare-Dezvoltare

Cercetator Stiintific gr. III

Institutul National de C-D pentru Fizica Laserilor, Plasmei si Radiatiei
Str. Atomistilor, Nr. 409, Magurele, Ilfov, 077125, Romania
<http://www.inflpr.ro>
Fizica interactiei electronilor accelerati cu materia
Fizica interactiilor microundelor cu materia
Dozimetria fasciculelor de electroni accelerati utilizand sisteme dozimetrice chimice
Procesarea de materiale cu fascicule de electroni accelerati si microunde (polimerizari, grefari, reticulari)
Caracterizarea fizico-chimica si structurala a materialelor procesate in camp de radiatii

Tipul sau sectorul de activitate Cercetare-Dezvoltare

EDUCAȚIE ȘI FORMARE

Ianuarie 2017- prezent

Certificat nivel 1: „Radioprotecția la utilizarea acceleratoarelor de particule”, nr. 5/2017 – valabil pana in ianuarie 2022

Eliberat de Comisia Națională Română pentru Controlul Activităților Nucleare (CNCAN)

Domeniu: Acceleratoare de particule

Iunie 2008

Curs și instruire: „Validarea și controlul proceselor pentru sterilizarea fasciculului de electroni - dozimetria cu fascicul electronic cu ajutorul celor mai recente sisteme dozimetrice”

Risø National Laboratory, Roskilde, Denmark

Dosimetria fasciculelor de electroni utilizand film dozimetric si alanina

Octombrie 1999 – martie 2004

Doctor in inginerie chimica

Universitatea Politehnica Bucuresti, Facultatea de Chimie Industriala , Bucuresti, Romania

Titlul tezei de doctorat: Sinteza de noi materiale prin reactii de polimerizare si reticulare radioinduse sau cu ajutorul microundelor

Decembrie 1999 – februarie 2004

Studii aprofundate

Universitatea Politehnica Bucuresti, Facultatea de Chimie Industriala , Bucuresti, Romania

Chimia si tehnologia compusilor macromoleculari

Octombrie 2002

International school “High Current Plasma Experiments and Diagnostics-stage II”

Institute of Plasma Physics and Laser Microfusion Training Center, Warsaw, Poland

Plasma physics – experiments and diagnostic

Octombrie 1993- Iunie 1998

Physicist/Bachelor of Science

“ Universitatea Politehnica Bucuresti, Facultatea de Chimie Industriala , Bucuresti, Romania

Chimia si tehnologia compusilor macromoleculari

COMPETENTE PERSONALE

Limba maternă

Romana

Alte limbi străine cunoscute

	INTELEGERE		VORBIRE		SCRIERE
	Ascultare	Citire	Participare la conversație	Discurs oral	
Engleza	B2	B2	B2	B2	B2
Franceza	A2	A2	A2	A2	A2

Niveluri: A1/A2: Utilizator elementar - B1/B2: Utilizator independent - C1/C2: Utilizator experimentat

Cadru european comun de referință pentru limbi străine

Competențe de comunicare

- Spirit de echipa dovedit in calitate de colaborator/director de proiect in cele peste 20 de proiecte de cercetare la care am participat de la angajarea mea in INFLPR;
- Foarte buna capacitate de comunicare, claritate/elocventa in expunerea ideilor, ceea ce au constituit avantaje in situatii in care acestea se impuneau – interactia cu membrii echipelor de cercetare din care am facut parte, prezentari orale la conferinte nationale si internationale, participari Workshop-uri si Simpozioane sau stagii de lucru sau pregatire, nationale si internationale;
- Foarte buna capacitate de analiza si sinteza, flexibilitate in gandire si actiune, perseverenta;
- Capacitate de decizie si de asumare a raspunderii pentru deciziile luate;
- Altruism in relatia cu colegii si partenerii;

Competențe organizaționale/manageriale

In calitate de director de proiect/responsabil de proiect am coordonat membrii echipelor de lucru astfel incat obiectivele proiectelor sa fie indeplinite. In acest sens am incercat pe cat posibil sa stabilesc sarcini precise tuturor membrilor echipelor de cercetare pe care le-am condus, proportional cu pregatirea si capacitatea de munca a fiecaruia, astfel incat sa nu supraincarc un membru al echipei cu mai multe sarcini decat putea executa, sa nu distribui aceeasi sarcina mai multor membri ai echipei daca acest lucru nu se impunea, sa nu existe membri ai echipei care sa execute sarcini intr-un timp mai lung decat era necesar, sa nu trasez sarcini contradictorii, sa diseminiez la o scara cat mai mare rezultatele proiectelor, astfel incat la final activitatile asumate prin contracte sa fie realizate in totalitate si la termenele stabilite. De asemenea, in vederea administrarii judicioase a bugetelor proiectelor m-am asigurat in permanenta de eligibilitatea cheltuielilor, de achizitionarea materialelor si echipamentelor conform cu planificarea dar si cu necesitatile bunei desfasurari a proiectelor precum si de remunerarea onesta si stimulativa a membrilor echipelor de cercetare;

Competențe dobândite la locul de muncă

Experiența de peste 20 ani în următoarele domenii:

- Utilizarea fasciculelor de electroni accelerați și microundelor în procesarea materialelor (polimerizări, grefări, reticulări, degradări), în vederea obținerii de materiale noi sau materiale cu proprietăți îmbunătățite precum și în caracterizarea fizico-chimică a acestora (determinare concentrație de monomer rezidual în polimer și coeficient de conversie a monomerului în polimer prin metode chimice pe baza de titrare, determinare vâscozitate intrinsecă, masă moleculară, coeficient de liniaritate, raza de rotație, grad de reticulare și fracție de gel, parametri de gonflare, eficiența și randament de grefare etc.);
- Utilizarea fasciculelor de electroni accelerați pentru sterilizare și decontaminare microbiană în vederea conservării sau tratării alimentelor depreciate;
- Elaborarea de metode și rețete specifice pentru epurarea apelor reziduale provenite din activități industriale generatoare de ape reziduale puternic încărcate cu poluanți organici/anorganici și în special a celor puternic încărcate cu metale grele care și în acest moment sunt extrem de dificil de soluționat;
- Analize de laborator specifice caracterizării apelor reziduale brute/tratate (pH, Materii organice în suspensie prin metodele CCO-Mn și CCO-Cr, consum biochimic de oxigen la 5 zile - CBO5, turbiditate, conținut de substanțe extractibile cu eteri de petrol, determinare metale grele prin metode spectrofotometrice, etc.);
- Dozimetria chimică a fasciculelor de electroni accelerați, fiind prima persoană din INFLPR care a adaptat dozimetria chimică a surselor de Co-60 la fascicule de electroni accelerați;
- Spectroscopie FTIR, programe de bază și speciale ale spectrofotometrelor UV-VIS;
- Utilizarea facilă a tuturor instrumentelor și aparatelor de bază cu care este dotat un laborator de analize fizico-chimice și microbiologice;

Competență digitală

AUTOEVALUARE				
Procesarea informației	Comunicare	Creare de conținut	Securitate	Rezolvarea de probleme
Utilizator independent	Utilizator independent	Utilizator independent	Utilizator de bază	Utilizator de bază

Niveluri: Utilizator elementar - Utilizator independent - Utilizator experimentat

[Competențele digitale - Grilă de auto-evaluare](#)

Scrieți denumirea certificatului.

Microsoft Office (Word, Excel, Power Point), Origin, Access, Corel Draw

Permis de conducere

Permis de conducere categoria B

INFORMATII SUPLIMENTARE

Publicatii	180 lucrări științifice publicate, din care 81 articole cotate ISI, 21 proceedings cotate ISI, 27 articole în reviste cotate în alte baze de date, 51 articole proceedings fără cotate ISI
Prezentari	75 articole prezentate la conferințe naționale și internaționale (publicate în book of abstracts)
Carti si capitole de carte	2 cărți și 5 capitole de carte
Brevete	6 brevete acordate
Proiecte	Director/Responsabil de proiecte de cercetare – 6 proiecte (castigate prin competiție); colaborator în 20 proiecte
Conferinte/seminarii	140 de prezentări orale și poster (conferințe, seminarii, simpozioane, workshops-uri)
Referent	Toxins, Materials and Polymers
Citatari	Citari: 970, conform Web of Science
Hirsh index	Index Hirsh – 20, conform Web of Science

ANEXE

Lista publicațiilor (articole, cărți, capitole de carte, brevete) și a proiectelor

03.11.2025

Numele și Semnatura: Dr. Ing. Elena MANAILA

LISTA DE LUCRARI
Dr. Ing, Manaila (Mateescu, Cirstea) Elena
Cercetator Stiintific gradul II(CS II)

- I. **Teza de doctorat cu titlul** “Sinteza de noi materiale prin reactii de polimerizare si reticulare radioinduse sau cu ajutorul microundelor”, sustinuta public in anul 2003 la Universitatea Politehnica Bucuresti, Facultatea de Chimie Industriala.
- II. **Carti si capitole de carte**
1. E. Manaila, DM Stelescu, G. Craciun, *Advanced Elastomers – Technology, Properties and Applications; Chapter 1: Aspects regarding radiation crosslinking of elastomers*; Ed. Intech, Croatia, ISBN 978-953-51-0739-2, **2012**
 2. D. Martin, G. Craciun, I. Margaritescu, M. Neagu, E. Manaila, D. Ighigeanu, L. Tudor, N. Iacob, Chapter 9: *Application of Electron Accelerators in Conjunction with Microwave Sources in Medical Studies* in “Practical Aspects and Applications of Electron Beam Irradiation” (eds. M.R. Nemțanu, M. Brașoveanu), ISBN 978-81-7895-541-4, Research Signpost/Transworld Research Network, India, **2011**;
 3. E. Manaila, D. Zuga Stelescu, D. Martin, G. Craciun, D. Ighigeanu, Chapter 8: *Electron Beam and Microwaves Processing of Rubber Mixtures with Polyfunctional Monomers* in “Practical Aspects and Applications of Electron Beam Irradiation” (eds. M.R. Nemțanu, M. Brașoveanu), ISBN 978-81-7895-541-4, Research Signpost/Transworld Research Network, India, **2011**;
 4. D. Ighigeanu, D. Martin, I. Calinescu, E. Manaila, G. Craciun, Chapter 7: *Gaseous Pollutants Treatment by Combined Electron Beams and Microwaves* in “Practical Aspects and Applications of Electron Beam Irradiation” (eds. M.R. Nemțanu, M. Brașoveanu), ISBN 978-81-7895-541-4, Research Signpost/Transworld Research Network, India, **2011**;
 5. G. Craciun, E. Manaila, D. Martin, D. Ighigeanu, Chapter 6: *Polyelectrolytes Obtained by Ionizing and Non-Ionizing Radiation* in “Practical Aspects and Applications of Electron Beam Irradiation” (eds. M.R. Nemțanu, M. Brașoveanu), ISBN 978-81-7895-541-4, Research Signpost/Transworld Research Network, India, **2011**;
 6. D.M. Stelescu, E. Manila, D. Martin, G. Craciun, D. Ighigeanu, L. Alexandrescu, “*Noi tehnologii de grefare si reticulare a amestecurilor de cauciuc prin iradiere cu electroni accelerate si microunde*”, Editura Performantica a Institutului National de Inventica Iasi, ISBN 978-973-730-810-8, **2011**;
 7. D. Ighigeanu, D. Martin, E. Manaila, G. Craciun, *Instalatii si electrotehnologii de iradiere combinata cu electroni accelerati si microunde pentru protectia mediului*; Ed, Performantica; ISBN 978-606-685-185-5, **2014**;
- III. **Articole/studii publicate in reviste de specialitate de circulatie internationala (indexate ISI) sau in reviste din tara recunoscute de catre CNCIS**

Publicatii in reviste indexate ISI

1. Manaila E., Calina I., Scarisoreanu A., Demeter M., Craciun G., Dumitru M., „Impact of Water Conductivity on Structure and Swelling Dynamics of E-Beam Cross-Linked Hydrogels”, *Gels*, 11(8), Article Number 611, DOI 10.3390/gels11080611 (**2025**);
2. Manaila E., Calina I., Dumitru M., Craciun G., „Poly(Acrylic Acid)-Sodium Alginate Superabsorbent Hydrogels Synthesized Using Electron-Beam Irradiation-Part III: An Evaluation of Their Degradation in Soil”, *Molecules*, 30(5), Article Number 1126, DOI 10.3390/molecules30051126 (**2025**);
3. Calina I., Demeter M., Craciun G., Scarisoreanu A., Manaila E., „The Influence of the Structural Architecture on the Swelling Kinetics and the Network Behavior of Sodium-Alginate-Based Hydrogels Cross-Linked with Ionizing Radiation”, *Gels*, 10(9), Article Number 588, DOI 10.3390/gels10090588 (**2024**);
4. Manaila E., Craciun G., „Poly(acrylic acid)-Sodium Alginate Superabsorbent Hydrogels Synthesized by Electron-Beam Irradiation-Part II: Swelling Kinetics and Absorption Behavior in Various Swelling Media”, *Gels*, 10(9), Article Number 609, DOI 10.3390/gels10090609 (**2024**);
5. Mitelut A.C., Nitu I., Manaila E., Popa E.E., Danaila-Guidea S., Geicu-Cristea M., Draghici M.C., Popescu P.A., Popa M.E., „RESEARCH ON THE BIODEGRADABILITY AND ECOTOXICITY OF SOME BIOHYDROGELS”, *SCIENTIFIC PAPERS SERIES A – AGRONOMY*, 67(1), 850-856 (**2024**);
6. Nitu I., Popa E.E., Manaila E., Danaila-Guidea S., Geicu-Cristea M., Popa M.E., Draghici M.C., Popescu P.A., Mitelut A.C., „EFFECT OF MONTMORILLONITE BASED HYDROGELS APPLICATION ON MORPHOLOGICAL CHARACTERISTICS OF LETTUCE SEEDLINGS (*LACTUCA SATIVA*)”, *SCIENTIFIC PAPERS SERIES B – HORTICULTURE*, 68(2), 527-533 (**2024**);
7. Craciun G., Calina I.C., Demeter M., Scarisoreanu A., Dumitru M., Manaila E., „Poly(Acrylic Acid)-Sodium Alginate Superabsorbent Hydrogels Synthesized by Electron Beam Irradiation Part I: Impact of Initiator Concentration and Irradiation Dose on Structure, Network Parameters and Swelling Properties”, *Materials*, 16(13), Article Number 4552, DOI 10.3390/ma16134552 (**2023**);

8. Manaila E., Demeter M., Calina I.C., Craciun G., NaAlg-g-AA Hydrogels: Candidates in Sustainable Agriculture Applications, GELS, 9(4), Article Number 316 (2023);
9. Manaila E., Craciun G., Lungu I.B., Grivei M.D., Stelescu M.D., Degradation by Electron Beam Irradiation of Some Elastomeric Composites Sulphur Vulcanized, MATERIALS, 16(6), Article Number 2152 (2023);
10. Manaila E., Craciun G., Calina I.C., Sodium Alginate-g-acrylamide/acrylic Acid Hydrogels Obtained by Electron Beam Irradiation for Soil Conditioning, INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES, 24(1), Article Number 104 (2023);
11. Nitu I., Danaila-Guidea S., Manaila E., Popa E.E., Geicu-Cristea M., Draghici M.C., Popescu P.A., Popa M.E., Mitelut A.C., „WATER STRESS MANAGEMENT USING HYDROGELS AND THEIR IMPACT ON PLANT BIOCHEMICAL COMPOSITION OF LACTUCA SATIVA”, SCIENTIFIC PAPERS SERIES B – HORTICULTURE, 67(2), 527-533 (2023);
12. Manaila E., Craciun G., Ighigeanu D., Lungu I.B., Grivei M.D., Stelescu M.D., Degradation by Electron Beam Irradiation of Some Composites Based on Natural Rubber Reinforced with Mineral and Organic Fillers, INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES, 23(13), Article Number 6925 (2022);
13. Manaila E., Craciun G., Ighigeanu D., Stelescu M.D., Water Absorption Kinetics in Composites Degraded by the Radiation Technique, MATERIALS, 14(16), Article Number 4659 (2021);
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V. Lista brevetelor acordate

1. Stelescu M.D., Manaila E., Craciun G., Alexandrescu L., Sonmez M., „*Materiale de etansare pe baza de cauciuc etilen-propilen-terpolimer si cauciuc butilic halogenat*”, **B.I. nr. 134225 din 29.04.2022**, publicat in BOPI – sectiunea INVENTII nr. 4/2022
2. Stelescu M.D., Manaila E., Craciun G., Ighigeanu D., Sonmez M., Georgescu M., „*Compozite elastomerice pentru garnituri rezistente la radiatii ionizante*”, **B.I. nr. 134218 din 29.04.2022**, publicat in BOPI – sectiunea INVENTII nr. 4/2022
3. Martin D., Neagu M., Matei C., Constantin C., Iacob N., Ighigeanu D., Manaila E., Craciun G. „*Instalatie si procedeu de iradiere cu microunde a unui material biologic simultan cu investigarea acestuia sub un microscop inversat cu modul de fluorescenta*” **B.I. nr. 126764 din 30.07.2015**, publicat in BOPI – sectiunea INVENTII nr. 7/2015;
4. Manaila, E., Stelescu, M.D., Martin D., Craciun G., Ighigeanu D.P., Matei C. „*Procedeu de reticulare a unui amestec pe baza de copolimer etilena-vinil acetat si monomeri polifunctionali*”, **B.I. nr. 125019 din 01.30.2012**, publicat in BOPI – sectiunea INVENTII nr. 1/2012;
5. Stelescu M.D., Manaila E., Procedeu de reticularea unui amestec pe baza de elastomer terpolimeric etilena-propilena-diena si monomeri polifunctionali; **B.I. nr. 125021 din 30.0.2012**, publicat in BOPI – sectiunea INVENTII nr. 4/2012
6. Ighigeanu D., Martin D., Calinescu I., Matei C., Manaila E., Craciun G. „*Procedeu si instalatie pentru cresterea performantei de conversie a poluantilor gazoși din gazele reziduale industriale*” **B.I. nr. 126841 din 21.04.2010**, publicat in BOPI – sectiunea INVENTII nr. 10/2017

VI. Lista proiectelor de cercetare-dezvoltare pe baza de contract/grant

Lista proiectelor de cercetare conduse in calitate de director/responsabil de proiect

1. PN-III-CERC-CO-PED-3-2021: Solutie biotehnologica pentru sistem sustenabil de livrare a apei si a biostimulatorilor la plante/HYDROBIOGEL), Contract nr: 663PED/2022; Cod proiect: PN-III-P2-2.1-PED2021-2151; Director de proiect Conf. univ. dr. Miteluț Amalia Carmen, Universitatea de Stiinte Agronomice si Medicina Veterinara din Bucuresti (USAMV), (June 2021-June 2023)
2. Proiect STAR ROSA – Nr. 140 / 20.07.2017 – Tehnologii de obtinere nanocompozite elastomerice pentru O-ringuri rezistente la temperaturi scazute si radiatii, cu potential de utilizare in domeniul spatial, aeronautica, securitate și alte domenii conexe”/acronim NANOELAST-Or; Director de proiect Dr. Ing. Stelescu Maria Daniela, Institutul National de Cercetare-Dezvoltare pentru Textile si Pielarie Bucuresti (July 2017- July 2019);
3. Proiect NUCLEU-LAPLAS PN 03 – 17 05 04 – Studiul efectului debitului dozei asupra randamentului radiochimic in procesele radicalice induse prin iradierea cu fascicule intense de electroni accelerati (2005-2008)
4. Proiect CEEC-CALIST 6112/2005– Materiale din cauciuc obtinute prin metode noi, complexe de reticulare si grefare a elastomerilor prin iradiere cu electroni accelerate si microunde in prezenta de monomeri polifunctionali”/acronim ELAST-EAMU (2005-2008)
5. Proiect PNCDI-CERES 4-145/2004– Studiul modificarilor induse de iradierea cu electroni accelerati si microunde asupra proteinelor sanguine/acronim: SMI-EM-PSU (2004-2006)
6. Proiect PNCDI MATNANTECH 131(303)/2003– Efectul iradierii cu electroni și microunde asupra proprietatilor unor biomateriale cu aplicatii în medicină/acronim: EI-EM-BM-M (2003-2005);

Lista proiectelor de cercetare in care am colaborat ca membru in echipa de cercetare

1. PN-II-PT-PCCA-2013-4-0319 Procese ecologice de extractie a compusilor valorosi din plante (July 2014-Sept. 2017)
2. PNCDI II-PARTNERSHIPS in Strategic Fields 71-055/2007: Monitoring system of X, gamma, neutron irradiation levels and alpha-beta contamination, with data tele-transmission, for radiologic risks regions (Oct. 2008-Sept. 2010);
3. PNCDI 2-61-9/2007 Stadializare si monitorizare imunologica in melanomul malign cutanat-metode inovative de diagnostic (Sept. 2007- Sept. 2010);
4. PN II- 21-025/2007: Cresterea performantei de conversie a gazelor acide din gazele de ardere industriale, prin tratament combinat cu electroni accelerati si microunde (Sept. 2007- Sept. 2010);
5. CEEEX-BIOTECH 34/2005: Elaboration of a biotechnology for specific prophylaxis of ruminant infectious pododermatitis, produced by *Fusobacterium necrophorum*, by using accelerated electrons and microwaves (Oct. 2005-Sept. 2008);
6. CEEEX-AMCSIT 55/2005: Indepartarea compusilor organici volatili din gaze prin tratament combinat: electroni accelerate si microunde (Oct. 2005-Sept. 2008);
7. CEEEX-VIASAN PC-D01-PT11-827/2005: Terapii inovative in tratarea unor forme de neoplasme prin actiunea sinergica a unor compusi bioactivi, electroni accelerati si microunde (Oct. 2005-Sept. 2008);
8. NUCLEU-PN.60.36.05.01: Sanitation of depreciated foods by modern methods with accelerated electrons and microwave (October 2005 – September 2008);
9. CEEEX-AMCSIT 54/2005 Dezvoltarea de metode de reticulare si valorificare a pulberilor nanometrice din emisiile de gaze industriale (Oct. 2005-Sept. 2008);
10. MATNANTECH 206(403)/2004 Obtinerea de biogeluri pentru separarea electroforetica a proteinelor serice cu aplicatii in diagnostic si terapie (Oct. 2004-Sept. 2006)
11. NUCLEU-LAPLAS 03 – 17 05 01: Research of some new effects of combined interaction of accelerated electrons and microwaves with matter, having applications in environment protection and medicine (Oct. 2003-Sept. 2005);
12. BIOTECH 3307/2003: Studiul efectelor iradierii combinate cu electroni accelerati si microunde asupra unor produse cu utilizare alimentara si terapeutica (Oct. 2003 –June 2005);
13. MATNANTECH C97(203)/2002 Polielectroliti biocompatibili pentru tratatrea apelor potabile, obtinuti prin iradiere cu electroni accelerati si microunde (Dec. 2002-July 2004)
14. MENER 067/2001 Cercetari si dezvoltare inginerie in vederea elaborarii unei tehnologii moderne pentru retinere simultana a oxizilor de sulf si azot prin utilizarea "plasmei reci (Dec. 2001-Oct. 2004)
15. MENER 066/2001 Cercetari si dezvoltari pentru realizarea unui model experimental necesar stabilirii tehnologiei de retinere simultana a oxizilor de sulf si azot utilizand microunde si electroni accelerati (Dec. 2001-June 2004);
16. RELANSIN 1048/2001 Tehnologie pentru retinerea poluantilor gazosi (NO_x, SO₂ si CO₂) din gazele industriale (Apr. 2001-Oct. 2003)
17. RELANSIN 586/2001 Instalatie demonstrativa pentru stabilirea de tehnologii de desulfurare si denoxare prin sisteme combinate, microunde si impulsuri scurte (Nov. 2000-Nov. 2002);
18. RELANSIN 588/2000 Dezvoltarea de tehnologii cu plasma indusa prin descarcare corona pulsata cu aplicatii in depoluarea mediului (Nov. 2000-Nov. 2002)
19. RELANSIN 593/2000 Tehnologie pentru retinere simultana a oxizilor de sulf si azot (SO₂, NO_x) din gazele de ardere utilizand microunde si electroni accelerati (Nov. 2000-Nov. 2002)
20. RELANSIN 450/1999 Realizarea tehnologiei de productie prin iradiere cu electroni accelerati a unor materiale polimerice destinate depoluarii apelor reziduale industriale (Dec. 1999 - Dec. 2002);

VII. H-index

conform Web of Science: H-index = 20

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