

PERSONAL INFORMATION

Radu Claudiu Fierascu



The National Institute for Research & Development in Chemistry and Petrochemistry- ICECHIM, Bucharest, Spl. Independentei 202, sect. 6, Romania

**Dr. Habil., Scientific Researcher 1,
Technical Manager
PhD coordinator**

WORK EXPERIENCE

May 2017 - present

Senior Scientific Researcher, 1st degree

The National Institute for Research & Development in Chemistry and Petrochemistry- ICECHIM, Bucharest, Spl. Independentei 202, sect. 6, Romania

- Research on X-ray and other analytical methods, synthesis and characterization of new (nano)materials with applications in biomedicine, application of natural extracts in biomedicine and cultural heritage conservation;
- Researches on chemical, pharmacological, biological activity and related aspects of medicinal and aromatic plants and natural products
- Development of scientific projects

July 2014 – May 2017

Senior Scientific Researcher, 2nd degree

The National Institute for Research & Development in Chemistry and Petrochemistry- ICECHIM, Bucharest, Spl. Independentei 202, sect. 6, Romania

- Research on X-ray and other analytical methods, synthesis and characterization of new (nano)materials with applications in biomedicine and cultural heritage preservation, application of natural extracts in biomedicine and cultural heritage conservation;
- Researches on chemical, pharmacological, biological activity and related aspects of medicinal and aromatic plants and natural products
- Development of scientific projects

November 2012 – July 2014

Senior Scientific Researcher, 3rd degree

The National Institute for Research & Development in Chemistry and Petrochemistry- ICECHIM, Bucharest, Spl. Independentei 202, sect. 6, Romania

- Research on X-ray and other analytical methods, synthesis and characterization of new (nano)materials with applications in biomedicine and cultural heritage preservation, application of natural extracts in biomedicine and cultural heritage conservation;
- Researches on chemical, pharmacological, biological activity and related aspects of medicinal and aromatic plants and natural products
- Development of scientific projects

January 2008 – November
2012

Senior Scientific Researcher

The National Institute for Research & Development in Chemistry and Petrochemistry- ICECHIM, Bucharest, Spl. Independentei 202, sect. 6, Romania

- Research on X-ray and other analytical methods, synthesis and characterization of new (nano)materials

- Researches on chemical, biological activity and related aspects of medicinal and aromatic plants and natural products
- Development of scientific projects

January 2006 – January 2008

Research assistant

The National Institute for Research & Development in Chemistry and Petrochemistry-ICECHIM, Bucharest, Spl. Independentei 202, sect. 6, Romania

- Research on X-ray and other analytical methods, synthesis and characterization of new (nano)materials

MANAGEMENT AND ORGANIZATIONAL EXPERIENCE

June 2020 – present ICECHIM Bucharest

Technical Manager

- Proposing general, specific and operational objectives of the institute, in the technical field, of marketing and of capitalizing the research results, on short, medium and long term
- Coordination of the activities of promoting the image of the institute and following the continuous realization of this activity
- Coordination of the activities for monitoring the research contracts in the institute and for carrying out the reports required by the management of the institute or by the hierarchically superior institutions
- Coordination of industrial property protection activities in the institute

2018 – June 2020 ICECHIM Bucharest

Leader of the Emerging Nanotechnology Group

- Development, coordination and implementation of national and international scientific projects
- Administrative coordination and organization of the research group
- Increasing scientific productivity
- Guiding young employees

2018 – 2019 Ministry of Research and Innovation

Coordinator of the RDI Specialists Group within the Technical Working Group

- Ensuring the coordination of the group of specialists appointed by research institutes for the development of the framework procedure for establishing the accounting value of the results of R&D activity and the technological audit framework procedure, from the point of view of aspects related to the evaluation of R&D activities

2023-present 2019 – 2023 2015 - 2023 ICECHIM Bucharest

President of the ICECHIM Scientific Council

Member of the Bureau of the ICECHIM Scientific Council

Member of the Scientific Council - ICECHIM

Elaboration of the Strategic Plan for Research-Development-Innovation of ICECHIM
internal approval commissions for research projects within ICECHIM

2010 – present ICECHIM Bucharest

Responsible for Radiological Protection

- Establishment and CNCAN attestation for the laboratories of X-ray Diffraction and X-ray Spectrometry
- Leading and supervising the application of analytical techniques under the control / supervision of CNCAN: X-ray diffraction, X-ray fluorescence, Electron microscopy
- Organizing and conducting the necessary examinations for the issuance of the level 1 permits

2007 – present
ICECHIM Bucharest

Member of the Occupational Health and Safety Committee - ICECHIM

- Fulfilling the attributions according to the Methodological Norms for applying the provisions of the Law on safety and health at work no. 319/2006, with subsequent amendments and completions

EDUCATION AND TRAINING

HABILITATION THESIS

2019 Politehnica University of Bucharest

Chemical Engineering

POSTGRADUATE PROGRAM, 2013

2013 Politehnica University of Bucharest

Environmental engineering

PhD

2007-2010 Valahia University of Targoviste, Materials Engineering, Mechatronics and Robotics Department

Materials Engineering

MASTER DEGREE

2007-2008 Valahia University of Targoviste, Materials Engineering, Mechatronics and Robotics Department

Advanced Materials

MASTER DEGREE

2005-2007 University of Bucharest, Chemistry Department

Chemistry and Radiochemistry

BACHELOR'S DEGREE

2001-2005 University of Bucharest, Chemistry Department

Chemistry and Radiochemistry

PERSONAL SKILLS

Mother tongue(s) Romanian
Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
French	C1	C1	B2	B1	B1

TRAINING COURSES

- SmartLab Application training, Rigaku Europe SE, Ettlingen, Germany, 2016
- Entrepreneurship Course, USAMV, Bucharest, 2015
- Expert in accessing European structural and cohesion funds" (occupational code: 241948), European Institute of Romania, 2011
- Radiological safety in practices with ionizing radiations sources, CPSDN-IFIN-HH, 2011
- "Project Management" - EuroBestTeam – 2010
- "Proficiency Testing Seminar"- LGC Standards – 2008
- "European and national harmonized legislation in the field of dangerous chemical substances and preparations" - ICECHIM – 2008
- "Training of auditors in the laboratory quality system" - FiaTest – 2008
- "Work hygiene and safety" - SC Principio Consulting Ltd – 2007
- "Radiological safety in the use/handling of nuclear generator installations" organized by Centre for staff training and specialization in nuclear activity-2006
- "Presentation of the technical requirements of ISO / IEC 17025:2005 - referential for accrediting testing laboratories and ensuring metrological traceability through reference materials" organized by RENAR – 2006
- "Quality assurance in testing laboratories according to ISO / IEC 17025:2005" - SC

SEMQ MANAGEMENT SRL – 2006

COMPUTER SKILLS

Good knowledge of Microsoft Office TM, Adobe Professional, Origin TM, Chems sketch TM, etc., Internet usage, search engines, social networks and other web resources, developed capacity of using Google products: Docs, Calendar, Analytics, App Engine, Scholar, Library etc.

Scientometric indicators

Good knowledge of specific software research equipment

✚ Hirsch Index (SCOPUS): 31

✚ H-index (Google Scholar): 38

(<https://scholar.google.com/citations?hl=ro&user=E2Yuk1EAAAAJ>)

✚ H-index (Web of Science): 28

(Web of Science ResearcherID: C-4280-2011 & Web of Science ResearcherID: EVJ-2945-2022)

Driving licence B

ADDITIONAL INFORMATION

Publications

Over 160 ISI papers (Over 200 papers in SCOPUS database) with a total of over 3000 citations and a h-index of 31;

Over 400 works presented in international scientific meetings (including oral presentations and invited lectures);

23 books and book chapters published by recognized publication houses;

Patetns and patent applications (selection)

40 granted patents and patent applications, among which:

- Cristina Liliana Soare, Irina Fierascu, Radu Claudiu Fierascu, Camelia Ungureanu, Mirela Florina Calinescu, Mihaela Dobrescu, Anca Nicoleta Sutan, Eco-friendly antifungal solution for controlling phytopathogenic strains affecting apple crops, Patent RO134424B1 / 2024

- Irina Fierascu, Radu Claudiu Fierascu, Toma Fistos, Cristina Liliana Soare, Camelia Ungureanu, Diana Vizitiu, Oana Alexandra Draghiceanu, Alina Paunescu, Antifungal composition for treatment of grapevine downy mildew, Patent RO134423B1 / 2024

- Alina Ortan, Simona Spinu, Radu Claudiu Fierascu, Anda Maria Baroi, Irina Fierascu, Toma Fistos, Eco-friendly extracts from burdock waste – production process and potential therapeutic use, Patent application A-00187 / 2022

- Camelia Ungureanu, Alexandra Constantinescu, Cristian Valeriu Parvu, Radu Claudiu Fierascu, Irina Fierascu, Anda-Maria Baroi, Roxana Ioana Brazdis (Matei), Toma Fistos, Irina Elena Chican, Electrochemically coupled surface plasmon resonance method for detection of Escherichia coli using electrode modified with phytosynthesized gold nanoparticles and preparation process, Patent application A-00549 / 2023

- Daniela Ionescu, Radu Claudiu Fierascu, Alina Ruxandra Eugenia Ortan, Stefan Buhaev, Irina Fierascu, Simona Marcu Spinu, Justinian Andrei Tomescu, Ana Maria Baroi, Narcisa Babeanu, Theodor Trausan, Roxana Ioana Brazdis (Matei), Toma Fistos, Dietary supplement based on eco-friendly natural components and preparation process, Patent application 138836A2 / 2023.

- Irina Fierascu, Radu Claudiu Fierăscu, Toma Fistoș, Cristina Liliana Soare, Camelia Ungureanu, Diana Vizitiu, Natural fungicidal composition for combating grapevine downy mildew and method for its preparation, Patent application A00073 / 2020

Projects

Project manager, partner responsible, key person or member in more than 25 national and international projects:

- ✚ 2023-2026-Development of new materials for an integrated approach to the protection of water resources: from detection to depollution – AQUAMAT (PN 23.06.01.01), Project manager, Ministry of Research, Innovation and Digitization, 30,718,973.32 lei (approx. 6.145 M euro), <https://icechim.ro/ro/institut/chemnewdeal/chemnewdeal-pc1/>
- ✚ 2021-2023-Supporting the competitiveness and excellence of research and innovation from INCDCP-ICECHIM in the field of bioeconomy and related fields, NeXT-Bexcel (15PFE/2021), Project manager, Ministry of Research, Innovation and Digitization, 5,732,000 lei (approx. 1.2 M euro), <https://icechim.ro/en/institute/next-bexcel-en/>
- ✚ 2022-2024-Innovative multifunctional composites for the protection of cultural heritage objects, InHeritage, PN-III-P2-2.1-PED-2021-0627 (591PED/2022), Project manager, Executive Unit for Financing Higher Education, Research, Development and Innovation, 598795 lei (approx. 120000 euro), https://icechim.ro/project/inheritage_en/
- ✚ 2022-2024-Through nanotechnology towards the next generation dental restorative materials, NANODENT, PN-III-P4-PCE-2021-0292 (92PCE/2022), Project manager, Executive Unit for Financing Higher Education, Research, Development and Innovation, 1.2 M lei (approx. 240000 euro), https://icechim.ro/project/nanodent_en/
- ✚ 2019-2023-Transdisciplinary approach for development of technological solutions for target compounds recovery from agro side-streams, E! 13365 – TARDIS (PN-III-P3-3.5-EUK-2019-0226), partner responsible, Eureka initiative/ Executive Unit for Financing Higher Education, Research, Development and Innovation, 493200 lei (approx. 100000 euro, partner's budget), <https://icechim.ro/project/tardis-en/>
- ✚ 2022-2024-Antimicrobial nanocomposites based on polyurethane foam for biomedical applications, synthesized by radiation assisted technology, PN-III-P2-2.1-PED-2021-0423 (612PED/2022), partner responsible, Executive Unit for Financing Higher Education, Research, Development and Innovation, 179639 lei (approx. 36000 euro, partner's budget), <https://icechim.ro/project/puma-en/>
- ✚ 2022-2024-High performance phytosynthesized nanostructures as biosensor platforms for detecting pathogenic microorganism from food matrices, PN-III-P2-2.1-PED-2021-0042 (652PED/2022), partner responsible, Executive Unit for Financing Higher Education, Research, Development and Innovation, 274447 lei (approx. 55000 euro, partner's budget), https://icechim.ro/project/nanobiopat_en/
- ✚ 2022-2024-Integrated technology for advanced removal of heavy metals and arsenic from complex matrices using adsorbent nanomaterials PN-III-P2-2.1-PTE-2021-0309 (81PTE/2022), Technology transfer project, partner responsible, Executive Unit for Financing Higher Education, Research, Development and Innovation, 273836 lei (approx. 55000 euro, partner's budget), https://icechim.ro/project/oxyads_en/
- ✚ 2020-2022-Treatment of water from sources contaminated with nitrates and chlorinated organic compounds using integrated catalytic reduction / oxidation and biofiltration processes, PN-III-P2-2.1-PTE-2019-0222 (26PTE/2020), Technology transfer project, partner responsible, Executive Unit for Financing Higher Education, Research, Development and Innovation, 109042 lei (approx. 22000 euro, partner's budget), <https://icechim.ro/project/denox-en/>
- ✚ 2020-2022-AI & Earth Observation based services for cultural heritage monitoring, PN-III-P2-2.1-PTE-2019-0579 (61PTE/2020), Technology transfer project, partner responsible, Executive Unit for Financing Higher Education, Research, Development and Innovation, 198100 lei (approx. 41000 euro, partner's budget), <https://icechim.ro/project/airfare-en/>
- ✚ 2018-2021-Complex multidisciplinary project for monitoring, conservation, protection and promotion of the Romanian cultural heritage, RO-CHER, PN-III-P1-1.2-PCCDI-2017-0413 (50PCCDI/2018), partner responsible at the complex project level, Executive Unit for Financing Higher Education, Research, Development and Innovation, 1149450 lei (approx. 240000 euro, partner's budget), <https://icechim.ro/project/en-ro-cher/>
- ✚ 2018-2021-Integrated management (conservation, restoration, protection) of cultural heritage objectives, RO-CHER – Component project 3, 50PCCDI/2018 – PC3, Component project responsible for the partner, Executive Unit for Financing Higher Education, Research, Development and Innovation, 245000 lei (approx. 51000 euro, partner's budget), <https://icechim.ro/project/en-ro-cher-pc3/>
- ✚ 2018-2021-Promoting cultural heritage using current digital reconstruction technologies RO-CHER – Component project 4, 50PCCDI/2018 – PC4, Component project responsible for

the partner, Executive Unit for Financing Higher Education, Research, Development and Innovation, 230000 lei (approx. 48000 euro, partner's budget), <https://icechim.ro/project/en-ro-cher-pc4/>

✚ 2018-2021-Development of plant extracts and innovative phytosynthesized nanostructured mixtures with phytotherapeutic applications in order to reduce biocenotic stress in horticultural crops, BIOHORTINOV – Component project 3, 6PCCDI/2018 – PC3, Component project manager, Executive Unit for Financing Higher Education, Research, Development and Innovation, 443000 lei (approx. 92000 euro, partner's budget), <https://icechim.ro/project/en-6pccdi-pc3/>

✚ 2019-2020-Innovative methods and techniques for evaluating conservation-restoration interventions and monitoring the conservation of traditional constructions in Romania (5PS/2019), partner responsible, Ministry of Research, Innovation and Digitization, 360000 lei (approx. 77000 euro, partner's budget), <https://icechim.ro/project/en-5ps/>

✚ 2017-2018-Techniques for storing and exploiting the results of advanced scientific research (SoVaReX) Capitalization of the national cultural heritage through nuclear technologies (10PS/2017), partner responsible, Ministry of Research, Innovation and Digitization, 360000 lei (approx. 78000 euro, partner's budget), <https://icechim.ro/project/en-sovarex/>

✚ 2016-2018-Depollution of water containing hardly biodegradable organic compounds (endocrine disruptors) by advanced oxidation processes using innovative catalysts, PN-III-P2-2.1-PTE-2016-0063 (8PTE/2016), partner responsible, Executive Unit for Financing Higher Education, Research, Development and Innovation, 419278 lei (approx. 94000 euro, partner's budget), <https://icechim.ro/project/en-oxydep/>

✚ 2017-2018 - Innovative apatitic materials with enhanced antimicrobial activity for building materials and cultural heritage conservation (HapEngCult) PN-III-P2-2.1-PED-2016-0198, (121 PED/2017), Project manager, Executive Unit for Financing Higher Education, Research, Development and Innovation, 700000 lei (approx. 155000 euro), <https://icechim.ro/project/en-hapengcult/>

✚ 2011-2013 - Avant-garde design of nanomaterials and nanosystems with practical applications in the scientific preservation of Romanian cultural heritage PN-II-RU-PD-2011-3-0023 (6PD/2011), postdoctoral research project, Project manager, Executive Unit for Financing Higher Education, Research, Development and Innovation, 155970 lei (approx. 36000 euro), <https://icechim.ro/project/en-6pd/>

Honors and awards

✚ Awarded papers by UEFISCDI in the program "Awarding the research results - Articles";

✚ Awards at International Innovation Expositions.

✚ Member (**Knight Order**) of the **Honorary Order "Pro Scientia et Innovatio" (Romanian Inventors Forum)**

Memberships of the Professional Societies and Governmental organizations:

✚ Romanian Chemical Society

✚ EuChemS

✚ Eurachem Romania

✚ Romanian Society for Biomaterials

✚ Romanian Association of Pteridology

✚ **Corresponding Member of The Academy of Romanian Scientists**

✚ **Member of the National Research Council, President Materials Science committee**

Reviewer and Member in Editorial Board

✚ Frontiers in Materials (Guest Editor), Coatings (Guest Editor), Caryologia, Journal of Functional Foods, Journal of Thermal Analysis and Calorimetry, Applied Surface Science, Arabian Journal of Chemistry, Journal of Hazardous Materials, Journal of Cluster Science, Heritage Science, Cellulose, Industrial Crops and Production.

✚ Monitoring/evaluation of research projects and activities, as evaluator in national and international competitions: National Science Centre, Poland (2025), "Leibniz Collaborative Excellence" (Germany, 2023), National Recovery and Resilience Plan (2023), Subprogram 1.4 Support, National Research - Development and Innovation Plan (2022), National Science Centre, OPUS-20, Poland (2021), CHILE FONDECYT Regular Competition 2021, Program 3 – European and international cooperation, Subprogramme 3.1 – Bilateral/multilateral, Mobility projects RO-FR Competition (2019), "State Program" Competition Republic of Moldova (2019), etc.