



**Curriculum vitae
Europass**



Personal Informations

First Name / Surname **NICOLOV , MIRELA FLORENTINA**
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E-mail nicolovmirela@gmail.com , mirelanicolov@umft.ro ,
Nationality Romanian
Date of birth 07.05.1967
Family Married, 1 child .

Occupational field Associate Professor – Pharmaceutical Physics Department

Victor Babes University of Medicine and Pharmacy Timisoara, Faculty of Pharmacy, Pharmaceutical Physics Department , Eftimie Murgu Sq., nr.2, Timisoara, 300041

Work experience

- 2018- present Associate Professor**
Pharmaceutical Physics - Course, laboratory, Pharmacy groups in French, romanian and english
University of Medicine and Pharmacy Victor Babes Timiosara, Faculty of Pharmacy, Pharmaceutical Physics Department , Eftimie Murgu Sq., nr.2, Timisoara, 300041.
Teaching and scientific research activity
- 2014-2018 Lecturer**
Pharmaceutical Physics - Course, laboratory, Pharmacy groups in French and romanian
University of Medicine and Pharmacy Victor Babes Timiosara, Faculty of Pharmacy, Pharmaceutical Physics , Eftimie Murgu Sq., nr.2, Timisoara, 300041.
Teaching and scientific research activity
- 2013-2014 Biophysics-laboratory-groups, General medicine in English**
University of Medicine and Pharmacy Victor Babes Timiosara, Faculty of Pharmacy, Pharmaceutical Physics , Eftimie Murgu Sq., nr.2, Timisoara, 300041.
Teaching activity
- 2000** Postdoctoral fellowship, Utrecht University - Netherlands, Faculty of Petrology, crystallography laboratory
- 2007** Postdoctoral fellowship, IKZ, Berlin, Germany
- 2008** „Maître de conference”,
Henri Poincare University Nancy, France

- 2003-2013 Associate Professor cf.OM 4084 / 04.06.2003** (confirmation for physics and biophysics received from the CNCS Physics Commission)
- Physics - Course, Seminar, laboratory at environmental protection, mechanical engineering, automation,
 - Physics and Biophysics - Course, Seminar, Laboratory - at Food Engineering Departments,
 - Electromagnetism - courses and seminars at the automated section
 - Databases courses - Course, seminar, laboratories at the economic engineering departments,
 - Fluid Mechanics - Course at the Environmental Protection Departments
 - Total Quality Management - Course, Seminar, Laboratory - at Economic Engineering Departments
 - Logistics - Course, Seminar, laboratory - at the economic engineering departments
 - Strategic Management - Course, Seminar, Laboratory - at Economic Engineering Departments
 - guiding the license works at the engineering departments
- Aurel Vlaicu University of Arad, B- dul Revolutiei nr.77, Arad, 310130.
Teaching and scientific research activity
- 1997-2003 Lecturer**
- Physics - Course, Seminar, laboratory
 - Physics and Biophysics - Course, Seminar, Laboratory
- Aurel Vlaicu University of Arad, B- dul Revolutiei nr.77, Arad, 310130.
Teaching and scientific research activity
- 1990-1997 preparatory, Assistant Professor**
- Physics - Seminar, laboratory
 - Physics and Biophysics - Seminar, laboratory
- Aurel Vlaicu University of Arad, B- dul Revolutiei nr.77, Arad, 310130.
Teaching and scientific research activity
- 1989-1990 professor of physics - Sebis school - Arad district (governmental repartition)**
- Physics lessons in general and high school
Sebis School - Arad County
Teaching activity

Results of didactic and research activity

- **17 books +2 chapter published in the book (international)**
- **91 works out of which ISI and ISI Proceeding papers**
- **70 Presence at national and international conferences:**
- **230 citations cf. Web of Science Core Collection**
- **Hirsch index : h =10**
- **12 participations in national and international programs and projects**
- **Expert evaluator in the area of MATERIAL SCIENCE , CONDENSED MATTER PHYSICS for CNCSIS, UEFISCDI since 2006**

Education

- 1981-1985** Industrial High School no.12 (former Miron Constantinescu High School), Arad, Mathematics - Physics Section, diploma: series A no.12646 / June 1985
- 1985- 1989** Faculty of Natural Sciences, Physics Department, University of Timisoara, Romania. Bachelor's degree in physics, physical specialization, diploma series G no. 2724 / July 1989.

- 25 februarie 1999** Institute for Atomic Physics , Bucharest, Romania
PhD in Physics, Doctor in Physics, specializing in solid state physics, a PhD R series nr.0005579 / 1999
- 2003-2005** Postgraduate course in "Technical Informatics" - Aurel Vlaicu University of Arad / specialist in technical informatics
- 2004-2006** Master "Management in Informatics" - Aurel Vlaicu University of Arad
- 2008-2010** " Master Financing and management in public administration"
Aurel Vlaicu University of Arad, Romania
- 2010-2013** PhD student in Economics
University of Oradea
- 2016-2018** Master: OTC's, FOOD SUPPLEMENTS, COSMETICS
Victor Babes University of Medicine and Pharmacy Timisoara

Personal skills and competences

NATIVE LANGUAGE	ROMANIAN					
FOREIGN LANGUAGES	ENGLISH – C1, FRENCH – C1					
	UNDERSTANDING		SPEAKING		WRITING	
ENGLISH	C1	PROFICIENT USER	C1	PROFICIENT USER	C1	PROFICIENT USER
FRENCH	C1	PROFICIENT USER	C1	PROFICIENT USER	C1	PROFICIENT USER

List of most important national and international projects:

- Contract 791 / 30.06.2014: CAPACITIES, Module III - bilateral cooperation: Integrated Actions Program, Brancusi, Romania - France: Obtaining micracrystals of pentacyclic triterpenes and study of their pharmacotoxicological changes on experimental models, (Bilateral Grant Ro-Fr , 2015-2016). Financing: 31,500 lei.
- Intas 99-00247- Poly mineral and mixed crystal formation: and experimental and theoretical study of the origin of natural and synthetic crystals: member of the team of the University of Utrecht-Netherlands, 2000- mobility project. Financing: \$ 6,000 / ECU 120,000
- TWIN FREQUENCY PREDICTION BY USING CRYSTAL GROWTH - International project - UHP Nancy - 2008- mobility project. Project manager. Financing 3700 Euro
- SIMULATIONS OF GADOLINIUM VANADIUM OXIDES -International project: IKZ BERLIN- 2007- mobility project. Project manager, Financing: 2825 Euro
- The influence of the external conditions on the structural perfection of the Crystals phase I - Realization of the furnace for heat treatment. Research contract 3034 - 3C / 1994, concluded with the Ministry of Education 1994-1995- project director. financing: 1,100,000 lei
- Study of the influence of external fields on heat and substance transfer processes in crystals with applications in crystal growth, West University of Timisoara, Faculty of Physics, research contract concluded with the Ministry of Education, 1997- phase II, 1997-1998 , team member, financing: 36,000,000 lei
- Analysis and synthesis of polygonal and galvanometric scanning systems, one and two-dimensional (CNCSIS IDEI 1896) - team member-2008-2010, Financing: 919000 RON,
- Implications for innovation, research and development role in the development of Romania's economic competitiveness, Oradea University, Faculty of Economic Sciences.- member in project, 2010 - 2013
Financing: 9000 RON

AWARDS:

1. PN-III-P1-1.1-PRECISI-2020-51072, Morphology of GdVO₄ crystal: first principle studies
2. PN-III-P1-1.1-PRECISI- 2019- 35343, Cocystal Formation of Betulinic Acid and Ascorbic Acid: Synthesis, Physico-Chemical Assessment, Antioxidant, and Antiproliferative Activity
3. DIPLOMA OF EXCELLENCE for scientific and technological research activity carried out within the bilateral cooperation Romania France "Brancusi - Hubert Curien" Program granted by the National Authority for Scientific Research and Innovation (ANCSI) and the French Embassy in Bucharest, Bucharest, November 21, 2016
4. ANCS Award 1391/2010, Neutral density filters with Risley prisms: analysis and design.

Books and Books chapters

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

1. **Nicolov Mirela**, Szabadai Zoltan, Physique Pharmaceutique Travaux Pratiques- deuxieme edition revise et complete, Editura Victor Babes, Timisoara , **2023.**, 243PAG, ISBN 978-606- 786-354-3.
2. **Mirela Nicolov** Zoltan Szabadai Watz Claudia PHARMACEUTICAL PHYSICS EXPERIMENTAL WORK, Editura Victor Babes, Timisoara , **2023.**, 243PAG, ISBN 978-606-786-328-4
3. **Mirela Nicolov**, Zoltan Szabadai, Watz Claudia PHARMACEUTICAL PHYSICS – PART I: Mechanics, Thermodynamics. Molecular physics, Physics of liquids, Phenomena of substance transport and heat transport, Biophysics of the cell, nucleus and biological membranes, synaptic transmission, Editura Victor Babes, Timisoara , **2023.**, 307PAG, ISBN 978-606-786-325-3 GENERAL ISBN 978-606-786-326-0 Vol 1,
4. **Mirela Nicolov** Zoltan Szabadai Watz Claudia PHARMACEUTICAL PHYSICS Part II: Electric,ity, Magnetism, Electromagnetism, Sound and ultrasound, Radioactivity, Lasers, Optics, Editura Victor Babes, Timisoara , **2023.**, 317PAG, ISBN 978-606-786-325-3 GENERAL ISBN 978-606-786-327-7 Vol 2.
5. **Nicolov Mirela**, Szabadai Zoltan., Physique Pharmaceutique, Part I: Mécanique, Thermodynamique. Physique Moléculaire, Physique des liquides, Phénomènes des transport de la substance et transport de la chaleur, Biophysique de la cellule, du noyau et des membranes biologiques, Transmission synaptique, Editura Victor Babes, Timisoara , **2016.300 PAG, ISBN: 978-606-786-001-6**
6. **Nicolov Mirela**, Szabadai Zoltan., *Physique Pharmaceutique, Part II: Electricité, Magnétisme, Electromagnétisme, Son et ultrason, Radioactivité, Lasers , Optique, Physique atomique et nucléaire*, Editura Victor Babes, Timisoara , **2018.275 pag, ISBN: 978-606-786-058-0**
7. Szabadai Zoltan., **Nicolov Mirela**, *Fizica Farmaceutica, Partea I: Mecanica, Termodinamica, Fizica Moleculara, Fizica Lichidelor, Fenomene de Transport*, Editura Victor Babes, Timisoara , **2016.270 PAG, ISBN: 978-606-786-003-0**
8. Szabadai Zoltan., **Nicolov Mirela**, *Fizica Farmaceutica, Partea II: Electricitate, Magnetism, Optică, Fizică atomică*, Editura Victor Babes, Timisoara , **2018.386 pag, ISBN: 978-606-786-059-7**
9. **Nicolov Mirela**, Szabadai Zoltan, *Physique Pharmaceutique Travaux Pratiques*, Editura Victor Babes, Timisoara , **2016.**, 229 PAG, ISBN: **978-606-8456-95-9**
10. Corina Danciu, Diana Antal, Stefana Avram, Valentina Buda, Ioana Zinuca Pavel, Daliana Minda, Florina Ardelean, **Mirela Nicolov**, and Cristina Dehelean. Essential Mineral Elements: Macronutrients and Micronutrients from Herbs in Human Health-Phytochemicals: Plant Sources and Potential Health Benefits,Ed. Iman Ryan, Series: Plant Science Research and Practices, ISBN: 978-1-53615-478-8, Nova Science Publishers, Inc. , New York, USA, **2019**

PAPERS

2021

1. Pop, D, Buzatu, R, Moaca, EA, Watz, CG, Pinzaru, SC, Tudoran, LB, Nekvapil, F, Avram, S, Dehelean, CA, Cretu, MO, Nicolov M., Szuhaneck, C, Jivanescu, A, Development and Characterization of Fe₃O₄@Carbon Nanoparticles and Their Biological Screening Related to Oral Administration, *MATERIALS*, Volume 14, Issue 13, Article Number 3556, DOI 10.3390/ma14133556, (IF: 3.63/Q2)
2. Nicolov, M.; Cocora, M.; Buda, V.; Danciu, C.; Duse, A.O.; Watz, C.; Borcan, F. Hydrosoluble and Liposoluble Vitamins: New Perspectives through ADMET Analysis. *Medicina* 2021, 57, 1204. <https://doi.org/10.3390/medicina57111204> (IF: 2.43)

2020

3. Emiliana-Laura Andreici Eftimie, Nicolae Avram, Christian Jelsch, **Mirela Nicolov**, Morphology of the GdVO₄ crystal: first-principles studies, *Acta Crystallographica Section B, Structural Science, Crystal Engineering and Materials, International Union of Crystallography*, 2020, 76 (5), 749-756, doi.org/10.1107/S2052520620009002, IF:2.048
4. Camelia A Szuhaneck, Claudia G Watz, Ștefana Avram, Elena-Alina Moacă, Ciprian V Mihali, Adelina Popa, Andrada A Campan, **Mirela Nicolov**, Cristina A Dehelean, Comparative Toxicological In Vitro and In Ovo Screening of Different Orthodontic Implants Currently Used in Dentistry, *Materials* 2020, 13, 5690; doi:10.3390/ma13245690, IF:3.057.
5. Alin Faur, Claudia Watz, Elena-Alina Moacă, Ștefana Avram, Florin Borcan, Iulia Pinzaru, Andrada Iftode, **Mirela Nicolov**, Ramona Amina Popovici, Marius Raica, Camelia A Szuhaneck, Cristina Dehelean, Correlations on Phenolic Screening Related to In Vitro and In Ovo Assessment of *Ocimum basilicum* L. Hydro-Alcoholic Extracts Used as Skin Active Ingredient, *Molecules* 2020, 25, 5442; doi:10.3390/molecules25225442, IF:3.267
6. Adelina Popa, Cristina Dehelean, Horia Calniceanu, Claudia Watz, Silviu Brad, Cosmin Sinescu, Olivia A Marcu, Casiana Simina Popa, Ștefana Avram, **Mirela Nicolov**, Camelia A Szuhaneck, A Custom-Made Orthodontic Mini-Implant—Effect of Insertion Angle and Cortical Bone Thickness on Stress Distribution with a Complex In Vitro and In Vivo Biosafety Profile, *Materials* 2020, 13, 4789; doi:10.3390/ma13214789, IF: 3.057

2019

7. **Mirela Nicolov**, Roxana M. Ghiulai, Mirela Voicu, Marius Mioc, Adina Octavia Duse, Roxana Roman, Rita Ambrus, Istvan Zupko, Elena Alina Moaca, Dorina E. Coricovac, Claudia Farcas¹, Roxana Marcela Racoviceanu, Corina Danciu, Cristina-Adriana Dehelean And Codruta Soica, Cocystal Formation Of Betulinic Acid And Ascorbic Acid: Synthesis, Physico-Chemical Assessment, Antioxidant, And Antiproliferative Activity, *FRONTIERS IN CHEMISTRY, MEDICINAL AND PHARMACEUTICAL CHEMISTRY*, 7:92.2019, Doi: 10.3389/Fchem.2019.00092, IF:4.115.
8. **Mirela Nicolov**, Doina Georgescu, Emiliana Laura Andreici Eftimie, Simona Cinta Pinzaru, Roxana Roman, Ionut Ledeti, Rita Ambrus, Adelina Cheveresan, Nicolae M. Avram, DFT Study of Structure, IR and RAMAN Spectra for Betulinic Acid Solvatomorphs, *REV.CHIM.(Bucharest)* ♦70♦No. 1 ♦2019, p.107-111., IF:1.755

2018

9. **Mirela Nicolov**, Alina Heghes, Izabella Petre, Ovidiu Alexandru Mederle, Theoretical and Experimental Analysis of SiO₂ - a Proof of Hartman Perdok Method, *REV.CHIM.(Bucharest)* ♦69♦No. 5 ♦2018, P. 948- 951, IF:1.605

2017

10. Alina Heghes, **Mirela Nicolov**, Adina Octavia Duse, Dan Dragos, Zoltan Szabadai, Sorin Bolintineanu, Daniela Marti, Hartman Perdok Method Applied to A₂BSi₂O₇ and AB₂O₆ Types of Microcrystals and the Concept of Fractional Charges, *REV.CHIM.(Bucharest)*, 68, No. 4, 2017, P. 742-744. IF:1.412
11. Emiliana-Laura Andreici Eftimie, Roxana Roman, **Mirela Nicolov**, Ionut Ledeti, Zoltan Szabadai, and Nicolae M. Avram, DFT calculation of vibrational frequencies for betulinic acid methanol monosolvate *TIM15-16 Physics Conference*, AIP Conf. Proc. 1796, 030012-1–030012-5; doi: 10.1063/1.4972377, Published by AIP Publishing, 978-0-7354-1462-4/\$30.00, 030012-1-5, Citation: **1796**, 030012 (2017); doi: **10.1063/1.4972377**, View online: <http://dx.doi.org/10.1063/1.4972377>.
12. Lavinia Moleriu, Adina Octavia Duse, Florin Borcan, Codruta Soica, Ludovic Kurunczi, **Mirela Nicolov**, Marius Mioc, Formulation and Characterization of Antibacterial Hydrogels Based on Polyurethane Microstructures and 1, 2, 4-Triazole Derivatives, *MATERIALE PLASTICE*, 54, No. 2, 2017, P. 348-352. IF: 1.248
13. Adina Octavia Duse, Delia Berceanu Vaduva, **Mirela Nicolov**, Cristina Trandafirescu, Marcel Berceanu Vaduva, Mariana Cevei, Alina Heghes, Biostatistical Analysis and Possible Forecasting of Relationship Between Uric Acid and Specific Laboratory Tests in Cases of Gouty Arthritis, *REV.CHIM.(Bucharest)*, 68, No. 6, 2017, 1234- 1241., IF:1.412
14. Dan Navolan, **Mirela Nicolov**, Simona Vladareanu, Ioana Ciohat, Marius Craina, Miroslav Tomovic, Dragos Nemescu, Alina Onofriescu, Mihaela Craciunescu, Florin Birsasteanu, Is there a need for own median calculation in the second trimester biochemical markers screening, *REV.CHIM.(Bucharest)*, 68, No. 5, 2017, P.1070-1072., IF:1.412

2016

15. **Mirela Nicolov**, Marius Mioc, Dan Dragos, Hartman Perdok Method for Analysis of Growth form of Crystals, REV.CHIM.(Bucharest),67,No. 5,2016, P.1014-1018, IF:1.232
16. **Mirela Nicolov**, Adina Octavia Duse , Doina Georgescu, Florin Borcan, Puiu Velea, Preliminary Studies on Betulinic Acid Crystals with Organic Solvents, REV.CHIM.(Bucharest),67,No.7,2016, P. 1411-1414, IF: 1.232
17. Cristina Trandafirescu, Florin Borcan, Cristina Dehelean, Zoltan Szabadai, **Mirela Nicolov**, Codruta Soica, Study of the Interaction of Albendazole with Benzoic Acid. I, REV.CHIM.(Bucharest),67,No. 11 ,2016, P.2370-2374., IF:1.232
18. VF Duma, **MF Nicolov**, C Mnerie, L Szantho, Optical modulator with rotation movement, Romanian Patent RO, 126505/2016.

2015

19. Mihaela Corlade-Andrei, Carmen Diana Cimpoesu, Dan Dragos, **Mirela Nicolov**, Elena Butnaru, Analysis Using Gas Chromatography - Mass Spectrometry (GC-MS) of Some Ethnobotanical Products, REV. CHIM. (Bucharest) , 66 , No. 4 , 2015, P.457-459, IF:0.956
20. **Mirela Nicolov**, Zoltan Szabadai, Cristina Trandafirescu, Dan Dragos, Urea Simulation as a Biofunctional Material, REV. CHIM. (Bucharest) ,66 ,No. 5, 2015, P. 681-684 , IF:0.956.

Timisoara, 04.03.2024

Conf.Dr. MIRELA FLORENTINA NICOLOV