

Personal information

First name(s) / Surname(s) **Anton FICAI**

Address(es) Work: 1-7 Gh Polizu St, District
1, 011061 Bucharest, Romania

Telephone(s) +4 021 402 3852

Fax(es) +4 021 402 3815

E-mail anton.ficai@upb.ro

Nationality Romanian



Current employment / Occupational field Professor, Ph. D. Habil. Eng. UNSTPB; Faculty of Chemical Engineering and Biotechnologies

Full member of Academy of Romanian Scientists (Secretary of the Chemical Science Division)

Member of the National Commission for the Evaluation of Research Organizations ([link](#) followed by click on Evaluation committee - 28 members)

Register of experts of the National Commission for Attestation of University Titles, Diplomas and Certificates (OM 7235/10.10.2024)

Work experience

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| Dates | 2011 – onward |
| Occupation or position held | Assistant professor - Prof. Habil. Dr. Eng. (3266/02.03.2016) |
| Main activities and responsibilities | Teaching activities (classes and/or applications): Composite Materials for Medicine, Chemistry, Drug Delivery Systems, Chemistry and Characterisation of Materials, Nanobiomaterials for Tissue Engineering; Research activities |
| Name and address of employer | POLITEHNICA University of Bucharest, Faculty of Chemical Engineering and Biotechnologies, Department of Oxide Materials and Nanomaterials |
| Type of business or sector | Education + Research |
| Dates | 2006 – 2011 |
| Occupation or position held | Assistant professor |
| Main activities and responsibilities | Teaching & research activities |
| Name and address of employer | POLITEHNICA University of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Analytical Chemistry and Instrumental Analysis |
| Type of business or sector | Education |

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| Dates | 14-20 July 2014 |
| Occupation or position held | Invited professor |
| Main activities and responsibilities | Teaching activities in the field of composite materials and biomaterials |
| Name and address of employer | University Beira Interior |
| Type of business or sector | Education |

Education and training

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| Dates | May 2010 – March 2013 |
| Title of qualification awarded | Postdoctoral fellow |
| Principal subjects/ occupational skills covered | Nanomaterials - Biomaterials |
| Name and type of organisation providing education and training | University POLITEHNICA of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Oxide Materials and Nanomaterials |
| Level in national or international classification | Postdoctoral studies |

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| Dates | 2006-2009 |
| Title of qualification awarded | PhD. Eng. (OMEC 3492/23.03.2010; 228/13.04.2010) |
| Principal subjects/ occupational skills covered | Chemical Engineering |
| Name and type of organisation providing education and training | POLITEHNICA University of Bucharest, Faculty of Applied Chemistry and Materials Science |
| Level in national or international classification | PhD studies |

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|--|---|
| Dates | 2005-2007 |
| Title of qualification awarded | Master of Science degree |
| Principal subjects/ occupational skills covered | Organic Chemistry; |
| Name and type of organisation providing education and training | University POLITEHNICA of Bucharest, Department of Bioengineering and Biotechnology |
| Level in national or international classification | PhD studies |

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|--|--|
| Dates | 2000-2005 |
| Title of qualification awarded | Chemical Engineer (Valedictorian diploma) |
| Principal subjects/ occupational skills covered | Organic Chemistry |
| Name and type of organisation providing education and training | University POLITEHNICA of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Organic Chemistry |
| Level in national or international classification | Academic degree |

Personal skills and competences

Mother tongue(s) **Romanian**

Other language(s)

| Self-assessment | Understanding | | | | Speaking | | | | Writing | |
|---------------------------|---------------|------------------|---------|------------------|--------------------|------------------|-------------------|------------------|---------|------------------|
| <i>European level (*)</i> | Listening | | Reading | | Spoken interaction | | Spoken production | | | |
| ENGLISH | B2 | Independent User | B2 | Independent User | B2 | Independent User | B2 | Independent User | B1 | Independent User |
| ITALIAN | A1 | Basic user | A2 | Basic user | A1 | Basic user | A2 | Basic user | A1 | Basic user |
| FRENCH | A1 | Basic user | A2 | Basic user | A1 | Basic user | A2 | Basic user | A1 | Basic user |

(*) Common European Framework of Reference for Languages

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| Social skills and competences | Team work: I was employed as researcher or as manager in over 50 national or international research projects (14 as project manager/responsible) |
| Organisational skills and competences | During the faculty's years I was involved in most of the student activities (chief of the student hostel) acquiring good organizational skills I was involved in the organizing committee of the "CD Nenițescu Days" |
| Technical skills and competences | Technical skills were obtained and continuous improved due to the various attended training courses: chromatography, IR, AAS and ICP-MS spectroscopy |
| Computer skills and competences | Independent USER of WINDOWS XP and Windows 7, MS Office, Macromedia Firefox, Fireworks, Origin etc.. |

Additional information

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| Fields with specific interests: | Bone, Bone grafts, Biomaterials, Nanomaterials and Technologies, Chemistry; Prosthetic Tubular Devices, Drug Delivery System; Materials for Environmental Applications, etc. |
| Publications | <ul style="list-style-type: none"> Over 300 per-reviewed published works (over 230 is indexed in ISI Web of Science); cumulative impact factor >560; Hirsh index 33 (ISI); Times of citations > 3500 (self-citations excluded); 18 Books and Chapters of books; 9 patent issued by OSIM and 23 pending Patent Applications |
| Editorial Boards | Editorial board: |

- **Coatings – MDPI (2019-onward)** - ISI journal – **Section Editor in Chief**
- **Revista Romana de Materiale - Romanian Journal of Materials** (2017-onwards) – ISI Indexed
- **Jacobs Journal of Materials Science (Remedy Publications)** (2016-onwards)
- **Resource-Efficient Technologies** (2016-onward)
- **Dovepress** (2015 – onwards) – **consulting editor**
- **Bentham Science – Bentham Ambassador**
- **Materials Science and Engineering Journal** (2017-onwards)
- **Journal of Nanomaterials, Nanotechnology and Nanomedicine**, (2015-2024)
- **Biointerface Research in Applied Chemistry** (2011-present) – ISI indexed
- **Scientific Bulletin of University „POLITEHNICA” of Bucharest – Serie B: Chemistry and Materials Sciences** (2010-present) – ISI indexed.

Research Projects

55 research projects with national and international financing (23 of them being project manager/responsible)

1. **COST Action CA24126** – Fostering Nature-Centred BioDESIGN to Explore regenerative futures: DESIGNAE; Management Council Member 2025-2029;
2. **COST Action CA24115** - Connecting an INternational Network of Academic Manufacturers of ONcoimmunotherapies - CINNAMON; Management Council Member 2025-2029;
3. PN-IV-P7-7.1-PTE-2024-0522; Development of ecological solutions based on silanes and nanoparticles for the reinforcement of buildings and monuments; Role: researcher, Period of implementation: 2025-2027
4. **RO-MD2023**; Nanostructured bone grafts with predetermined properties / Grefe osoase nanostructurate cu proprietăți prestabilite; Project Manager; total Budget 500 000Eur; Period of implementation: 2024-2026
5. **M Era Net**; Innovative stent coating with polyphenol-rapamycin complex with improved drug-eluting properties to target in-stent-restenosis; Project Manager from Romanian Side / responsible; Budget share of UNSTPB 182 551Eur - total Budget 1.149.922Eur;
6. **Flag Era**; Smart nerve Grafts based on Graphene-related composite materials with electric-triggering capability for central and peripheral nervous system regeneration Smart2Graph; Role: Project Coordinator Budget: 971 732Eur;
7. **PN-III-P1-1.1-TE-2021-1242**; Glass functionalisation and decoration with nanoparticles: a challenging way to induce new applications; Role: Project manager, Period of implementation: 2022-2024
8. PN-III-P2-2.1-PED-2021-3177; Superior recovery of recycled polyethylene by compounding with chemically modified starch and nanopowders in order to obtain materials with antimicrobial properties for REPRAP 3D printers; Role: researcher, Period of implementation: 2022-2024
9. PN-III-P2-2.1-PED-2021-0627; Innovative multifunctional composites for the protection of cultural heritage objects; Role: Researcher, Period of implementation: 2022-2024
10. PN-III-P2-2.1-PED-2021-3414; Innovative antimicrobial food packages for advanced food security; Role: Researcher, Period of implementation: 2022-2024
11. PN-III-P2-2.1-PED-2021-1788; Innovative nanostructured nutraceuticals with synergistic bioactivities for hepato-digestive protection; Role: Researcher, Period of implementation: 2022-2024
12. Action CA20126, “Network for research, innovation and product development on porous semiconductors and oxides” (NANOPORE); Role: **Responsible Romanian side**; Period of implementation: 2021-2025
13. PN-III-P1-1.1-PD-2019-1156; Novel 2D nanocomposite membranes based on chitosan for water purification/ Noi membrane nanocompozite 2D pe bază de chitosan pentru purificarea apei; Postdoctorand Angela SPOIALA; Period of implementation: 2020-2022 (**Rol – Mentor**).
14. PN-III-P1-1.1-PD-2019-1185- Nanomateriale bioactive pentru terapie combinată: modularea infecțiilor microbiene și prevenția recurenței tumorale; Postdoctorand Valentina Grumezescu (**Rol – Mentor**).
15. PN-III-P1-1.1-TE-2019-1450/TE 103/Platformă microfluidică multifuncțională de tipul lab-on-a-chip pentru fabricarea nanoparticulelor/Multifunctional lab-on-a-chip

- microfluidic platform for the fabrication of nanoparticles; Rol: Cercetator; Period of implementation: 23.10.2020-22.10.2022
16. PN III (2013-2020) / PED 2019; Valorificarea nanoparticulelor magnetice in dezvoltarea unui micro-dispozitiv magnetic / contract No. 522/23.10.2020; Role: Researcher; Period of implementation: 23.10.2020-22.10.2022
 17. PN III (2013-2020) / PED 2019; Evaluarea potentialului de exploatare a materialelor poroase in tratarea disbiozelor microbiotei / Evaluation of the exploitation potential Potential of Porous Materials in the tREatment of Microbiota-related dISeasEs – contract No. 524/23.10.2020; Role: Researcher; Period of implementation: 23.10.2020-22.10.2022
 18. PN-III-P2-2.1-PED-2019-1375; Elaborarea de noi antiseptice pe baza de oxid de zinc pentru tratarea clinica a plagilor; Role: Researcher; Period of implementation: 2020-2022
 19. **Action CA17118**, “Identifying Biomarkers Through Translational Research for Prevention and Stratification of Colorectal Cancer” (TRANSCOLONCAN); Role: Researcher/ **Responsible of UPB**; Period of implementation: 2018-2022
 20. **Action CA18132**; Functional Glyconanomaterials for the Development of Diagnostics and Targeted Therapeutic Probes; Role: Researcher/ **Responsible of UPB**; Period of implementation: 2018-2022
 21. PN-III-P4-ID-PCCF-2016-0114; Antibiotic Resistance in Wastewater: Transmission Risks for Employees and Residents around Waste Water Treatment Plants / Rezistența la antibiotice în apele uzate: Riscuri de transmitere la angajați și la rezidenții din proximitatea stațiilor de tratare a apelor reziduale; Role: Researcher/ **Responsible of UPB**; Period of implementation: 2018-2022
 22. PN-III-P1-1.2-PCCDI-2017-0697; Intelligent therapies for non-communicable diseases based on controlled release of pharmacological compounds from encapsulated engineered cells and targeted bionanoparticles / Terapii inteligente pentru boli non-comunicabile bazate pe eliberarea controlata de compusi farmacologici din celule incapsulate dupa manipulare genetica sau bionanoparticule vectorizate; Period of implementation: 2018-2020
 23. PN-III-P1-1.2-PCCDI-2017-0629; Innovative Bionanomaterials for Treatment and Diagnosis / Bionanomateriale Inovative pentru Tratament si Diagnostic; Period of implementation: 2018-2020
 24. PN-III-P1-1.2-PCCDI-2017-0749; Bioactive nanostructures for innovative therapeutical strategies / Nanostructuri bioactive pentru strategii terapeutice inovatoare; Period of implementation: 2018-2020;
 25. PN-III-P1-1.2-PCCDI-2017-0689; Lib2Life- Revitalizarea bibliotecilor și a patrimoniului cultural prin tehnologii avansate; Period of implementation: 2018-2021;
 26. Grants JINR-RO 2018; Complementary characterization and SANS modelling of magnetic multilayered suprastructures for targeted cancer therapy; Topic #04-4-1121 2015/2020; **Responsible UPB**; Period of implementation: 2018;
 27. Project JINR-RO 2018; Development and characterisation of magnetic nanostructures for targeted cancer therapy; **Responsible UPB**; Period of implementation: 2018;
 28. Project JINR-RO 2018; Mesoporous silica doped with magnetite nanoparticles for controlled release rate of biologically active substances; Role: member of team/researcher; Period of implementation: 2018;
 29. PN-III-P2-2. 1-PED-2016-0427; Realizare demonstrator in tehnologia planara de tranzistor cu tunelare a izolatorilor ultrasubțiri - ca promotor al unei serii de nano-dispozitive și evidențierea utilitatii in industrie; Role: Researcher; Period of implementation: 2017-2018;
 30. PN-III-P2-2. 1-PED-2016-0952 “Biomimetic 3D-printed porous scaffolds for bone tissue engineering / Structuri poroase biomimetice obținute prin printare 3D pentru ingineria țesutului osos” Role: Researcher; Period of implementation: 2017-2018;
 31. **63/10. 04. 2017/IUCN DUBNA**; Nanostructured magnetic colloids for targeted cancer therapy; Role: project manager; Period of implementation: 2017;
 32. PN-III-P2-2. 1-PTE-2016-0146; Novel nanostructured polymeric composite designed for pallet lining, connecting plate and other components for the railway industry; Role: Researcher/ **Responsible of UPB**; Period of implementation: 2016-2018;
 33. PN-III-P2-2. 1-PTE-2016-0156; Harnessing recycled thermoplastic polymers by reinforcement with functionalized natural fibers to obtain new added-value products; Role: Researcher; Period of implementation: 2016-2018;
 34. PN-III-P2-2. 1-PTE-2016-0177; Composite hydrogels based on inorganic nanoparticles and collagen with prolonged antimicrobial activity designed for the

- infection prevention of wound; Role: Researcher/ **Responsible of UPB**; Period of implementation: 2016-2018;
35. **POC-D; Prototip pentru validare nanotehnologie inovatoare și linie de producție (P_39_240), manager de proiect;**
 36. Era Net Rus Plus project „Titanium Oxynitride Coatings for the Improvement of Biocompatibility and Long-Term Functionality of Cardiovascular Stents: Development of Novel Deposition Technology- TIOXTECH-BIO”; Role: Researcher/ **Responsible of UPB**; Period of implementation: 2016-2018;
 37. MANUNET ERA-NET Project; "Multiphase elasto-plastic architectures dynamically vulcanized and reinforced with nanoparticles for specific products used in food and pharmaceutical industries - ARHNANOTPV" Role: Researcher/ **Responsible of UPB**; Period of implementation: 2015-2016;
 38. „Installations of National Interest/Instalații de Interes National: Crearea Centrului National de Micro si Nanomateriale / Creation of the National Centre of Micro- and Nanomaterials” Role: project manager; Period of implementation: 2014-2019;
 39. PNCDI II – Partnership: Ligaments reconstruction by using advanced materials based on synthetic and natural polymers/Reconstrucția ligamentelor utilizand materiale structurate avansate pe baza de polimeri sintetici si naturali; Ctr. Nr. PN-II-PT-PCCA-2013-4-0891; Role: Researcher; Period of implementation: 2014-2017;
 40. PNCDI II – Partnership: Inovative dental products with multiple applications/ Produse inovative de uz dentar cu aplicatii multiple – LavEndo; Ctr. Nr. PN-II-PT-PCCA-2013-4-0891; Role Cercetător; Period of implementation: 2014-2017;
 41. POSSCE-A2-O2. 2. 1. -2013-1 - Crearea Centrului Național de Cercetări Științifice pentru Siguranța Alimentară; Nr 1970, Cod SMIS – CSNR 48652; Role: **Scientific Responsible**; Period of implementation: 2014-2016;
 42. MPNS COST Action MP1301: New Generation Biomimetic and Customized Implants for Bone Engineering; Role: member of the Romania team; 2013-2017
 43. TD COST Action TD1305: Improved Protection of Medical Devices Against Infection (IPROMEDAI); Role: member of the Romania team; 2013-2017
 44. ADER 8. 1. 4 - Integrated tracking and control systems of animal and non-animal food to identify potential carcinogenic risk factors in relation to environmental, farm, processing, transport, consumption / Sisteme integrate de trasabilitate și control ale unor alimente de origine animală și nonanimală pentru identificarea unor factori de risc potențial cancerigeni în relația mediu, fermă, procesare, transport, consum; Ctr. Nr. 67/ADER 8. 1. 4; Role Researcher; Period of implementation: 2013-2014;
 45. **PNCDI II – Partnership:** Novel nanostructured prosthetic tubular devices with antibacterial and antibiofilm properties induced by physico-chemical and morphological changes – AntiBioTube; Ctr. Nr. 43_094; Role: Project manager; Period of implementation: 2012-2016;
 46. PNCDI II – Partnership: Hybrid composite materials with thermoplastic matrices doped with fibres and disperse nano fillings for materials with special purposes – HybridMat; Ctr. Nr. 73-168; Role: Researcher; 2012-2016;
 47. PNCDI II – CAPACITATI (Modulul II) Perspective Studies „NanoProspect”; Role: Researcher; Period of implementation: 2010-2011;
 48. PNCDI II – CAPACITATI (Modulul III) - Bilaterală România-Germania/Natural nanoparticles in soil as possible environmental vectors for contaminants; Ctr. Nr. 327/18. 08. 2009; Role: Researcher; Period of implementation: 2009;
 49. PNCDI II – Partnership: Multifunctional nanobiocomposites used as regenerative and drug delivery support–SIMAC; Ctr. Nr. 72_198; Role: Researcher; Period of implementation: 2008– 2011;
 50. PNCDI II – Partnership: Lead-free piezoelectric materials chemically processed from aqueous solution / Materiale piezoelectrice fara plumb procesate prin metode chimice in solutie – MPPC; Ctr. Nr. 72_153; Role: Researcher; Period of implementation: 2008 – 2011;
 51. PNCDI II – Partnership: Miniaturized biosensor, micro technology, organophosphorous insecticides, acetylcholinesterase (AChE), acetylthiocholine (ACh) / Microtehnologia obtinerii de biosenzori miniaturizati pentru detectare rapida a contaminantilor din produsele alimentare; Ctr. Nr. 52_173; Role: Researcher; Period of implementation: 2008 – 2011;
 52. PNCDI II – Partnership: Experimental and Epidemiological study related to the action of Persistent Organic Pollutants on growing, development, function of tiroidian immunity and estrogenic secretion / Studiu epidemiologic si experimental privind actiunea poluantilor organici persistenti (POP) pe cresterea, dezvoltarea, functia si

- imunitatea tiroidiana si pe secretia estrogenica; Ctr. Nr. 32_176/01. 10. 2008; Role: Researcher; Period of implementation: 2008–2011;
53. **Proiect PN II_MC** – Electric field influence on collagen mineralization process; Role: Project manager; Period of implementation: 2008;
54. **PNCDI II– Partnership**: The achievement of new biomaterials with collagenic, supramolecular doped structures with piezoelectrical, liquid crystals, electrical and magnetical properties used for biotechnology; Ctr. Nr. 71_147; Role: Researcher; Period of implementation: 2007 – 2010;
55. **PN II_TD** – Collagen/Hydroxyapatite Composite Materials; Role: Project manager; Period of implementation: 2007 – 2009;
56. **PN II_BD** – Composite Biomaterials based on Collagen and Hydroxyapatite; Role: Project manager; Period of implementation: 2006 – 2009;
57. **P-CD CEEX**: Combinatorial library for the synthesis of neutral receptors of inorganic anions; from project to potential applications; Role: Researcher; Period of implementation: 2006–2008;
58. **PNCDI I-CERES** type PED/Hybrid membranar materials with polyphosphazenic backbone; Role: Researcher; Period of implementation: 2002- 2004.

Prizes and Awards:

Over 150 prizes and awards. Some of the most relevant are:

Romanian Research Gala (Gala Cercetării Românești), 1st edition, Bucharest, Romania, Organized by the Ministry of Research, Innovation and Digitization under the Aegis of the Romanian Government **Special Award for Transfer of the Results into Economy**

Capital Gala, **Special Prize for Research**

“Gândit in Romania” Gala, **Special Prize for Research**

5 best Paper Award for papers published or presented at different conferences;

Special Prize awarded by International Federation of Inventors’ Associations (IFIA)

Canadian Special Award: Innovation Initiative Co-operative Inc. “The Inventors Circle”

Special Award Croatian Inventors Network

Thailand Award for the Best International Invention & Innovation

International Special Award: Macao Innovation and Invention Association

“**Diploma de Excelență**” awarded by the AGEPI, Moldova

“**Special Award**” awarded by the Industrial Property Office of the Czech Republic

“**Special Award**” awarded by Korea Invention Academy (KiA)

“**Special Prize and Excellence diploma**” awarded by the delegate of Thailand

Prize: “**In tempore opportuno**” awarded by University POLITEHNICA of Bucharest

Valedictorian diploma awarded by University POLITEHNICA of Bucharest/ Faculty of Applied Chemistry and Materials Science

1st Prize: Petru Spacu Analytical Chemistry Contest awarded by University POLITEHNICA of Bucharest–Faculty of Applied Chemistry and Materials Science

Honorary Citizen issued by Local Council and Municipality of Baia Mare, Romania

Special Prize: Selection for the “Romanian National Chemistry Team” awarded by Romanian Ministry of Education

Organizing committee

2020-2025: Virtual International Scientific Conference on “Applications of Chemistry in Nanosciences and Biomaterials Engineering – NanoBioMat Sumemr and Winter edition

2018-2025: International Chemical Engineering and Materials Symposium, SICHEM (biannual conference)

2022: 6th International Congress on 3D Printing (Additive Manufacturing) Technologies and Digital Industry 2022 (hybrid); 22-23 November, 2022 Bucharest, Romania

2022: 35th International Conference on Nanomaterials and Nanotechnology; March 25-26, 2022 Berlin, Germany;

2022: Conferința Științifico-Practică Internațională „Instruire prin Cercetare pentru o Societate Prosperă”, ediția a IX-a; Chișinău, 19 – 20 martie 2022;

2021/2025: CONSILOX Conference of Science and Engineering of Oxide Materials;

2020: The 8 International Conference on Advanced Materials and Systems, 1-3 October, Bucharest, ROMANIA;

2018: 8th International Conference on Environmental Pollution and Remediation (ICEPR'18); 19-21 August 2018, Madrid, Spain

2017: Romanian International Conference on Chemistry and Chemical Engineering, 6-9 September 2017; Poiana Brasov, Romania.

2017: 2017 ICG Annual Meeting and 32nd Şişecam Glass Symposium; October 22-25th 2017, Istanbul, Turkey

- Specializations:** 2016: 6th International Advances in Applied Physics and Materials Science Congress & Exhibition, 1-3 June 2016, Steigenberger Hotel Maslak, İstanbul, Turkey
- 25-26 June 2009: How to write scientific papers: organized by CNCSIS-UPB
 - 12-16 June 2009: ESF Summer School in Nanomedicine, Lisbon, Portugal
 - June – August 2004 Research stage at Università degli Studi di Modena e Reggio Emilia, Italy; New electrochemical sensors; (3 months)
 - September – December 2005 Research stage at OrtoCycle Co. Hollywood, Florida, USA; Improving dental adhesives
 - Graduation certificate of the courses for operation and use of GC, HPLC, GC-MS, LC-MS, UV-Vis, FTIR spectroscope and microscope, ICP-OES, ICP-MS, AAS

Publication List

Anton FICAI

PHD THESIS: Composite Biomaterials based on Collagen and Hydroxyapatite

POSTDOCTORAL THESIS: Composite Biomaterials

BOOKS AND CHAPTERS

1. Charles Oluwaseun Adetunji, Chukwuebuka Egbuna, Anton Fikai, Oluwatosin Ademola Ijabadeniyi; Wiley, december 2024; 586pages; Handbook of Agricultural Biotechnology, Volume 5: Nanobiofertilizers (Handbook of Agricultural Bionanobiotechnology);
2. Ludmila Motelica, Ovidiu Oprea, Denisa Fikai, and Anton Fikai; Introduction to Biomaterials and Tissue Engineering, (Chapter 1, pages 1-30) in Biomaterials and Tissue Engineering; Oguzhan Gunduz, Christophe Egles, Román A. Pérez, Denisa Fikai, Cem Bulent Ustundag (Editors); Springer; ISBN 978-3-031-35831-9; 390pages
3. Angela Spoială, Cornelia-Ioana Ilie, Denisa Fikai, and Anton Fikai; Biomaterials, Chapter 4, pages 97-130 in Biomaterials and Tissue Engineering; Oguzhan Gunduz, Christophe Egles, Román A. Pérez, Denisa Fikai, Cem Bulent Ustundag (Editors); Springer; ISBN 978-3-031-35831-9; 390pages
4. Paul Adrian Tărăbuță, Ludmila Motelica, Denisa Fikai, Ovidiu Oprea, Anton Fikai, and Ecaterina Andronescu; Drug Delivery Systems for Tissue Engineering, (Chapter 7, pages 205-238) in Biomaterials and Tissue Engineering; Oguzhan Gunduz, Christophe Egles, Román A. Pérez, Denisa Fikai, Cem Bulent Ustundag (Editors); Springer; ISBN 978-3-031-35831-9; 390pages
5. Angela Spoială, Cornelia-Ioana Ilie, Denisa Fikai, Anton Fikai; Chapter 2. A Review of Soil Phytoremediation Technologies; in *Pesticide Residues: Chemistry, Toxicology and Environmental Impact*; David J. Goode (Editor); Nova Science Publishers, Inc.; pg 63 – 89; ISBN: 979-8-88697-557-4 (**English**)
6. Alina Moroșan; Alexa-Maria Croitoru; Georgiana Dolete; Angela Spoială; Denisa Fikai; Anton Fikai; Mariana Carmen Chifiriuc. Nanotechnologies - A Modern Approach against the Development of Bacterial Resistance; Austin Publishing Group. Vol. 1, Chapter 3, pp. 39-48. (**English**)
7. **Anton Fikai**, Alexandru Grumezescu (Editors); Nanostructures for Antimicrobial Therapy; Elsevier Science Publishing Co Inc; 722pages; ISBN 0323461522; 2017; (**English**)
8. *Alexandru Mihai Grumezescu, **Anton Fikai** (Editors); Nanostructures for Cancer Therapy; Elsevier Science Publishing Co Inc; 920pages; ISBN 0323461522; 2017; (**English**)*
9. Fikai D, **Fikai A.** Prevention of biofilm formation by material modification. Biofilms and Implantable Medical Devices: Infection and Control: Elsevier Inc.; 2016. p. 160-180; (**English**)
10. Mariana Carmen Chifiriuc, **Anton Fikai**, Alexandru Mihai Grumezescu, Lia-Mara Ditu, Marcela Popa, Carmen Iordache, Alina Maria Holban, Șerban Vifor Gabriel Beresteanu, Raluca Grigore, Veronica Lazar; Chapter 1 - Soft tissue engineering and microbial infections: Challenges and perspectives; in *Nanobiomaterials in Soft Tissue Engineering, 2016, 1-29; (**English**)*
11. Denisa Fikai, Madalina Georgiana Albu, Maria Sonmez, **Anton Fikai**, Ecaterina Andronescu; Chapter 13 - Advances in the field of soft tissue engineering: From pure regenerative to integrative solutions in Nanobiomaterials in Soft Tissue Engineering Applications of Nanobiomaterials Volume 5; *Alexandru Grumezescu (Ed)*; Elsevier, 2016; 355-386; (**English**)
12. **Fikai A**, Fikai D, Andronescu E, Yetmez M, Ozkalayci N, *et al.* Nanotechnology in dentistry. Nanobiomaterials in Dentistry: Applications of Nanobiomaterials: Elsevier Inc.; 2016. p. 187-210. (**English**);

13. DENISA FICAI, **ANTON FICAI**, ECATERINA ANDRONESCU; Advances in Cancer Treatment; Role of Nanoparticles; INTECH, 2015, 1-21 (**English**);
14. Alexandru Mihai Grumezescu, Alina Maria Holban, **Anton Fikai**, Valentina Grumezescu, Veronica Lazar and Mariana Carmen Chifiriuc: Nanosized Materials with Antibiofilm Activity. Recent Developments in Biotechnology Vol. 10: Nano-Biotechnology, Studium Press LLC, Houston, USA, 2013 (**English**);
15. Mariana Carmen Chifiriuc, Alexandru Mihai Grumezescu, **Anton Fikai**, Alina Maria Holban: Applications of Nanotechnology for the Development of New Microbicidal and Microbiostatic Strategies. Recent Developments in Biotechnology Vol. 10: Nano-Biotechnology, Studium Press LLC, Houston, USA, 2013 (**English**);
16. Ecaterina ANDRONESCU, Alexandru Mihai GRUMEZESCU, Cristina GHITULICA, **Anton FICAI**, Denisa FICAI and Mariana Carmen CHIFIRIUC; Novel Approach to Fabricate Magnetic Nanostructures for Biomedical Applications; Nanotechnology – Vol. 5 Drug Delivery & Nanomedicine; STUDIUM PRESS LLC, ISBN: 1-62699-007-751-89 (38pages, **English**);
17. Denisa FICAI, **Anton FICAI**, Alexandru Mihai GRUMEZESCU; Organic Chemistry; Workbook of theoretical Applications; SITECH Publishing House, Craiova 2012; ISBN 978-606-11-2343-8 (340 pages, **Romanian**);
18. **Anton FICAI**, Ecaterina ANDRONESCU; Biomateriale compozite pe bază de colagen și hidroxiapatită utilizate în reconstrucția osoasă (*Collagen and hydroxyapatite based composite biomaterials for bony tissue reconstruction*); Politehnica Press, 2011; ISBN: 978-606-515-257-1 (180 pages, **Romanian**);
19. **Anton FICAI**, Ecaterina ANDRONESCU, Georgeta VOICU and Denisa FICAI; "Advances in Collagen/Hydroxyapatite Composite Materials" in "Advances in composite materials for medicine and nanotechnology" Editura INTECH, 2011, ISBN 978-953-307-235-7 pg. 3-32 (**English**);
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Anton FICAI

