



## Personal information

First name(s) / Surname(s) **Anton FICAI**  
Address(es) Home: 30-32, Rahovei st, Bragadiru, Ilfov, ROMANIA  
Work: 1-7 Gh Polizu St, District 1, 011061 Bucharest, Romania  
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[anton\\_ficai81@yahoo.com](mailto:anton_ficai81@yahoo.com)  
Nationality Romanian  
Date of birth 12. 11. 1981  
Gender male

**Current employment / Occupational field** **Professor, Ph. D. Habil. Eng.**  
**Associate member of Academy of Romanian Scientists**

## Work experience

Dates October 2017 – onward  
Occupation or position held **Prof. Habil. Dr. Eng.**  
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 Applied Chemistry and Materials Science, Department of Oxide Materials and Nanomaterials  
Type of business or sector Education + Research  
Dates February 2015 – September 2017  
Occupation or position held **Assoc. prof. PHD**  
Main activities and responsibilities Teaching activities (classes and/or applications): Composite Materials for Medicine, General Chemistry, Drug Delivery Systems, Bioceramics; Research activities  
Name and address of employer POLITEHNICA University of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Oxide Materials and Nanomaterials  
Type of business or sector Education  
Dates Oct. 2011 – 2015  
Occupation or position held **Lecturer, PHD**  
Main activities and responsibilities Teaching activities: Composite Materials for Medicine, Chemistry and Drug Delivery Systems; Research activities  
Name and address of employer POLITEHNICA University of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Oxide Materials and Nanomaterials  
Type of business or sector Education

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

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 5 national and international conferences  
Type of business or sector Education

### **Education and training**

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

Dates 2006-2009  
Title of qualification awarded **PhD. Eng.**  
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

Dates 2005-2007  
Title of qualification awarded **Master of Science degree**  
Principal subjects/occupational skills covered Materials, Substances and Biocompatible Systems  
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

Dates 2000-2005  
Title of qualification awarded **Chemical Engineer**  
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)	<b>Romanian</b>									
Other language(s)										
Self-assessment	<b>Understanding</b>				<b>Speaking</b>				<b>Writing</b>	
<i>European level (*)</i>	Listening		Reading		Spoken interaction		Spoken production			
<b>ENGLISH</b>	B2	Independent User	B2	Independent User	B2	Independent User	B2	Independent User	B1	Independent User
<b>ITALIAN</b>	A1	Basic user	A2	Basic user	A1	Basic user	A2	Basic user	A1	Basic user
<b>FRENCH</b>	A1	Basic user	A2	Basic user	A1	Basic user	A2	Basic user	A1	Basic user

(\*) [Common European Framework of Reference for Languages](#)

Social skills and competences	Team work: I was employed as researcher or as manager in 15 national or international research projects (4 as project manager)
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

#### Fields with specific interests:

Bone, Bone grafts, Biomaterials, Nanomaterials and Technologies, Chemistry; Prosthetic Tubular Devices, Drug Delivery System; Materials for Environmental Applications, etc.

#### Publications

- Over 175 per-reviewed published works (over 150 is indexed in ISI Web of Science); cumulative impact factor >200; Hirsh index 22 (ISI); No. of citations > 1300;
- 16 Books and Chapters of books;
- 3 patent issued by OSIM and 6 pending Patent Applications

#### Editorial Boards

*Editorial board:*

- **Revista Romana de Materiale - Romanian Journal of Materials (2017-present) – ISI Indexed**
- **Jacobs Journal of Materials Science (Remedy Publications) (2016-onwards)**
- **Resource-Efficient Technologies (2016-onward)**
- **Dovepress (2015 – onwards) – consulting editor**
- **Materials Science and Engineering Journal (2017-onwards)**
- **Quantitative Imaging in Medicine and Surgery (2015–2017) – SCOPUS indexed**
- **Journal of Nanomaterials, Nanotechnology and Nanomedicine, (2015-onward)**
- **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.**

*Guest editor:*

- **Design and performances of medical devices: from bulk to surface modification, Current Medicinal Chemistry (2019);**
- **New challenges in cancer treatment, from novel agents to innovative administration, Anti-Cancer Agents in Medicinal Chemistry (2019);**
- **Nanobiosensors in Food Industry, Sensors (2017)**
- **Sustainability of Nanotechnology: Novel Approaches; Sustainability (2017);**
- **Smart Drug Delivery Systems, Current Drug Targets (2015);**
- **Engineered Magnetic Core@Shell Structures, Current Pharmaceutical Design 2015;**
- **Engineered Biomaterials for Tissue Regeneration, The Science World Journal (2014).**

#### Reviewer

- **Journal of Cellular and Molecular Medicine (Wiley, ISI factor 5,6);**

- **Journal of Molecular Structure** (Elsevier, ISI factor 1,594);
- **Materials Letters** (Elsevier, ISI factor 1,94);
- **Materials Chemistry and Physics** (Elsevier, ISI factor 2,353);
- **Materials Science and Engineering B** (Elsevier, ISI factor 1,56);
- **Journal of Applied Polymer Science** (Wiley, ISI factor 1,24);
- **Journal of Nanoparticle Research** (Springer, ISI factor 3. 287);
- **Chemical paper** (Springer, ISI factor 1. 076);
- **Current Nanoscience** (Bentham, ISI factor 1,776);
- **Romanian Journal of Materials** (ISI factor 0. 378);
- **Iranian Polymer Journal** (Springer, ISI factor 0. 936);
- **Journal of Research in Environmental Science and Toxicology**;
- **Journal of Nanoscience and Nanotechnology**.

**Research Projects** 38 research projects with national and international financing (9 of them being project manager/responsible)

1. PN-III-P4-ID-PCCF-2016-0114; Selectia si diseminarea genelor de rezistenta la antibiotice de la nivelul statiilor de epurare a apelor uzate in mediul acvatic si sectorul clinic; Role: Researcher/ **Responsible of UPB**; Period of implementation: 2018-2022
2. PN-III-P1-1.2-PCCDI-2017-0697; 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
3. PN-III-P1-1.2-PCCDI-2017-0629; Bionanomateriale Inovative pentru Tratament si Diagnostic; Period of implementation: 2018-2020
4. PN-III-P1-1.2-PCCDI-2017-0749; Nanostructuri bioactive pentru strategii terapeutice inovatoare; Period of implementation: 2018-2020
5. PN-III-P1-1.2-PCCDI-2017-0689; Lib2Life- Revitalizarea bibliotecilor și a patrimoniului cultural prin tehnologii avansate; Period of implementation: 2018-2020
6. 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;
7. Project JINR-RO 2018; Development and characterisation of magnetic nanostructures for targeted cancer therapy; Responsible UPB; Period of implementation: 2018;
8. 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;
9. PN-III-P2-2. 1-PED-2016-0427; Realizare demonstrator in tehnologia planara de tranzistor cu tunelare a izolatorilor ultrasubtiri - ca promotor al unei serii de nano-dispozitive si evidentierea utilitatii in industrie; Role: Researcher; Period of implementation: 2017-2018
10. PN-III-P2-2. 1-PED-2016-0952 "Structuri poroase biomimetice obtinute prin printare 3D pentru ingineria tesutului osos" Role: Researcher; Period of implementation: 2017-2018
11. **63/10. 04. 2017/IUCN DUBNA; Nanostructured magnetic colloids for targeted cancer therapy; Role: project manager; Period of implementation: 2017**
12. 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;
13. PN-III-P2-2. 1-PTE-2016-0156; Harnessing recycled thermoplastic polymers by reinforcement with functionalized natural fibers to obtain new added-value products; Rol: Researcher; Period of implementation: 2016-2018;
14. 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;
15. **POC-D; Prototip pentru validare nanotehnologie inovatoare și linie de producție (P\_39\_240), manager de proiect**
16. 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: 2015-2018;

17. 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;
18. „Installations of National Interest / Instalatii de Interes National: *Creerea Centrului National de Micro si Nanomateriale / Creation of the National Centre of Micro- and Nanomaterials*” Role: **project manager**; Period of implementation: **2014-2019**
19. 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;
20. 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;
21. 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;
22. MPNS COST Action MP1301: New Generation Biomimetic and Customized Implants for Bone Engineering; Role: member of the Romania team; 2013-2017
23. TD COST Action TD1305: Improved Protection of Medical Devices Against Infection (IPROMEDAI); Role: member of the Romania team; 2013-2017
24. 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;
25. **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;**
26. 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;
27. PNCDI II – CAPACITATI (Modulul II) Perspective Studies „NanoProspect”; Role: Researcher; Period of implementation: 2010-2011;
28. PNCDI II – CAPACITATI (Modulul III) - Bilaterală Romania-Germania/Natural nanoparticles in soil as possible environmental vectors for contaminants; Ctr. Nr. 327/18. 08. 2009; Role: Researcher; Period of implementation: 2009;
29. PNCDI II – Partnership: Multifunctional nanobiocomposites used as regenerative and drug delivery support–SIMAC; Ctr. Nr. 72\_198; Role: Researcher; Period of implementation: 2008– 2011;
30. 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;
31. 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;
32. 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;
33. **Proiect PN II\_MC – Electric field influence on collagen mineralization process; Role: Project manager; Period of implementation: 2008;**
34. PNCDI II– Partnership: The achievement of new biomaterials with collagenic, supramolecular doped structures with piezoelectical, liquid crystals, electrical and magnetical properties used for biotechnology; Ctr. Nr. 71\_147; Role: Researcher; Period of implementation: 2007 – 2010;
35. **PN II\_TD – Collagen/Hydorxyapatite Composite Materials; Role: Project**

- manager; Period of implementation: 2007 – 2009;**
36. **PN II\_BD – Composite Biomaterials based on Collagen and Hydroxyapatite; Role: Project manager; Period of implementation: 2006 – 2009;**
  37. 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;
  38. PNCDI I-CERES type PED/Hybrid membranar materials with polyphosphazenic backbone; Role: Researcher; Period of implementation: 2002- 2004.

**Prizes and Awards: 2018: World Competition of Chemical Inventions IWIS2018\_15-17Oct 2018, Warsaw, Poland**

**“Bronze medal”** awarded for the invention *“Osteoconductive and osteoinductive bone grafts and process for their manufacturing”* authors A. FICAI, E. Andronescu, M.G. Albu, D. FICAI, M. Sonmez;

**“Silver Medal”** for the patent *“Synthesis procedure of some multifunctional composite materials with potential applications in bone cancer treatment”* authors: A FICAI, E ANDRONESCU, C. D. GHITULICA, D. FICAI, Georgeta VOICU, G. M. ALBU

**“Silver Medal”** for the patent *“Magnetite/thioacids@Ag or Au multifunctional systems used for diagnosis and targeted delivery in cancer”*, Denisa FICAI, Ecaterina ANDRONESCU, Maria SONMEZ, **Anton FICAI**, Ovidiu OPREA, Bogdan Stefan VASILE A/00238/2013)

**“Bronze medal”** awarded for *“Functionalized magnetic systems for environmental applications”*, Denisa FICAI, **Anton FICAI**, Cornelia Guran, Ecaterina Andronescu, A00164/2011; (RO127889 (A2); RO127889 (B1))

**2018 20th International Conference on Synthetic Polymer Chemistry, Nanoscience and Nanotechnology - ICSPCNN 2018:**

**Certificate of Best Presentation Award** for the paper *„Synthesis and Characterization of Some Alginate Hollow Fibres Using Co-Axial Needles”* authored by Anton FICAI, Ioana Lavinia Ardelean, Roxana Doina Trusca, Bogdan Stefan Vasile, Denisa FICAI, Ecaterina Andronescu

**2018 International Salon for Scientific Research, innovation and Inventions, “ProInvent”, Cluj Napoca, Romania**

**“Gold medal with special mention”** (for the patent application A00734/27. 09. 2017 *“Innovative formulations for dental applications”* authors: Anton FICAI, Denisa FICAI, Ovidiu OPREA, Ecaterina ANDRONESCU, Stefan MANEA, Anna-Maria PANGICĂ, Petru BODOGA, Ludmila MOTELICA);

**“Excellence diploma” awarded by Justin Capra Association** (for the patent application A00734/27. 09. 2017 *“Innovative formulations for dental applications”* authors: A FICAI, D FICAI, O OPREA, E ANDRONESCU, S MANEA, A-M PANGICĂ, P BODOGA, L MOTELICA);

**“Gold medal and Excellence diploma” awarded by “Nicolae Testemițeanu” Medicine and Pharmacy State University, Moldavia** (for the patent application A00734/27. 09. 2017 *“Innovative formulations for dental applications”* authors: Anton FICAI, Denisa FICAI, Ovidiu OPREA, Ecaterina ANDRONESCU, Stefan MANEA, Anna-Maria PANGICĂ, Petru BODOGA, Ludmila MOTELICA);

**“Gold medal with special mention”** (for the patent application A01045/07.12. 2017 *“Polymer/Ceramic Composite Materials and Process for their Manufacturing”* authors: A FICAI, MG ALBU-KAYA, D FICAI, V MITRAN, A CIMPEAN, E ANDRONESCU)

**“Excellence diploma” awarded by Justin Capra Association** (for the patent application A01045/07. 12. 2017 *“Polymer/Ceramic Composite Materials and Process for their Manufacturing”* authors: A FICAI, MG ALBU-KAYA, D FICAI, V MITRAN, A CIMPEAN, E ANDRONESCU)

**“Excellence Diploma” awarded by “Nicolae Testemițeanu” Medicine and Pharmacy State University, Moldavia** (for the patent application A01045/07. 12. 2017 *“Polymer/Ceramic Composite Materials and Process for their Manufacturing”* authors: A FICAI, MG ALBU-KAYA, D FICAI, V MITRAN, A CIMPEAN, E ANDRONESCU).

**2018 Salonul Internațional de Invenții și Inovații “Traian VUIA”, Timișoara, Romania**

**“Gold medal”** (for the patent application *“Compositions and process for obtaining innovative enzymatic formulations for root canal lavage”* authors Anton FICAI, Denisa FICAI, Ovidiu OPREA, Stefan MANEA, Anna-Maria PANGICĂ, Petru BODOGA, Camelia AGAPESCU);

**“Gold Medal”** for the patent *“Synthesis procedure of some multifunctional composite materials with potential applications in bone cancer treatment”* authors: A FICAI, E ANDRONESCU, C. D. GHITULICA, D. FICAI, Georgeta VOICU, G. M. ALBU

**“Bronze Medal”** (for the patent application *“Bone grafts based on collagen, calcium phosphate and zinc and process for their manufacturing”* authors A. FICAI, E. ANDRONESCU, D. FICAI, M. SONMEZ, I. A. NEDELUCU, M. G. ALBU);

**“Gold Medal”** (for the patent application *“Grefe osoase osteoinductive si osteoconductive si procedeu de obținere a acestora”* A00239/23. 03. 2013);

**“Gold Medal”** (for the invention *“Magnetite/thioacids@Ag or Au multifunctional systems used for diagnosis and targeted delivery in cancer”* A/00238/2013)

**“Gold Medal”** (for the invention *“Functionalized magnetic systems for environmental applications”* RO 127889)

**“Special Award”** awarded by Otlet Club 13 for the series of the presented inventions

**“Special Prize”** awarded by State University of Medicine and Pharmacy “Nicolae Testemițanu”, Moldova (for the patent application *“Bone grafts based on collagen, calcium phosphate and zinc and process for their manufacturing”* authors A. Ficai, E. Andronescu, D. Ficai, M. Sonmez, I.A. Nedelcu, M.G. Albu);

**“Special Prize”** awarded by State University of Medicine and Pharmacy “Nicolae Testemițanu”, Moldova (for the invention *“Osteoconductive and osteoinductive bone grafts and process for their manufacturing”* authors A. Ficai, E. Andronescu, M.G. Albu, D. Ficai, M. Sonmez);

**“Special Prize + Gold Medal”** awarded by State University of Medicine and Pharmacy “Nicolae Testemițanu”, Moldova (for the patent *“Synthesis procedure of some multifunctional composite materials with potential applications in bone cancer treatment”* authors: A Ficai, E Andronescu, C.D. Ghitulica, D. Ficai, G. Voicu, G.M. Albu);

**“Special Prize”** awarded by Universitatea de Medicină și Farmacie “Victor Babeș” din Timișoara (for the patent *“Synthesis procedure of some multifunctional composite materials with potential applications in bone cancer treatment”* authors: A Ficai, E Andronescu, C.D. Ghitulica, D. Ficai, G. Voicu, G.M. Albu);

**“Excellence Diploma”** awarded by Banat’s University of Agricultural Sciences and Veterinary Medicine “King Michael I of Romania”, Timișoara (for the researches in the medical field for the authors A. Ficai, D. Ficai, M Sonmez, O Oprea, BS Vasile, S Manea, AM Pangica, P Bodoga, C Agapescu, C.D. Ghitulica, E Andronescu);

**2018: 22th International Exhibition of Inventics - Inventica; 27-29. 06. 2018, Iasi, Romania**

**“Gold medal”** (for the patent application A01045/07. 12. 2017 *“Polymer/Ceramic Composite Materials and Process for their Manufacturing”* authors: Anton FICAI, Mădălina Georgiana ALBU-KAYA, Denisa FICAI, Valentina MITRAN, Anișoara CIMPEAN, Ecaterina ANDRONESCU);

**“Gold medal”** (for the project *“Novel nanostructured polymeric composite designed for pallet lining, connecting plate and other components for the railway industry”* authors: Anton FICAI, Laura ALEXANDRESCU, Ligian TUDOROIU);

**“Gold medal”** (for the project *“Titanium Oxynitride Coatings for the Improvement of Biocompatibility and Long-Term Functionality of Cardiovascular Stents: Development of Novel Deposition Technology- TIOXTECH-BIO”* authors: A Ficai, OR Duta, D Ficai, E. Andronescu, et al.)

**“Excellence diploma and Gold Medal”** awarded by ICECHIM (for the patent application A00734/27. 09. 2017 *“Innovative formulations for dental applications”* authors: Anton FICAI, Denisa FICAI, Ovidiu OPREA, Ecaterina ANDRONESCU, Stefan MANEA, Anna-Maria PANGICĂ, Petru BODOGA, Ludmila MOTELICA);

**“Excellence diploma and Gold Medal”** awarded by ICECHIM (for the project *“Titanium Oxynitride Coatings for the Improvement of Biocompatibility and Long-Term Functionality of Cardiovascular Stents: Development of Novel Deposition Technology- TIOXTECH-BIO”* authors: A Ficai, OR Duta, D Ficai, E. Andronescu, et al.);

**“Special Prize + Gold Medal”** awarded by State University of Medicine and Pharmacy “Nicolae Testemițanu”, Moldova (for the project *“Titanium Oxynitride Coatings for the Improvement of Biocompatibility and Long-Term Functionality of Cardiovascular Stents: Development of Novel Deposition Technology- TIOXTECH-BIO”* authors: A Ficai, OR Duta, D Ficai, E. Andronescu, et al.);

“**Special Prize**” awarded by “Lucian Blaga” University of Sibiu (for the patent application A00734/27. 09. 2017 “Innovative formulations for dental applications” authors: Anton FICAI, Denisa FICAI, Ovidiu OPREA, Ecaterina ANDRONESCU, Stefan MANEA, Anna-Maria PANGICĂ, Petru BODOGA, Ludmila MOTELICA);

“**Innovation Award**” awarded by “Carol Davila” University of Medicine and Pharmacy, Bucharest (for the project “Titanium Oxynitride Coatings for the Improvement of Biocompatibility and Long-Term Functionality of Cardiovascular Stents: Development of Novel Deposition Technology- TIOXTECH-BIO” authors: A Fikai, OR Duta, D Fikai, E. Andronescu, et al.);

**2017 Best paper awarded** by WASET during 19th International Conference on Environmental, Biomedical and Biotechnology – ICEBB 2017: held at Venice, Italy for the paper “Collagen/Hydroxyapatite Compositions doped with Transitional Metals for bone tissue Engineering Applications” authors; Denisa FICAI, Anton FICAI, Dragos GUDOVAN, Iulia GUDOVAN, Ioana ARDELEAN, Roxana TRUSCA, Ecaterina ANDRONESCU, Valentina MITRAN, Anisoara CIMPEAN.

**2017 Best paper awarded** by ASET during 8<sup>TH</sup> International Conference on Nanotechnology: Fundamentals and Applications - ICNFA'17 held at Rome, Italy for the paper Design of TiO<sub>x</sub>N<sub>y</sub> for coating technology, Anton Fikai, Denisa Fikai, Bogdan Stefan Vasile, Roxana Doina Trusca, Dragos Gudovan, Ovidiu Oprea, Motelica Ludmila, Ecaterina Andronescu.

**2017 Best paper awarded** by WASET during 19th International Conference on Nanotechnology and Nanomedicine the - ICNN 2017: held at Prague, Czech Republic for the paper: Nanostructured Wound Dressings for Prevention and Treatment of Skin Infections, Anton FICAI, Roxana Doina TRUSCA, Alina Holban, Denisa FICAI, Ecaterina ANDRONESCU.

**2017: 21th International Exhibition of Inventics - Inventica; 28-30. 06. 2017, Iasi, Romania**

“**Gold medal**” (for the project “Cellulose fibers functionalization in order to design the properties of the finite products” authors Anton FICAI, Ecaterina ANDRONESCU, Maria SONMEZ, Denisa FICAI, Ioan Avram NEDELCU; Madalina Georgiana ALBU);

“**Gold medal**” (for the invention “*Compositions and process for obtaining innovative enzymatic formulations for root canal lavage*” authors Anton FICAI, Denisa FICAI, Ovidiu OPREA, Stefan MANEA, Anna-Maria PANGICĂ, Petru BODOGA, Camelia AGAPESCU)

“**Gold medal**” (for the patent “*Synthesis procedure of some multifunctional composite materials with potential applications in bone cancer treatment*” authors: A FICAI, E ANDRONESCU, C. D. GHITULICA, D. FICAI, Georgeta VOICU, G. M. ALBU)

“**Gold medal**” (for the patent application “Bone grafts based on collagen, calcium phosphate and zinc and process for their manufacturing” authors A. FICAI, E. ANDRONESCU, D. FICAI, M. SONMEZ, I. A. NEDELCU, M. G. ALBU)

”**Special prize**” awarded by Romanian Association for alternative Technologies – ARTA Sibiu (for the invention “*Compositions and process for obtaining innovative enzymatic formulations for root canal lavage*” authors Anton FICAI, Denisa FICAI, Ovidiu OPREA, Stefan MANEA, Anna-Maria PANGICĂ, Petru BODOGA, Camelia AGAPESCU);

“**Special prize**” awarded by State University of Medicine and Pharmacy “Nicolae Testemițanu”, Moldova (for the project “*Synthesis procedure of some multifunctional composite materials with potential applications in bone cancer treatment*” authors: Anton FICAI, Ecaterina ANDRONESCU, Cristina Daniela GHITULICA, Denisa FICAI, Georgeta VOICU, Georgiana Madalina ALBU);

“**Special prize**” awarded by State University of Medicine and Pharmacy “Nicolae Testemițanu”, Moldova (for the invention “*Compositions and process for obtaining innovative enzymatic formulations for root canal lavage*” authors Anton FICAI, Denisa FICAI, Ovidiu OPREA, Stefan MANEA, Anna-Maria PANGICĂ, Petru BODOGA, Camelia AGAPESCU)”.

**2017: 9<sup>th</sup> European Exhibition of Creativity and Innovation-EuroInvent 2017, 25-27. 05. 2017; Iași, Romania**

“**Gold medal**” (for the invention “Bone grafts based on collagen, calcium phosphates and zinc and process for their manufacturing” authors Anton FICAI, Ecaterina ANDRONESCU, Maria SONMEZ, Denisa FICAI, Ioan Avram NEDELCU; Madalina Georgiana ALBU);



”**Special prize**” awarded by Institutul de Chimie al Academiei de Științe din Moldova (for the invention “Bone grafts based on collagen, calcium phosphates and zinc and process for their manufacturing” authors Anton FICAI, Ecaterina ANDRONESCU, Maria SONMEZ, Denisa FICAI, Ioan Avram NEDELICU; Madalina Georgiana ALBU);

”**Special prize**” awarded by Universitatea Lucian Blaga din Sibiu (for the invention “Bone grafts based on collagen, calcium phosphates and zinc and process for their manufacturing” authors A FICAI, E ANDRONESCU, M SONMEZ, D FICAI, IA NEDELICU; MG ALBU);

”**Silver medal**” (for the invention “*Compositions and process for obtaining innovative enzymatic formulations for root canal lavage*” authors A FICAI, D FICAI, O OPREA, S MANEA, A-M PANGICĂ, P BODOGA, C AGAPESCU)

”**Special prize**” awarded by Universitatea de Stat din Tiraspol (for the invention “*Compositions and process for obtaining innovative enzymatic formulations for root canal lavage*” authors Anton FICAI, Denisa FICAI, Ovidiu OPREA, Stefan MANEA, Anna-Maria PANGICĂ, Petru BODOGA, Camelia AGAPESCU)

**2016: BRUSSELS INNOVA - The World Exhibition on Inventions, Research and New Technologies, 17 – 19. 11. 2016; Bruxelles, Belgium**

”**Gold medal**” (for the invention “*Magnetite/thioacids@Ag or Au multifunctional systems used for diagnosis and targeted delivery in cancer*”)

”**Special prize**” awarded by Taiwan during the Award Ceremony

**2016: 8<sup>th</sup> European Exhibition of Creativity and Innovation-EuroInvent 2016, 19-21. 05. 2016; Iași, Romania**

”**Gold medal**” (for the invention “*Magnetite/thioacids@Ag or Au multifunctional systems used for diagnosis and targeted delivery in cancer*”)

”**Gold medal**” (for the invention “*Synthesis procedure of some multifunctional composite materials with potential application in bone cancer treatment*”)

”**Silver medal**” (for the invention “*Osteoconductive and osteoinductive bone grafts and process for their manufacturing*”)

”**Silver medal**” (for the invention “*Functionalized magnetic systems for environmental applications, A00164/2011*”);

”**Special prize**” (for the invention “*Synthesis procedure of some multifunctional composite materials with potential application in bone cancer treatment*”) awarded by iSentinel – Mircea MANOLESCU

**2016: XX<sup>th</sup> International Salon of Research, Innovation and Technological Transfer - Inventica 2016; 29. 06-01. 07. 2016, Iasi, Romania**

**Gold medal – The Hamangia Thinker** (for the invention “*Functionalized magnetic systems for environmental applications, A00164/2011*”);

”**Gold medal**” (for the invention “*Osteoconductive and osteoinductive bone grafts and process for their manufacturing*”)

”**Gold medal**” (for the invention “*Multifunctional system based on Magnetite/thioacids@Ag or Au used for diagnosis and targeted delivery in cancer*”)

**2016: 44<sup>th</sup> International Exhibition of Inventions, 13–17. 04. 2016; Geneva, Switzerland**

”**Gold medal**” (for the invention “*Osteoconductive and osteoinductive bone grafts and process for their manufacturing*”)

”**Best Invention Award – Special Prize**” awarded by Hong-Kong Science and Technology Parks Corporation

”**Honorable mention – Special Prize**” awarded by China Delegation of Inventions and Innovation

”**Special prize**” awarded by Turkish Patent Institute.

**2015: 7<sup>th</sup> European Exhibition of Creativity and Innovation-EuroInvent 2015, Iași, Romania**

”**Gold medal**” (for patent application “*Layered Composite Based on Polypropylene Reinforced with Treated Glass Fibre Fabric*”).

**2012: BRUSSELS INNOVA - The World Exhibition on Inventions, Research and New Technologies** (for bone cancer treatment)

”**Gold medal**” (Procedeu de obtinere a unor materiale compozite cu potenziale aplicatii în tratarea cancerului osos, Patent No. 127725/30. 03. 2015)

2012: Prize: “**Best Published Paper–2009**” awarded by Syscomm–“Materiale Plastice”

2011: Prize: “**In tempore opportuno**” awarded by University POLITEHNICA of Bucharest

2005: Valedictorian diploma awarded by University POLITEHNICA of Bucharest/ Faculty of Applied Chemistry and Materials Science

2005: 2nd Prize: Annual Session of Scientific Communications - Analytic Chemistry

- Section awarded by University POLITEHNICA of Bucharest– Faculty of Applied Chemistry and Materials Science
- 2005: 2nd Prize: Annual Session of Scientific Communications – Organic Chemistry Section awarded by University POLITEHNICA of Bucharest– Faculty of Applied Chemistry and Materials Science
- 2004: 2nd Prize: Annual Session of Scientific Communications – CD Nenitzescu Days awarded by University POLITEHNICA of Bucharest– Faculty of Applied Chemistry and Materials Science
- 2004: Special Prize: Annual Session of Scientific Communications – CD Nenitzescu Days awarded by prof. dr. eng. Claude Matasa, general manager of OrthoCycle Company, Hollywood, Florida, USA
- 2002: 2nd Prize: Annual Session of Scientific Communications - Inorganic Chemistry Section awarded by University POLITEHNICA of Bucharest– Faculty of Applied Chemistry and Materials Science
- 2001: 1st Prize: Annual Session of Scientific Communications - Inorganic Chemistry Section awarded by University POLITEHNICA of Bucharest– Faculty of Applied Chemistry and Materials Science
- 2001: 1st Prize: Petru Spacu Analytical Chemistry Contest awarded by University POLITEHNICA of Bucharest–Faculty of Applied Chemistry and Materials Science.
- 2000: Honorary Citizen of Baia Mare issued by Local Council and Municipality of Baia Mare, Romania
- 2000: Special Prize: Selection for the “Romanian National Chemistry Team” awarded by Romanian Ministry of Education
- 1999: 3rd Prize: III Chemistry National Olympiad, Brasov awarded by Romanian Ministry of Education
- 1998: 3rd Prize: Chemistry National Olympiad, Baia Mare awarded by Romanian Ministry of Education

#### Organizing committee

- 2018: International Symposium of Chemical Engineering and Materials SICHEM 2018
- 2018: [2<sup>nd</sup> Biennial Oil, Gas and Petrochemical Conference \(OGPC2018\)](#), Bushehr, Iran, 14 Nov 2018
- 2018: [8<sup>th</sup> 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 32<sup>nd</sup> Şişecam Glass Symposium](#); October 22-25<sup>th</sup> 2017, Istanbul, Turkey
- 2016: [6<sup>th</sup> International Advances in Applied Physics and Materials Science Congress & Exhibition](#), 1-3 June 2016, Steigenberger Hotel Maslak, İstanbul, Turkey

#### Specializations:

- 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 OrthoCycle 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 spectroscopy and microscope, ICP-OES, ICP-MS, AAS

07. 12. 2018

Anton FICAI

## Anton FICAI

**PHD THESIS:** Composite Biomaterials based on Collagen and Hydroxyapatite

**POSTDOCTORAL THESIS:** Composite Biomaterials

### BOOKS AND CHAPTERS

1. **Anton Ficai**, Alexandru Grumezescu (Editors); Nanostructures for Antimicrobial Therapy; Elsevier Science Publishing Co Inc; 722pages; ISBN 0323461522; 2017;
2. *Alexandru Mihai Grumezescu, Anton Ficai (Editors); Nanostructures for Cancer Therapy; Elsevier Science Publishing Co Inc; 920pages; ISBN 0323461522; 2017;*
3. Ficai D, **Ficai A.** Prevention of biofilm formation by material modification. Biofilms and Implantable Medical Devices: Infection and Control: Elsevier Inc.; 2016. p. 160-180;
4. Mariana Carmen Chifiriuc, **Anton Ficai**, 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*;
5. Denisa Ficai, Madalina Georgiana Albu, Maria Sonmez, **Anton Ficai**, 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;
6. **Ficai A**, Ficai 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**);
7. DENISA FICAI, ANTON FICAI, ECATERINA ANDRONESCU; Advances in Cancer Treatment; Role of Nanoparticles; INTECH, 2015, 1-21 (**English**);
8. Alexandru Mihai Grumezescu, Alina Maria Holban, **Anton Ficai**, 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**);
9. Mariana Carmen Chifiriuc, Alexandru Mihai Grumezescu, **Anton Ficai**, 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**);
10. 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**);
11. 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);
12. **Anton FICAI**, Ecaterina ANDRONESCU; Biomateriale compozite pe bază de collagen 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);
13. **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**);
14. **Anton FICAI**, Denisa Mânzu, Volumetrie. De la teorie la aplicații de laborator, Editura Politehnica Press, 2009 ISBN 978-606-515-037-9 (170 pg) (Romanian);
15. Ion ION, Alina Catrinel ION și **Anton FICAI**, **Probleme de chimie analitică**, Ed. a II-a (revizuită și îmbunătățită), Ed. Printech, 2005, ISBN: 973-718-394-0 (Romanian);
16. Ion ION, Alina Catrinel ION și **Anton FICAI**, **Probleme de chimie analitică**, Ed. Cartea Universitară, 2003, ISBN: 973-7956-11-7(Romanian);
17. Alina Catrinel ION, Ion ION, **Anton FICAI**, Dragos ȘTEFAN; Environmental analytical chemistry. Applications of nanosensors. Chemically modified electrode for NO<sub>2</sub> determination in environmental applications; Seria - Micro and nanoengineering, Volume 11 - "Progress in nanoscience and nanotechnologies", Editori: Dan Dascalu, Irina Kleps și Alina Catrinel ION; 2007: 231-239 (**English**).

### ISSUED PATENTS:

1. **A. FICAI**, E. ANDRONESCU, C. D. GHITULICA, D. FICAI, G. VOICU, M. G. ALBU; Procedeu de obtinere a unor materiale compozite cu potientiale aplicatii în tratarea cancerului osos / Process for preparing composite multi-purpose materials with possible applicability in the treatment of bone cancer, Patent No. RO127725/30. 03. 2015 issued by OSIM;
2. Denisa Ficai, **Anton Ficai**, Cornelia Guran, Ecaterina Andronescu, Functionalized magnetic systems for environmental applications Tehnologie de obținere a unor sisteme magnetice funcționalizate pentru aplicații de mediu / Technology for obtaining functionalized magnetic systems, Cerere Numar: A00164/2011; (RO127889 (A2); RO127889 (B1)).
3. Denisa FICAI, Ecaterina ANDRONESCU, Maria SONMEZ, **Anton FICAI**, Ovidiu OPREA, Bogdan Stefan VASILE, Magnetite/thioacids@Ag or Au multifunctional systems used for diagnosis and targeted delivery in cancer - Sisteme multifuncționale de tip magnetita/tioacizi/Ag sau Au, utilizate pentru diagnoza și tratamentul

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4. Denisa FICAI; Andreea ILIEV; **Anton FICAI**; Violeta Georgeta TRUSCA; Anca Violeta GAFENCU; Sanda-Maria BUCATARIU; Gheorghe FUNDUEANU-CONSTANTIN; Maya SIMIONESCU; Ecaterina ANDRONESCU. Vezicule și tuburi polimerice și tehnologie de obținere a acestora. A 01054/05.12.2018 înregistrată la OSIM
5. Denisa FICAI, Ioana ARDELEAN, Cornelia ILIE, Manuela CĂLIN, Elena-Valeria FUIOR, Adrian FIFERE, Mariana PINTEALĂ, Gheorghe FUNDUEANU-CONSTANTIN, **Anton FICAI**, Maya SIMIONESCU, Ecaterina ANDRONESCU “Separator (electro)magnetic vertical a nanoparticulelor izomagnetice”, A 01055/05.12.2018 înregistrată la OSIM
6. **Anton Ficai**, Madalina Georgiana Albu-Kaya, Denisa Ficai, Valentina Mitran, Anișoara Cimpean, Ecaterina Andronescu, Materialele compozite polimer/ceramică și procedeu de obținere a acestora, cerere de brevet Nr. A 01045/07. 12. 2017 înregistrată la OSIM.
7. **Anton FICAI**, Denisa FICAI, Ovidiu OPREA, Ecaterina ANDRONESCU, Stefan MANEA, Anna-Maria PANGICĂ, Petru BODOGA, Ludmila MOTELICA; Compoziție inovativă pentru aplicații dentare; Cerere Numar înregistrare OSIM: A00734/27. 09. 2017
8. **Anton FICAI**, Denisa FICAI, Ovidiu OPREA, Stefan MANEA, Anna-Maria PANGICĂ, Petru BODOGA, Camelia AGAPESCU; Compositions and process for obtaining innovative enzymatic formulations for root canal lavage; Patent application No. A/00472/2016
9. SONMEZ Maria, NITUICA Mihaela, ALEXANDRESCU Laura, STELESCU Daniela Maria, GEORGESCU Mihai, FICAI Denisa, **FICAI Anton**, CONSTANTINESCU Doina, CONSTANTINESCU Murariu Bogdan; “Materiale compozite hibride pe bază de polipropilenă armată cu whiskersuri din carbură de siliciu și fibre de sticlă funcționalizate și procedeu de obținere a acestora / Hybrid composite materials based on polypropylene reinforced with silicon carbide whiskers and functionalized fiberglass, and process for preparing the same”; OSIM A/00613/06/09/2016; RO132437 (A2)
10. GROSU Elena, **Anton FICAI**, RAPA Maria, Sorin ULINICI, Denisa FICAI, Ecaterina ANDRONESCU, Carmen BALOTESCU, Lia Mara DITU; TUBULAR LAMINATED PROSTHETIC DEVICE WITH ANTIMICROBIAL PROPERTIES – Dispozitiv protetic tubular stratificat cu proprietati antimicrobiene; National Patent Application OSIM A/00904/25.11.2014;
11. Maria SONMEZ, Laurenția ALEXANDRESCU, Mihai GEORGESCU, Mihaela NITUICA, Denisa FICAI, **Anton FICAI**, Lidia AVADANEI; Stratified composite materials based on functionalized glass fibre reinforced with polypropylene - Compozit stratificat pe bază de polipropilenă armată cu țesătură din fibră de sticlă tratată; OSIM A/00793/27.10.2014;
12. **Anton FICAI**, Ecaterina ANDRONESCU, Madalina Georgiana ALBU; Denisa FICAI, Maria SONMEZ; Osteoconductive and osteoinductive bone grafts (Grefe osoase osteoinductive si osteoconductive si procedeu de obținere a acestora); OSIM A00239/23.03.2013;
13. **Anton FICAI**, Ecaterina ANDRONESCU, Maria SONMEZ, Denisa FICAI, Ioan Avram NEDELICU; Madalina Georgiana ALBU; Grefe osoase pe bază de colagen, fosfat de calciu și zinc si procedeu de obținere a acestora; OSIM A00240/23.03.2013.

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over 1755 papers from which 155 indexed in ISI Web of Science; 23 as corresponding author; cumulated ISI factor >200; citations ~1300; Hirsh index 22 (ISI Thomson).

1. Teodor ED, Gatea F, **Ficai A**, Radu GL. Functionalized Magnetic Nanostructures for Anticancer Therapy. Current drug targets. 2018;19:239-47.
2. Sonmez M, Ficai D, **Ficai A**, Alexandrescu L, Georgescu M, Trusca R, et al. Applications of mesoporous silica in biosensing and controlled release of insulin. Int J Pharmaceut. 2018;549:179-200.
3. Radulescu M, Popescu S, Ficai D, Sonmez M, Oprea O, Spoiala A, et al. Advances in Drug Delivery Systems, from 0 to 3D Superstructures. Current drug targets. 2018;19:393-405.
4. Negut I, Grumezescu V, **Ficai A**, Grumezescu AM, Holban AM, Popescu RC, et al. MAPLE deposition of Nigella sativa functionalized Fe<sub>3</sub>O<sub>4</sub> nanoparticles for antimicrobial coatings. Appl Surf Sci. 2018;455:513-21.
5. Mutlu EC, **Ficai A**, Ficai D, Yildirim AB, Yildirim M, Oktar FN, et al. Chitosan/poly(ethylene glycol)/hyaluronic acid biocompatible patches obtained by electrospraying. Biomed Mater. 2018;13.
6. Marin MM, Kaya MGA, **Ficai A**, Ghica MV, Popa L, Tutuianu R. Collagen Hydrolysate-Based Ingestible Bioproducts for the Treatment of Gastric Disorders. Rev Rom Mater. 2018;48:121-6.
7. Grumezescu V, Negut I, Grumezescu AM, **Ficai A**, Dorcioman G, Socol G, et al. MAPLE fabricated coatings based on magnetite nanoparticles embedded into biopolymeric spheres resistant to microbial colonization. Appl Surf Sci. 2018;448:230-6.
8. Ficai D, Grumezescu V, Fufa OM, Popescu RC, Holban AM, **Ficai A**, et al. Antibiofilm Coatings Based on PLGA and Nanostructured Cefepime-Functionalized Magnetite. Nanomaterials-Basel. 2018;8.
9. Ficai D, Ardelean IL, Holban AM, Ditu LM, Gudovan D, Sonmez M, et al. Manufacturing nanostructured chitosan-based 2D sheets with prolonged antimicrobial activity. Rom J Morphol Embryo. 2018;59:517-25.
10. Burdusel AC, Gherasim O, Grumezescu AM, Mogoanta L, **Ficai A**, Andronescu E. Biomedical Applications of Silver Nanoparticles: An Up-to-Date Overview. Nanomaterials-Basel. 2018;8.

11. Ardelean IL, Gudovan D, Fikai D, **Fikai A**, Andronescu E, Albu-Kaya MG, et al. Collagen/hydroxyapatite bone grafts manufactured by homogeneous/heterogeneous 3D printing. *Mater Lett.* 2018;231:179-82.
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15. Pelin G, Pelin CE, Stefan A, Dinca I, Andronescu E, **Fikai A**, et al. Mechanical and Tribological Properties of Nanofilled Phenolic-Matrix Laminated Composites. *Mater Tehnol.* 2017;51:569-75.
16. Komur B, Ozturk ER, Ekren N, Inan AT, Gunduz O, Andronescu E, et al. Characterization of Cu/Ag/Eu/Hydroxyapatite Composites Produced by Wet Chemical Precipitation. *Acta Phys Pol A.* 2017; 131: 392-6.
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19. Fikai D, Sandulescu M, **Fikai A**, Andronescu E, Yetmez M, Agrali OB, et al. Drug Delivery Systems for Dental Applications. *Curr Org Chem.* 2017;21:64-73.
20. Ardelean IL, Stoencea LBN, Fikai D, **Fikai A**, Trusca R, Vasile BS, et al. Development of Stabilized Magnetite Nanoparticles for Medical Applications. *J Nanomater.* 2017
21. Yipel M, Ghica MV, Kaya MGA, Spoiala A, Radulescu M, Fikai D, et al. Multifunctional Materials for Cancer Therapy: From Antitumoral Agents to Innovative Administration. *Current Organic Chemistry* 2016; 20: 2934-48.
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28. Pica A, Guran C, Fikai D, **Fikai A**, Dumitru F. Acrylic polymer influence on the structure and morphology of AgNPs obtained by chemical method for antimicrobial applications. *J Coat Technol Res.* 2016; 13: 53-61.
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