



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
Telephone(s) +4 021 402 3852 Mobile +4 0766 257 852
Fax(es) +4 021 402 3815
E-mail anton.ficai@upb.ro
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 25 September 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 University Beira Interior
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)	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

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 Neîţescu 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 250 peer-reviewed published works (over 185 is indexed in ISI Web of Science); cumulative impact factor >300; Hirsh index 25 (ISI); No. of citations > 1750;
- 16 Books and Chapters of books;
- 3 patent issued by OSIM and 6 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-present) – ISI Indexed
- **Advanced Nano-Bio-Materials and Devices – SciEdTech – Editor in Chief**
- **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)
- **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. **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
2. **Action CA18132**; Functional Glyconanomaterials for the Development of Diagnostics and Targeted Therapeutic Probes; Role: Researcher/ **Responsible of UPB**; Period of implementation: 2018-2022
3. 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
4. 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
5. 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
6. 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
7. PN-III-P1-1.2-PCCDI-2017-0689; Lib2Life- Revitalizarea bibliotecilor și a patrimoniului cultural prin tehnologii avansate; Period of implementation: 2018-2020
8. 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;
9. Project JINR-RO 2018; Development and characterisation of magnetic nanostructures for targeted cancer therapy; Responsible UPB; Period of implementation: 2018;
10. 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;
11. 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
12. PN-III-P2-2. 1-PED-2016-0952 “Structuri poroase biomimetice obținute prin printare 3D pentru ingineria țesutului osos” Role: Researcher; Period of implementation: 2017-2018
13. **63/10. 04. 2017/IUCN DUBNA; Nanostructured magnetic colloids for targeted cancer therapy; Role: project manager; Period of implementation: 2017**
14. 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;
15. 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;
 16. 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;
 17. **POC-D; Prototip pentru validare nanotehnologie inovatoare și linie de producție (P_39_240), manager de proiect**
 18. 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;
 19. 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;
 20. **„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**
 21. 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;
 22. 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;
 23. 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;
 24. MPNS COST Action MP1301: New Generation Biomimetic and Customized Implants for Bone Engineering; Role: member of the Romania team; 2013-2017
 25. TD COST Action TD1305: Improved Protection of Medical Devices Against Infection (IPROMEDAI); Role: member of the Romania team; 2013-2017
 26. 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;
 27. **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;**
 28. 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;
 29. PNCDI II – CAPACITATI (Modulul II) Perspective Studies „NanoProspect”; Role: Researcher; Period of implementation: 2010-2011;
 30. 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;
 31. PNCDI II – Partnership: Multifunctional nanobiocomposites used as regenerative and drug delivery support–SIMAC; Ctr. Nr. 72_198; Role: Researcher; Period of implementation: 2008– 2011;
 32. 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;
 33. PNCDI II – Partnership: Miniaturized biosensor, micro technology, organophosphorous insecticides, acetylcholinesterase (AChE), acetylthiocholine (ACh) / Microtehnologia obtinerii de biosenzori miniaturizati pentru detectare

- rapida a contaminantilor din produse alimentare; Ctr. Nr. 52_173; Role: Researcher; Period of implementation: 2008 – 2011;
34. 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;
 35. **Proiect PN II_MC – Electric field influence on collagen mineralization process; Role: Project manager; Period of implementation: 2008;**
 36. 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;
 37. **PN II_TD – Collagen/Hydroxyapatite Composite Materials; Role: Project manager; Period of implementation: 2007 – 2009;**
 38. **PN II_BD – Composite Biomaterials based on Collagen and Hydroxyapatite; Role: Project manager; Period of implementation: 2006 – 2009;**
 39. 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;
 40. PNCDI I-CERES type PED/Hybrid membranar materials with polyphosphazenic backbone; Role: Researcher; Period of implementation: 2002- 2004.

Prizes and Awards: 2019: International Specialized Exhibition "INFOINVENT2019"- XVIth Edition, 20-23 November 2019, Chisinau, Republic of Moldova

„Antibiotic resistance in wastewater: Transmission risks for employees and residents around wastewater treatment plants - Rezistența la antibiotice în apele uzate: riscuri de transmisie pentru angajați și rezidenți în jurul stațiilor de tartare a apelor uzate” Authors Laura Ioana Popa, Ilda Czubor Barbu, Irina Gheorghe, Luminița Măruțescu, Marcela Popa, Ionela Sârbu, Grațiela Grădișteanu, Bianca Trușcă, Anton Ficaș, Dan Eduard Mihaiescu, Bogdan Purcarea, Oana Săndulescu, Anca Streinu Cercel, Dan Oțelea, Adrian Streinu Cercel, Violeta Corina Cristea, Mihai Nita Lazar, Alina Banciu, Veronica Lazăr, Mariana Carmen Chifiriuc

“Gold medal” awarded by International Jury of InfoInvent 2019

“Excellence diploma with special mention” awarded by State University of Medicine and Pharmacy „Nicolae Testemițanu”, Moldova

“Excellence diploma” awarded by University of Agronomic Science and Veterinary Medicine „King Mihai I of Romania”, Timișoara

Denisa FICAȘ, Ioana ARDELEAN, Cornelia ILIE, Manuela CĂLIN, Elena-Valeria FUIOR, Adrian FIFERE, Mariana PINTEALĂ, Gheorghe FUNDUEANU-CONSTANTIN, Anton FICAȘ, Maya SIMIONESCU, Ecaterina ANDRONESCU “Separator (electro)magnetic vertical a nanoparticulelor izomagnetice”, A 01055/05.12.2018 înregistrată la OSIM

“Gold medal” awarded by the International Jury of InfoInvent 2019

“Excellence diploma with gold medal” awarded by State University of Medicine and Pharmacy „Nicolae Testemițanu”, Moldova

“Polymer vesicles and tubes and technology of manufacturing / Vezicule și tuburi polimerice și tehnologie de obținere a acestora”, Denisa FICAȘ; Andreea ILIEV; Anton FICAȘ; Violeta Georgeta TRUSCĂ; Anca Violeta GAFENCU; Sanda-Maria BUCATARIU; Gheorghe FUNDUEANU-CONSTANTIN; Maya SIMIONESCU; Ecaterina ANDRONESCU

“Gold medal” awarded by the International Jury of InfoInvent 2019

“Gold medal” awarded by Technical University of Moldova

“Excellence diploma and Mechatron Group Trophy” awarded by Mecatronic & Cyber - MixMecatronic for Future Group

“Excellence diploma” awarded by State University of Medicine and Pharmacy „Nicolae Testemițanu”, Moldova

2019: 4th International Invention Innovation Competition in Canada – Ican 2019; August 23-24, Toronto, Canada

“Synthesis procedure of some multifunctional composite materials with potential applications in bone cancer treatment” authors: A FICAȘ, E

ANDRONESCU, C. D. GHITULICA, D. FICAI, Georgeta VOICU, G. M. ALBU

“**Gold medal**” awarded by the International Jury of ICan 2019

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

“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)

“**Gold medal**” awarded by the International Jury of ICan 2019

“**Special Prize and Excellence diploma**” awarded by the Moroccan Delegation

“**Certificate of Appreciation**” awarded by the International Jury of ICan2019 to Anton FICAI

2019: 11th European Exhibition of Creativity and Innovation-EuroInvent 2019, 16-18 May 2019, Iasi, Romania

“Polymer vesicles and tubes and technology of manufacturing / Vezicule și tuburi polimerice și tehnologie de obținere a acestora”, Denisa FICAI; Andreea ILIEV; Anton FICAI; Violeta Georgeta TRUSCA; Anca Violeta GAFENCU; Sanda-Maria BUCATARIU; Gheorghe FUNDUEANU-CONSTANTIN; Maya SIMIONESCU; Ecaterina ANDRONESCU- A 01054/05.12.2018

“**Gold medal and Excellence diploma**” awarded by the international Jury of Euroinvent 2019

Gold medal and Excellence diploma” awarded by “Carol Davila” University of Medicine and Pharmacy Bucharest

Excellence award and Gold medal and Excellence diploma” awarded by ICECHIM Bucharest

Gold medal and Excellence diploma, awarded by “Romanian Association of Pteridology, Bucharest

Special Prize awarded by “Alexandru Ioan Cuza” University of Iasi

“Vertical electromagnetic separator of the isomagnetic nanoparticles / Separator (electro)magnetic vertical a nanoparticulelor izomagnetice”, Denisa FICAI, Ioana ARDELEAN, Cornelia ILIE, Manuela CĂLIN, Elena-Valeria FUIOR, Adrian FIFERE, Mariana PINTEALĂ, Gheorghe FUNDUEANU-CONSTANTIN, Anton FICAI, Maya SIMIONESCU, Ecaterina ANDRONESCU; National patent application A 01055/05.12.2018

“**Gold medal and Excellence diploma**” awarded by the international Jury of Euroinvent 2019

Gold medal and Excellence diploma” awarded by NIRD URBAN-INCERC

2019: 23rd International Exhibition of Inventions – Inventica 2019, 26-18 June 2019, Iasi, Romania

„Antibiotic resistance in wastewater: Transmission risks for employees and residents around wastewater treatment plants - Rezistența la antibiotice în apele uzate: riscuri de transmisie pentru angajați și rezidenți în jurul stațiilor de tartare a apelor uzate” Authors Laura Ioana Popa, Ilda Czobor Barbu, Irina Gheorghe, Luminița Măruțescu, Marcela Popa, Ionela Sârbu, Grațiela Grădișteanu, Bianca Trușcă, Anton Ficăi, Dan Eduard Mihaiescu, Bogdan Purcarea, Oana Săndulescu, Anca Streinu Cercel, Dan Oșelea, Adrian Streinu Cercel, Violeta Corina Cristea, Mihai Nita Lazar, Alina Banciu, Veronica Lazăr, Mariana Carmen Chifiriuc

“**Diploma of Excellence**” awarded by International Jury of Inventica 2019

“Vertical electromagnetic separator of the isomagnetic nanoparticles / Separator (electro)magnetic vertical a nanoparticulelor izomagnetice”, Denisa FICAI, Ioana ARDELEAN, Cornelia ILIE, Manuela CĂLIN, Elena-Valeria FUIOR, Adrian FIFERE, Mariana PINTEALĂ, Gheorghe FUNDUEANU-CONSTANTIN, Anton FICAI, Maya SIMIONESCU, Ecaterina ANDRONESCU; National patent application A 01055/05.12.2018

“**Diploma of honour and Gold Medal**” awarded by the International Jury of Inventica 2019

“**Special Prize**” awarded by SodinExpo, Russia

“Polymer vesicles and tubes and technology of manufacturing / Vezicule și

tuburi polimerice și tehnologie de obținere a acestora”, Denisa FICAI; Andreea ILIEV; Anton FICAI; Violeta Georgeta TRUSCA; Anca Violeta GAFENCU; Sanda-Maria BUCATARIU; Gheorghe FUNDUEANU-CONSTANTIN; Maya SIMIONESCU; Ecaterina ANDRONESCU- A 01054/05.12.2018

“**Diploma of honour and Gold Medal**” awarded by the International Jury of Inventica 2019

“**Special Prize**” awarded by SodinExpo, Russia

“**Excellence diploma**” awarded by State University of Medicine and Pharmacy „Nicolae Testemițanu”, Moldova

Gold Medal Award for Excellence awarded to Anton FICAI; awarded by “Carol Davila” University of Medicine and Pharmacy, Bucharest

“**Gold medal and Excellence diploma**”, awarded by “Romanian Association of Pteridology, Bucharest to Anton FICAI

2019: International Salon for Scientific Research, Innovation and Inventions, “ProInvent”, 20-22 March 2019, Cluj Napoca, Romania

“Polymer vesicles and tubes and technology of manufacturing / Vezicule și tuburi polimerice și tehnologie de obținere a acestora”, Denisa FICAI; Andreea ILIEV; Anton FICAI; Violeta Georgeta TRUSCA; Anca Violeta GAFENCU; Sanda-Maria BUCATARIU; Gheorghe FUNDUEANU-CONSTANTIN; Maya SIMIONESCU; Ecaterina ANDRONESCU- A 01054/05.12.2018

Diplomă de excelență și medalia de aur awarded by the International Jury of ProInvent

“**Special Prize and Excellence diploma**” awarded by University of Agronomic Science and Veterinary Medicine, Bucharest

“**Excellence diploma and Gold medal**” awarded by Technical University of Moldova

“**Excellence diploma**” awarded by Iustin Capra Association

“Vertical electromagnetic separator of the isomagnetic nanoparticles / Separator (electro)magnetic vertical a nanoparticulelor izomagnetice”, Denisa FICAI, Ioana ARDELEAN, Cornelia ILIE, Manuela CĂLIN, Elena-Valeria FUIOR, Adrian FIFERE, Mariana PINTEALĂ, Gheorghe FUNDUEANU-CONSTANTIN, Anton FICAI, Maya SIMIONESCU, Ecaterina ANDRONESCU; National patent application A 01055/05.12.2018

“**Excellence diploma and Gold medal**” awarded by the International Jury of ProInvent

“**Special Prize and Excellence diploma**” awarded by University of Agronomic Science and Veterinary Medicine, Bucharest

“**Excellence diploma**” awarded by University of Agronomic Science and Veterinary Medicine, “King Mihai I of Romania”, Timisoara

“**Special Prize**” awarded by Romanian Association for Alternative Technologies – ARTA Sibiu

Special Award awarded by Corneliu Group; **Special Award** awarded by Romanian Association for Alternative Technologies;

“**Excellence diploma and INCDMTM Trophy**” awarded by INCDMTM

“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

“**Excellence diploma and Gold medal**” awarded by the International Jury of ProInvent

“**Special Prize and Excellence diploma**” awarded by University of Agronomic Science and Veterinary Medicine, Bucharest

“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)

“**Excellence diploma and Gold medal**” awarded by the International Jury of ProInvent

“**Special Prize and Excellence diploma**” awarded by University of Agronomic Science and Veterinary Medicine, Bucharest

“**Excellence diploma with special mention**” awarded by State University of

Medicine and Pharmacy „Nicolae Testemițanu”, Moldova

“Functionalized magnetic systems for environmental applications; Denisa FICAI, Ecaterina ANDRONESCU, Cornelia GURAN, Anton FICAI, A00164/2011 ”

“Excellence diploma and Gold medal” awarded by the International Jury of ProInvent

2019: IDEA-EXPO 2019 IDEA, Novelty, Invention, Art and Crafts International Exhibition and Fair, 06-07 April 2019, Szolnok, Hungary

“Functionalized magnetic systems for environmental applications; Denisa FICAI, Ecaterina ANDRONESCU, Cornelia GURAN, Anton FICAI, A00164/2011 ”

“Excellence diploma” awarded by the International Jury of IDEA

“Polymer vesicles and tubes and technology of manufacturing / Vezicule și tuburi polimerice și tehnologie de obținere a acestora”, Denisa FICAI; Andreea ILIEV; Anton FICAI; Violeta Georgeta TRUSCA; Anca Violeta GAFENCU; Sanda-Maria BUCATARIU; Gheorghe FUNDUEANU-CONSTANTIN; Maya SIMIONESCU; Ecaterina ANDRONESCU- A 01054/05.12.2018

“Excellence diploma” awarded by the International Jury of IDEA

“Vertical electromagnetic separator of the isomagnetic nanoparticles / Separator (electro)magnetic vertical a nanoparticulelor izomagnetice”, Denisa FICAI, Ioana ARDELEAN, Cornelia ILIE, Manuela CĂLIN, Elena-Valeria FUIOR, Adrian FIFERE, Mariana PINTEALĂ, Gheorghe FUNDUEANU-CONSTANTIN, Anton FICAI, Maya SIMIONESCU, Ecaterina ANDRONESCU; National patent application A 01055/05.12.2018

“Excellence diploma” awarded by the International Jury of IDEA

“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 the International Jury of IDEA

“Osteoconductive and osteoinductive bone grafts and process for their manufacturing” authors A. Ficai, E. Andronescu, M.G. Albu, D. Ficai, M. Sonmez

“Excellence diploma” awarded by the International Jury of IDEA

“Functionalized magnetic systems for environmental applications; Denisa Ficai, Ecaterina Andronescu, Cornelia Guran, Anton Ficai, A00164/2011 ”

“Excellence diploma” awarded by the International Jury of IDEA

2019: Bangkok International Intellectual Property, Invention, Innovation and Technology Exposition - Thailand Inventors' Day 2019" 2-6 February 2019

“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” awarded by the International Jury of IPITEX

“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)

“Gold medal” awarded by the International Jury of IPITEX

“Special Award” awarded by Advanced Tech Smart

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 Inventii 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. NEDELICU, 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 Testemițeanu”, 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. Fikai, E. Andronescu, M.G. Albu, D. Fikai, 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 Fikai, E Andronescu, C.D. Ghitulica, D. Fikai, 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 Fikai, E Andronescu, C.D. Ghitulica, D. Fikai, 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. Fikai, D. Fikai, M Sonmez, O Oprea, BS Vasile, S Manea, AM Pangica, P Bodoga, C Agapescu, C.D. Ghitulica, E Andronescu;

2018: 22th International Exhibition of Inventions - 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 Fikai, OR Duta, D Fikai, 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 Fikai, OR Duta, D Fikai, 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 Fikai, OR Duta, D Fikai, 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.);

2018: 10th European Exhibition of Creativity and Innovation-EuroInvent 2017, 17-19 may 2018, Iasi, Romania

“Gold Medal” 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;

“Silver 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);
 “Special Prize” awarded by Universitatea Tehnica a Moldovei (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);
- 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 8TH International Conference on Nanotechnology: Fundamentals and Applications - ICNFA'17 held at Rome, Italy for the paper Design of TiO_xN_y for coating technology, Anton Ficai, Denisa Ficai, 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 NEDELICU; 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. NEDELICU, 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: 9th 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 NEDELICU; 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 NEDELCU; 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 NEDELCU; 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: 8th 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: XXth 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: 44th 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: 7th 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 potential aplicativ 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 Neitzescu Days awarded by University POLITEHNICA of Bucharest– Faculty of Applied Chemistry and Materials Science

2004: Special Prize: Annual Session of Scientific Communications – CD Neitzescu 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 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: 2nd Biennial Oil, Gas and Petrochemical Conference (OGPC2018), Bushehr, Iran, 14 Nov 2018

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

2016: 6th 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 spectroscope and microscope, ICP-OES, ICP-MS, AAS

07. 04. 2020

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 NO₂ 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; Process for preparing composite multi-purpose materials with possible applicability in the treatment of bone cancer / Procedeu de obtinere a unor materiale compozite cu potientiale aplicatii în tratarea cancerului osos, Patent No. RO127725/30. 03. 2015 issued by OSIM; [RO127725B1](#);
2. Denisa Ficai, **Anton Ficai**, Cornelia Guran, Ecaterina Andronescu, Technology for obtaining functionalized magnetic systems / Tehnologie de obținere a unor sisteme magnetice funcționalizate pentru aplicații de mediu, No: A00164/2011; (RO127889 (A2); RO127889 (B1)).
3. Denisa FICAI, Ecaterina ANDRONESCU, Maria SONMEZ, **Anton FICAI**, Ovidiu OPREA, Bogdan Stefan VASILE, Multifunction systems of the magnetite/thioacids/Ag or Au type, to be employed in cancer diagnosis and guided treatment / Sisteme multifuncționale de tip magnetita/tioacizi/Ag sau Au, utilizate pentru diagnoza și tratamentul dirijat al cancerului, A/00238/2013 (RO129824 (A2); [RO129824B1](#));

4. **Anton FICAI**, Ecaterina ANDRONESCU, Madalina Georgiana ALBU; Denisa FICAI, Maria SONMEZ; Osteoinductive and osteoconductive bone grafts and process for preparing the same / Grefe osoase osteoinductive și osteoconductive și procedeu de obținere a acestora); OSIM A00239/23.03.2013; [RO129823B1](#);
5. Maria SONMEZ, Laurenția ALEXANDRESCU, Mihai GEORGESCU, Mihaela NITUICA, Denisa FICAI, **Anton FICAI**, Lidia AVADANEI; Layered composite based on polypropylene reinforced with treated glass fibre cloth / Compozit stratificat pe bază de polipropilenă armată cu țesătură din fibră de sticlă tratată; OSIM A/00793/27.10.2014; [RO131034B1](#);
6. SONMEZ Maria, NITUICA Mihaela, ALEXANDRESCU Laura, STELESCU Daniela Maria, GEORGESCU Mihai, FICAI Denisa, **FICAI Anton**, CONSTANTINESCU Doina, CONSTANTINESCU Murariu Bogdan; Hybrid composite materials based on polypropylene reinforced with silicon carbide whiskers and functionalized fiberglass, and process for preparing the same / 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; OSIM A/00613/06/09/2016; RO132437 (A2); [RO132437B1](#)

PATENT APPLICATIONS:

7. Ovidiu-Cristian OPREA, Anton FICAI, Denisa FICAI, Ludmila MOTELICA, Roxana TRUȘCĂ, Ecaterina ANDRONESCU; “Compoziții și procedeu de tratare a hârtiei, pergamentului sau altor suporturi ale înscrisurilor, pentru îndepărtarea agenților patogeni de tip fungi, mușcăi sau bacterii”; A00798 /27.11.2019
8. Ovidiu-Cristian OPREA, Anton FICAI, Denisa FICAI, Ludmila MOTELICA, Roxana TRUȘCĂ, Ecaterina ANDRONESCU; “Compoziții și procedeu de tartare a obiectelor din piele pentru conferirea activității antibacteriene și antifungice”; A00794 /27.11.2019
9. Coralia Bleotu; Laura Denisa Dragu; Lilia Matei; Carmen Cristina Diaconu; Mihaela Chivu-Economescu; Andrada Sabina Zurac; Ana Iulia Neagu; Laura Georgiana Necula; Alina Maria Holban; Lia-Mara Ditu; Mariana Carmen Chifiriuc; Veronica Lazar; Gradisteanu Gratiela; Ionela-Andreea Neacsu; Vladimir Lucian Ene; Ecaterina Andronescu; **Anton Ficai**; Cristina Balas; Cristina Ciobanu; Laurentiu Cezar Irimia; Stela Daniela Dragan. Procedeu de obținere a unor hidrogeluri compozite pe bază de colagen și nanoparticule de argint pentru prevenirea infecțiilor de plagă, Nr Inregistrare OSIM: A1009/29.11.2018
10. **Anton FICAI**, Geanina Silvana BANU, Denisa FICAI, Claudiu Virgil BANU, Nicolae COSTACHE, Procedeu de obținere a nanopulberilor, instalație pentru realizarea procedurii și nanopulberi astfel obținute, cerere de brevet națională înregistrată la OSIM cu nr. A/00415 din 12.06.2018.
11. **Anton FICAI**, Geanina Silvana BANU, Denisa FICAI, Claudiu Virgil BANU, Nicolae COSTACHE, Method for producing nanopowders, device for producing nanopowder thereof and nanopowders thus produced; European patent request EP18464005/10-12.2018
12. 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
13. 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
14. **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.
15. **Anton FICAI**, Denisa FICAI, Ovidiu OPREA, Ecaterina ANDRONESCU, Stefan MANEA, Anna-Maria PANGICĂ, Petru BODOGA, Ludmila MOTELICA; Innovative composition for dental application / Compoziție inovativă pentru aplicații dentare; Cerere Numar înregistrare OSIM: A00734/27. 09. 2017; RO133247A2
16. Alexandrescu Laurenția; FICAI Anton; GEORGESCU Mihai; SONMEZ Maria; TUDOROIU Ligian; Nanostructured polymer composite based on polyamide, polyethylene and functionalized carbon nanoparticles, meant for railway industry; RO133421A2-2019-06-28;
17. Albu Kaya Mădălina Georgiana; Baciu Constantin Cosmin; Ficai Anton; Ficai Denisa; Marin Maria Minodora; Popescu Gheorghe Ion; Albu Kaya Mădălina Georgiana; Baciu Constantin Cosmin; Ficai Anton; Ficai Denisa; Marin Maria Minodora; Popescu Gheorghe Ion; Compositions for coating synthetic polymer ligaments with collagen type I and process for preparing the same; RO201700754A-2017-09-27; RO133135A2
18. **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;
19. Chifiriuc Mariana Carmen; Ditu Lia Mara; Ficai Anton; Ficai Denisa; Grosu Elena; Rapa Maria; Ulinici Sorin Claudiu; Chifiriuc Mariana Carmen; Ditu Lia Mara; Ficai Anton; Ficai Denisa; Grosu Elena; Rapa Maria; Ulinici Sorin Claudiu; Tubular laminated prosthetic device with antimicrobial properties – Dispozitiv protetic tubular stratificat cu proprietati antimicrobiene; National Patent Application OSIM RO201500105A-2015-02-16; [RO131309A2](#)
20. **Anton FICAI**, Ecaterina ANDRONESCU, Maria SONMEZ, Denisa FICAI, Ioan Avram NEDELICU; Madalina Georgiana ALBU; Bone grafts based on collagen, calcium phosphate and zinc and process for preparing the same / Grefe osoase pe bază de colagen, fosfat de calciu și zinc și procedeu de obținere a acestora; OSIM A00240/23.03.2013.

PAPERS (SELECTION)

over 250 papers from which 194 indexed in ISI Web of Science; 30 as corresponding author; cumulated ISI factor >300; citations ~1300; Hirsh index 22 (ISI Thomson).

- [1] G. Fundueanu, M. Constantin, S. Bucatariu, A. Nicolescu, P. Ascenzi, L.G. Moise, L. Tudor, V.G. Trusca, A.V. Gafencu, D. Ficai, **A. Ficai**, E. Andronescu, Simple and dual cross-linked chitosan millicapsules as a particulate support for cell culture, *Int J Biol Macromol* 143 (2020) 200-212.
- [2] **A. Ficai**, Design and Performances of Medical Devices: From Bulk to Surface Modification, *Curr Med Chem* 27(10) (2020) 1579-1579.
- [3] O.C. Duta, A.M. Titu, A. Marin, **A. Ficai**, D. Ficai, E. Andronescu, Surface Modification of Poly(Vinylchloride) for Manufacturing Advanced Catheters, *Curr Med Chem* 27(10) (2020) 1616-1633.
- [4] I. Antoniac, F. Miculescu, C. Cotrut, **A. Ficai**, J.V. Rau, E. Grosu, A. Antoniac, C. Tecu, I. Cristescu, Controlling the Degradation Rate of Biodegradable Mg-Zn-Mn Alloys for Orthopedic Applications by Electrophoretic Deposition of Hydroxyapatite Coating, *Materials* 13(2) (2020).
- [5] M. Sonmez, D. Ficai, I.L. Ardelean, R. Trusca, L. Alexandrescu, D. Constantinescu, Z. Ghizdavet, O. Oprea, **A. Ficai**, E. Andronescu, Flax Fibres Fabric Surface Decoration with Nanoparticles-A Promising Tool for Developing Hybrid Reinforcing Agent of Thermoplastic Polymers, *Fiber Polym* 20(11) (2019) 2407-2415.
- [6] S. Sena, K.N. Sumeyra, G. Ulkugul, A. Sema, K. Betul, S.B. Muge, E.M. Sayip, U. Muhammet, K. Cevriye, M. Mahir, A.M. Titu, **A. Ficai**, D. Ficai, O. Gunduz, Controlled Release of Metformin Hydrochloride from Core-Shell Nanofibers with Fish Sarcoplasmic Protein, *Medicina-Lithuania* 55(10) (2019).
- [7] A.I. Nicoara, I.A. Neacsu, V.L. Ene, B.S. Vasile, **A. Ficai**, E. Andronescu, Hydroxyapatite/Carbon Based Biocomposite Scaffolds as Prospective Materials for Bone Tissue Engineering, *Univ Politeh Buchar* 81(4) (2019) 107-120.
- [8] I. Negut, A.I. Visan, C. Popescu, R. Cristescu, **A. Ficai**, A.M. Grumezescu, M.C. Chifiriuc, R.D. Boehm, D. Yamaleyeva, M. Taylor, R.J. Narayan, D.B. Chrisey, Successful Release of Voriconazole and Flavonoids from MAPLE Deposited Bioactive Surfaces, *Appl Sci-Basel* 9(4) (2019).
- [9] I.A. Neacsu, A.E. Melente, A.M. Holban, **A. Ficai**, L.M. Ditu, C.M. Kamerzan, B.M. Tihauan, A.I. Nicoara, E. Bezirozoglou, M.C. Chifiriuc, G.G. Pircalabioru, Novel hydrogels based on collagen and ZnO nanoparticles with antibacterial activity for improved wound dressings, *Rom Biotech Lett* 24(2) (2019) 317-323.
- [10] I.A. Neacsu, L.V. Arsenie, R. Trusca, I.L. Ardelean, N. Mihailescu, I.N. Mihailescu, C. Ristoscu, C. Bleotu, **A. Ficai**, E. Andronescu, Biomimetic Collagen/Zn²⁺-Substituted Calcium Phosphate Composite Coatings on Titanium Substrates as Prospective Bioactive Layer for Implants: A Comparative Study Spin Coating vs. MAPLE, *Nanomaterials-Basel* 9(5) (2019).
- [11] O. Ionescu, M.V. Ciocilteu, C.V. Manda, I.A. Neacsu, **A. Ficai**, E. Amzoiu, A.T. Stolica, O. Croitoru, J. Neamtu, Bone - Graft Delivery Systems of Type PLGA-gentamicin and Collagen - hydroxyapatite - gentamicine, *Mater Plast* 56(3) (2019) 534-537.
- [12] A.M. Grumezescu, A.E. Stoica, M.S. Dima-Balcescu, C. Chircov, S. Gharbia, C. Balta, M. Rosu, H. Herman, A.M. Holban, **A. Ficai**, B.S. Vasile, E. Andronescu, M.C. Chifiriuc, A. Hermenean, Electrospun Polyethylene Terephthalate Nanofibers Loaded with Silver Nanoparticles: Novel Approach in Anti-Infective Therapy, *J Clin Med* 8(7) (2019).
- [13] Z. Ghizdavet, A.C. Baci, **A. Ficai**, D.A. Tit, Correlations Composition-Processing-Properties for Tableware Ceramics. Part II: Influence of Grinding on Glaze Properties, *Rev Rom Mater* 49(4) (2019) 497-506.
- [14] D. Ficai, **A. Ficai**, New Challenges in Cancer Treatment, from Novel Agents to Innovative Administration, *Anti-Cancer Agent Me* 19(1) (2019) 4-5.
- [15] **A. Ficai**, Triggering Factors in Drug Delivery Devices, *Curr Pharm Design* 25(2) (2019) 107-108.
- [16] C. Duta, M. Maximov, R. Trusca, **A. Ficai**, D. Ficai, C.I. Ilie, L.M. Ditu, E. Andronescu, Advanced Drug-Eluting Poly (Vinyl Chloride) Surfaces Deposited by Spin Coating, *Medicina-Lithuania* 55(8) (2019).
- [17] A. Croitoru, O. Oprea, A. Nicoara, R. Trusca, M. Radu, I. Neacsu, D. Ficai, **A. Ficai**, E. Andronescu, Multifunctional Platforms Based on Graphene Oxide and Natural Products, *Medicina-Lithuania* 55(6) (2019).
- [18] A. Croitoru, D. Ficai, L. Craciun, **A. Ficai**, E. Andronescu, Evaluation and Exploitation of Bioactive Compounds of Walnut, *Juglans regia*, *Curr Pharm Design* 25(2) (2019) 119-131.
- [19] N. Beshchasma, A.Y.K. Ho, M. Saqib, H. Kraskiewicz, L. Wasyluk, O. Kuzmin, O.C. Duta, D. Ficai, R.D. Trusca, **A. Ficai**, V.F. Pichugin, J. Opitz, E. Andronescu, Surface evaluation of titanium oxynitride coatings used for developing layered cardiovascular stents, *Mat Sci Eng C-Mater* 99 (2019) 405-416.
- [20] L. Bandici, G.S. Banu, **A. Ficai**, D. Ficai, The Role of Susceptors in the Process of Obtaining Nanopowders Using Microwaves, 2019 15th International Conference on Engineering of Modern Electric Systems (Emes) (2019) 69-72.
- [21] L. Bandici, G.S. Banu, **A. Ficai**, D. Ficai, Obtaining SiO₂ Nanopowders Using Microwave Field Processing, 2019 15th International Conference on Engineering of Modern Electric Systems (Emes) (2019) 141-144.
- [22] I.L. Ardelean, D. Ficai, M. Sonmez, O. Oprea, G. Nechifor, E. Andronescu, **A. Ficai**, M.A. Titu, Hybrid Magnetic Nanostructures for Cancer Diagnosis and Therapy, *Anti-Cancer Agent Me* 19(1) (2019) 6-16.
- [23] E.D. Teodor, F. Gatea, **A. Ficai**, G.L. Radu, Functionalized Magnetic Nanostructures for Anticancer Therapy, *Curr Drug Targets* 19(3) (2018) 239-247.
- [24] M. Sonmez, D. Ficai, **A. Ficai**, O. Oprea, I.L. Ardelean, R. Trusca, Z. Ghizdavet, L. Alexandrescu, M. Nituica, M.D. Stelescu, M. Georgescu, D. Gurau, D. Constantinescu, THE INFLUENCE OF EVA AND PE-g-AM

COMPATIBILIZERS ON THE PROCESSABILITY, MECHANICAL AND STRUCTURAL PROPERTIES OF RECYCLED PET / HDPE MIX, Proceedings of the 7th International Conference on Advanced Materials and Systems (2018) 349-354.

- [25] M. Sonmez, D. Ficai, **A. Ficai**, O. Oprea, I.L. Ardelean, R. Trusca, L. Alexandrescu, M. Nituica, M.D. Stelescu, M. Georgescu, D. Gurau, Identifying the Optimum Method for Modifying the Zinc Oxide Surface in Order to Obtain a High Deposit Degree of the Functioning Agent, Proceedings of the 7th International Conference on Advanced Materials and Systems (2018) 153-158.
- [26] M. Sonmez, D. Ficai, **A. Ficai**, L. Alexandrescu, M. Georgescu, R. Trusca, D. Gurau, M.A. Titu, E. Andronescu, Applications of mesoporous silica in biosensing and controlled release of insulin, *Int J Pharmaceut* 549(1-2) (2018) 179-200.
- [27] M. Radulescu, S. Popescu, D. Ficai, M. Sonmez, O. Oprea, A. Spoiala, **A. Ficai**, E. Andronescu, Advances in Drug Delivery Systems, from 0 to 3D Superstructures, *Curr Drug Targets* 19(4) (2018) 393-405.
- [28] I. Negut, V. Grumezescu, **A. Ficai**, A.M. Grumezescu, A.M. Holban, R.C. Popescu, D. Savu, B.S. Vasile, G. Socol, MAPLE deposition of *Nigella sativa* functionalized Fe₃O₄ nanoparticles for antimicrobial coatings, *Appl Surf Sci* 455 (2018) 513-521.
- [29] E.C. Mutlu, **A. Ficai**, D. Ficai, A.B. Yildirim, M. Yildirim, F.N. Oktar, A. Demir, Chitosan/poly(ethylene glycol)/hyaluronic acid biocompatible patches obtained by electrospraying, *Biomed Mater* 13(5) (2018).
- [30] Y. Moukbil, F.N. Oktar, B. Ozbek, D. Ficai, **A. Ficai**, E. Andronescu, M.S. Eroglu, O. Gunduz, Biohydrogels for medical applications: A short review, *Org Commun* 11(3) (2018) 123-141.
- [31] M.M. Marin, M.G.A. Kaya, **A. Ficai**, M.V. Ghica, L. Popa, R. Tutuianu, Collagen Hydrolysate-Based Ingestible Bioproducts for the Treatment of Gastric Disorders, *Rev Rom Mater* 48(1) (2018) 121-126.
- [32] V. Grumezescu, I. Negut, A.M. Grumezescu, **A. Ficai**, G. Dorcioman, G. Socol, F. Iordache, R. Trusca, B.S. Vasile, A.M. Holban, MAPLE fabricated coatings based on magnetite nanoparticles embedded into biopolymeric spheres resistant to microbial colonization, *Appl Surf Sci* 448 (2018) 230-236.
- [33] D. Ficai, V. Grumezescu, O.M. Fufa, R.C. Popescu, A.M. Holban, **A. Ficai**, A.M. Grumezescu, L. Mogoanta, G.D. Mogosanu, E. Andronescu, Antibiofilm Coatings Based on PLGA and Nanostructured Cefepime-Functionalized Magnetite, *Nanomaterials-Basel* 8(9) (2018).
- [34] D. Ficai, I.L. Ardelean, A.M. Holban, L.M. Ditu, D. Gudovan, M. Sonmez, R. Trusca, A. Kaya, **A. Ficai**, E. Andronescu, Manufacturing nanostructured chitosan-based 2D sheets with prolonged antimicrobial activity, *Rom J Morphol Embryo* 59(2) (2018) 517-525.
- [35] **A. Ficai**, Foodborne Diseases Foreword, *Handb Food Bioeng* 15 (2018) Xvii-Xviii.
- [36] **A. Ficai**, Advances in Biotechnology for Food Industry Handbook of Food Bioengineering, Volume 14 Foreword, *Handb Food Bioeng* 14 (2018) Xvii-Xviii.
- [37] **A. Ficai**, Food Quality: Balancing Health and Disease Handbook of Food Bioengineering, Volume 13 Foreword, *Handb Food Bioeng* 13 (2018) Xv-Xvi.
- [38] **A. Ficai**, Biopolymers for Food Design Handbook of Food Bioengineering, Volume 20 Foreword, *Handb Food Bioeng* 20 (2018) Xv-Xvi.
- [39] **A. Ficai**, Food Processing for Increased Quality and Consumption Handbook of Food Bioengineering, Volume 18 Foreword, *Handb Food Bioeng* 18 (2018) Xvii-Xviii.
- [40] **A. Ficai**, Alternative and Replacement Foods Handbook of Food Bioengineering, Volume 17 Foreword, *Handb Food Bioeng* 17 (2018) Xvii-Xviii.
- [41] **A. Ficai**, Genetically Engineered Foods Handbook of Food Bioengineering, Volume 6 Foreword, *Handb Food Bioeng* 6 (2018) Xvii-Xviii.
- [42] **A. Ficai**, Therapeutic Foods Foreword, *Handb Food Bioeng* 8 (2018) Xvii-Xviii.
- [43] **A. Ficai**, Natural and Artificial Flavoring Agents and Food Dyes Foreword, *Handb Food Bioeng* 7 (2018) Xv-Xvi.
- [44] **A. Ficai**, Smart Drug Delivery Systems (Part 2), *Curr Drug Targets* 19(4) (2018) 299-299.
- [45] **A. Ficai**, Smart Drug Delivery Systems (Part 1), *Curr Drug Targets* 19(3) (2018) 201-201.
- [46] A.C. Burdusel, O. Gherasim, A.M. Grumezescu, L. Mogoanta, **A. Ficai**, E. Andronescu, Biomedical Applications of Silver Nanoparticles: An Up-to-Date Overview, *Nanomaterials-Basel* 8(9) (2018).
- [47] M.O. Aydogdu, A.E. Oprea, R. Trusca, A.V. Surdu, **A. Ficai**, A.M. Holban, F. Iordache, A.V. Paduraru, D.G. Filip, E. Altun, N. Ekren, F.N. Oktar, O. Gunduz, Production and Characterization of Antimicrobial Electrospun Nanofibers Containing Polyurethane, Zirconium Oxide and Zeolite, *Bionanoscience* 8(1) (2018) 154-165.
- [48] I.L. Ardelean, D. Gudovan, D. Ficai, **A. Ficai**, E. Andronescu, M.G. Albu-Kaya, P. Neacsu, R.N. Ion, A. Cimpean, V. Mitran, Collagen/hydroxyapatite bone grafts manufactured by homogeneous/heterogeneous 3D printing, *Mater Lett* 231 (2018) 179-182.
- [49] I.L. Ardelean, D. Ficai, **A. Ficai**, G. Nechifor, D. Dragu, C. Bleotu, Synthesis and Characterization of New Magnetite Nanoparticles by Using the Different Amino Acids Such as Stabilizing Agents, *Univ Politeh Buchar* 80(1) (2018) 33-46.
- [50] L. Alexandrescu, M. Sonmez, M. Georgescu, **A. Ficai**, R. Trusca, D. Gurau, L. Tudoroiu, Polyamide/Polypropylene/Graphite Nanocomposites with Functional Compatibilizers, Proceedings of the 7th International Conference on Advanced Materials and Systems (2018) 27-32.
- [51] M. Yetmez, Z.E. Erkmen, C. Kalkandelen, **A. Ficai**, F.N. Oktar, Sintering effects of mullite-doping on mechanical properties of bovine hydroxyapatite, *Mat Sci Eng C-Mater* 77 (2017) 470-475.

- [52] A. Telcian, M.D. Hussien, M.C. Chifiriuc, C. Bleotu, A.M. Holban, C. Curutiu, E. Grosu, **A. Ficai**, G. Mihaescu, R. Grigore, L.M. Ditu, Assessment of the anti-biofilm activity and biocompatibility of novel PE and PVC polymers, *Rom Biotech Lett* 22(5) (2017) 12997-13004.
- [53] O.R. Sava, D.F. Sava, M. Radulescu, M.G. Albu, D. Ficai, M.F. Veloz-Castillo, M.A. Mendez-Rojas, **A. Ficai**, Trends in Materials Science for Ligament Reconstruction, *Curr Stem Cell Res T* 12(2) (2017) 145-154.
- [54] G. Pelin, C.E. Pelin, A. Stefan, I. Dinca, E. Andronescu, **A. Ficai**, R. Trusca, Mechanical and Tribological Properties of Nanofilled Phenolic-Matrix Laminated Composites, *Mater Tehnol* 51(4) (2017) 569-575.
- [55] I.I. Lungu, A.M. Holban, **A. Ficai**, A.M. Grumezescu, Zinc Oxide Nanostructures: New Trends in Antimicrobial Therapy, *Nano Str Med* (2017) 503-514.
- [56] B. Komur, E.R. Ozturk, N. Ekren, A.T. Inan, O. Gunduz, E. Andronescu, **A. Ficai**, F.N. Oktar, Characterization of Cu/Ag/Eu/Hydroxyapatite Composites Produced by Wet Chemical Precipitation, *Acta Phys Pol A* 131(3) (2017) 392-396.
- [57] A.T. Inan, B. Komur, N. Ekren, M.O. Aydogdu, H. Gokce, **A. Ficai**, S. Salman, F.N. Oktar, O. Gunduz, Physical Characterization of Turbot (Psetta Maxima) Originated Natural Hydroxyapatite, *Acta Phys Pol A* 131(3) (2017) 397-399.
- [58] A.M. Grumezescu, **A. Ficai**, D. Ficai, A.M. Holban, B.S. Vasile, E. Andronescu, Biomaterials based on functional graphene oxide and natural compounds with improved biocompatibility, biodistribution and low immunomodulatory effects, *Febs J* 284 (2017) 328-328.
- [59] D. Ficai, M. Sandulescu, **A. Ficai**, E. Andronescu, M. Yetmez, O.B. Agrali, E. Elemek, O. Gunduz, Y.M. Sahin, F.N. Oktar, Drug Delivery Systems for Dental Applications, *Curr Org Chem* 21(1) (2017) 64-73.
- [60] D. Ficai, **A. Ficai**, A. Melinescu, E. Andronescu, Nanotechnology: A Challenge in Hard Tissue Engineering with Emphasis on Bone Cancer Therapy, *Nano Str Med* (2017) 513-539.
- [61] D. Ficai, **A. Ficai**, E. Andronescu, Recent Advances in Using Magnetic Materials for Environmental Applications, *Nanotech Agrifood* 9 (2017) 1-32.
- [62] D. Ficai, **A. Ficai**, Prevention of biofilm formation by material modification, *Woodh Publ Ser Biom* (2017) 159-180.
- [63] **A. Ficai**, A.M. Grumezescu, Nanostructures for Antimicrobial Therapy Nanostructures in Therapeutic Medicine Series Preface, *Nano Str Med* (2017) Xxiii-Xxv.
- [64] **A. Ficai**, Microbial Production of Food Ingredients and Additives Foreword, *Handb Food Bioeng* 5 (2017) Xv-Xvi.
- [65] **A. Ficai**, Food Biosynthesis Handbook of Food Bioengineering, Volume 1 Foreword, *Food Biosynthesis, Vol 1* (2017) Xv-Xvi.
- [66] **A. Ficai**, Food Bioconversion Handbook of Food Bioengineering, Volume 2 Foreword, *Handb Food Bioeng* 2 (2017) Xv-Xvi.
- [67] **A. Ficai**, Soft Chemistry and Food Fermentation Foreword, *Handb Food Bioeng* 3 (2017) Xv-Xvi.
- [68] **A. Ficai**, Ingredients Extraction by Physicochemical Methods in Food Handbook of Food Bioengineering, Volume 4 Foreword, *Handb Food Bioeng* 4 (2017) Xv-Xvi.
- [69] I.L. Ardelean, L.B.N. Stoenea, D. Ficai, **A. Ficai**, R. Trusca, B.S. Vasile, G. Nechifor, E. Andronescu, Development of Stabilized Magnetite Nanoparticles for Medical Applications, *J Nanomater* (2017).
- [70] L. Alexandrescu, M. Sonmez, M. Georgescu, M. Nituica, **A. Ficai**, R. Trusca, D. Gurau, L. Tudoroiu, Polyamide/Polypropylene/graphene oxide nanocomposites with functional compatibilizers: Morpho-structural and physicomechanical characterization, *Procedia Struct Inte* 5 (2017) 675-682.
- [71] L. Alexandrescu, M. Sonmez, M. Georgescu, M. Nituica, **A. Ficai**, R. Trusca, D. Gurau, Polymer nanocomposites PE/PE-g-MA/EPDM/nanoZnO and TiO₂ dynamically crosslinked with sulphur and accelerators, *Procedia Struct Inte* 5 (2017) 667-674.
- [72] M. Yipel, M.V. Ghica, M.G.A. Kaya, A. Spoiala, M. Radulescu, D. Ficai, **A. Ficai**, C. Bleotu, N. Cornelia, Multifunctional Materials for Cancer Therapy: From Antitumoral Agents to Innovative Administration, *Curr Org Chem* 20(28) (2016) 2934-2948.
- [73] M. Sotnmez, **A. Ficai**, D. Ficai, R. Trusca, E. Andronescu, Alginate/Cellulose Composite Beads for Environmental Applications, *Univ Politeh Buchar* 78(2) (2016) 165-176.
- [74] M. Sonmez, C. Verisan, G. Voicu, D. Ficai, **A. Ficai**, A.E. Oprea, M. Vlad, E. Andronescu, Extended release of vitamins from magnetite loaded polyanionic polymeric beads, *Int J Pharmaceut* 510(2) (2016) 457-464.
- [75] S. Popescu, I.L. Ardelean, D. Gudovan, M. Radulescu, D. Ficai, **A. Ficai**, B.S. Vasile, E. Andronescu, Multifunctional materials such as MCM-41/Fe₃O₄/folic acid as drug delivery system, *Rom J Morphol Embryo* 57(2) (2016) 483-489.
- [76] A. Pica, C. Guran, D. Ficai, **A. Ficai**, F. Dumitru, Acrylic polymer influence on the structure and morphology of AgNPs obtained by chemical method for antimicrobial applications, *J Coat Technol Res* 13(1) (2016) 53-61.
- [77] A. Pica, D. Ficai, **A. Ficai**, C. Guran, F. Dumitru, M. Pica, Studies on morphological and structural stability of some antimicrobial film-forming materials, in time, *J Optoelectron Adv M* 18(1-2) (2016) 179-184.
- [78] A. Pica, **A. Ficai**, A New Generation of Antibacterial Film Forming Materials, *Rev Chim-Bucharest* 67(1) (2016) 34-37.
- [79] G. Pelin, C.E. Pelin, A. Stefan, I. Dinca, **A. Ficai**, E. Andronescu, R. Trusca, Influence of nanometric silicon carbide on phenolic resin composites properties, *B Mater Sci* 39(3) (2016) 769-775.
- [80] G. Pelin, E. Andronescu, C.E. Pelin, O. Oprea, **A. Ficai**, Ablative Type Composites Based on Phenolic Resin/Nano-Silicon Carbide Matrix Reinforced by Carbon Fiber Felt, *Rev Rom Mater* 46(4) (2016) 444-452.

- [81] C.E. Pelin, G. Pelin, A. Stefan, E. Andronescu, I. Dinca, **A. Ficai**, R. Trusca, Mechanical Properties of Polyamide/Carbon-Fiber-Fabric Composites, *Mater Tehnol* 50(5) (2016) 723-728.
- [82] C.E. Pelin, G. Pelin, E. Andronescu, **A. Ficai**, A. Stefan, R. Trusca, E. Vasile, Effect of Layered Silicates on Mechanical Properties of Carbon Fiber Fabric Epoxy Laminated Composites, *Univ Politeh Buchar* 78(1) (2016) 27-38.
- [83] G. Paunica-Panea, **A. Ficai**, M.M. Marin, S. Marin, M.G. Albu, V.D. Constantin, C. Dinu-Pirvu, Z. Vuluga, M.C. Corobea, M.V. Ghica, New Collagen-Dextran-Zinc Oxide Composites for Wound Dressing, *J Nanomater* (2016).
- [84] D.E. Mihaiescu, D. Gudovan, V. Traistaru, P. Ionescu, A. Fudulu, G. Voicu, **A. Ficai**, R. Trusca, D. Istrati, A. Marton, S.A. Buteica, B. Vasile, E. Andronescu, Synthesis of Silver Secondary Shell Magnetic Nanoparticles, *Rev Roum Chim* 61(2) (2016) 105-+.
- [85] B. Komur, T. Lohse, H.M. Can, G. Khalilova, Z.N. Gecimli, M.O. Aydogdu, C. Kalkandelen, G.E. Stan, Y.M. Sahin, A.Z. Sengil, M. Suleymanoglu, S.E. Kuruca, F.N. Oktar, S. Salman, N. Ekren, **A. Ficai**, O. Gunduz, Fabrication of naturel pumice/hydroxyapatite composite for biomedical engineering, *Biomed Eng Online* 15 (2016).
- [86] A. Ilie, C. Ghitulica, E. Andronescu, A. Cucuruz, **A. Ficai**, New composite materials based on alginate and hydroxyapatite as potential carriers for ascorbic acid, *Int J Pharmaceut* 510(2) (2016) 501-507.
- [87] A.M. Holban, M. Vlad, V. Grumezescu, **A. Ficai**, C. Bleotu, I.M. Aldea, A.M. Grumezescu, E. Andronescu, Impact of Alginate on the Biocompatibility of Magnetite Nanoparticles Utilized for Drug Delivery, *Univ Politeh Buchar* 78(4) (2016) 41-52.
- [88] A.M. Holban, V. Grumezescu, **A. Ficai**, A.M. Grumezescu, M.C. Chifiriuc, F. Iordache, E. Andronescu, Highly Biocompatible Magnetite Nanoparticles Functionalized with Chitosan for Improving the Efficiency of Antibiotics, *Univ Politeh Buchar* 78(3) (2016) 47-58.
- [89] **A. Ficai**, D. Ficai, E. Andronescu, M. Yetmez, N. Ozkalayci, O.B. Agrali, Y.M. Sahin, O. Gunduz, F.N. Oktar, Nanotechnology in dentistry, *Nanobiomaterials in Dentistry: Applications of Nanobiomaterials*, Vol 11 (2016) 187-210.
- [90] A.T. Cucuruz, E. Andronescu, **A. Ficai**, A. Ilie, F. Iordache, Synthesis and characterization of new composite materials based on poly(methacrylic acid) and hydroxyapatite with applications in dentistry, *Int J Pharmaceut* 510(2) (2016) 516-523.
- [91] M. Colie, D. Mihaiescu, A. Surdu, R. Trusca, B. Vasile, D. Istrati, **A. Ficai**, C. Plapcianu, E. Andronescu, High temperature superconducting materials based on Graphene / YBCO nanocomposite, *Mater Today-Proc* 3(8) (2016) 2628-2634.
- [92] M. Colie, D. Mihaiescu, A. Surdu, **A. Ficai**, D. Istrati, E. Andronescu, SYNTHESIS OF YBa₂Cu₃O₇-delta BY A MODIFIED AUTOCOMBUSTION METHOD, *Rev Rom Mater* 46(3) (2016) 369-374.
- [93] C.E. Ban, A. Stefan, I. Dinca, G. Pelin, **A. Ficai**, E. Andronescu, O. Oprea, G. Voicu, Multi-Walled Carbon Nanotubes Effect in Polypropylene Nanocomposites, *Mater Tehnol* 50(1) (2016) 11-16.
- [94] G. Unsoy, U. Gunduz, O. Oprea, D. Ficai, M. Sonmez, M. Radulescu, M. Alexie, **A. Ficai**, Magnetite: From Synthesis to Applications, *Curr Top Med Chem* 15(16) (2015) 1622-1640.
- [95] A. Spoiala, G. Voicu, D. Ficai, C. Ungureanu, M.G. Albu, B.S. Vasile, **A. Ficai**, E. Andronescu, COLLAGEN/TiO₂-Ag COMPOSITE NANOMATERIALS FOR ANTIMICROBIAL APPLICATIONS, *Univ Politeh Buchar* 77(4) (2015) 275-290.
- [96] M. Sonmez, D. Gudovan, R. Trusca, **A. Ficai**, D. Ficai, E. Andronescu, B.S. Vasile, SYNTHESIS, CHARACTERIZATION AND TESTING OF MCM-41/TiO₂ CATALYST FOR ORGANIC DYE DEGRADATION, *Dig J Nanomater Bios* 10(4) (2015) 1329-1341.
- [97] M. Sonmez, M. Georgescu, M. Valsan, M. Radulescu, D. Ficai, G. Voicu, **A. Ficai**, L. Alexandrescu, Design and characterization of polypropylene matrix/glass fibers composite materials, *J Appl Polym Sci* 132(26) (2015).
- [98] M. Sonmez, M. Georgescu, L. Alexandrescu, D. Gurau, **A. Ficai**, D. Ficai, E. Andronescu, Synthesis and Applications of Fe₃O₄/SiO₂ Core-Shell Materials, *Curr Pharm Design* 21(37) (2015) 5324-5335.
- [99] L.C. Rusu, I.A. Nedelcu, M.G. Albu, M. Sonmez, G. Voicu, M. Radulescu, D. Ficai, **A. Ficai**, M.L. Negrutiu, C. Sinescu, Tetracycline Loaded Collagen/Hydroxyapatite Composite Materials for Biomedical Applications, *J Nanomater* (2015).
- [100] M. Radulescu, D. Ficai, O. Oprea, **A. Ficai**, E. Andronescu, A.M. Holban, Antimicrobial Chitosan based Formulations with Impact on Different Biomedical Applications, *Curr Pharm Biotechno* 16(2) (2015) 128-136.
- [101] A. Pica, M. Pica, D. Ficai, **A. Ficai**, D. Florica, Incorporation of Silver Nanoparticles in Film Forming Materials for Long Term Antimicrobial Action, *Curr Nanosci* 11(6) (2015) 760-769.
- [102] A. Pica, **A. Ficai**, D. Ficai, C. Guran, F. Dumitru, Polymeric Films and Coatings for Antimicrobial Applications, *Univ Politeh Buchar* 77(3) (2015) 115-130.
- [103] C.E. Pelin, A. Stefan, I. Dinca, **A. Ficai**, G. Pelin, E. Andronescu, D. Constantinescu, G. Voicu, Polyamide 6/carbon fiber laminated composites, *J Optoelectron Adv M* 17(5-6) (2015) 750-756.
- [104] J.M. Patrascu, I.A. Nedelcu, M. Sonmez, D. Ficai, **A. Ficai**, B.S. Vasile, C. Ungureanu, M.G. Albu, B. Andor, E. Andronescu, L.C. Rusu, Composite Scaffolds Based on Silver Nanoparticles for Biomedical Applications, *J Nanomater* (2015).
- [105] F.N. Oktar, M. Yetmez, D. Ficai, **A. Ficai**, F. Dumitru, A. Pica, Molecular Mechanism and Targets of the Antimicrobial Activity of Metal Nanoparticles, *Curr Top Med Chem* 15(16) (2015) 1583-1588.

- [106] C. Nitipir, M.G. Albu, G. Voicu, **A. Ficai**, M.A. Barbu, L.G. Popa, D. Mirea, S. Lazar, C. Levai, M.V. Ghica, Collagen - vinblastine Delivery Systems as a New Treatment for Kaposi's Sarcoma, *Rev Chim-Bucharest* 66(8) (2015) 1169-1172.
- [107] I.A. Nedelcu, **A. Ficai**, D. Ficai, G. Voicu, M.G. Albu, E. Andronescu, Hybrid Collagen-Carboxy-Methylcellulose/Hydroxyapatite Composite Materials for Bone Tissue Regeneration, *Univ Politeh Buchar* 77(1) (2015) 3-14.
- [108] F. Iordache, V. Grumezescu, A.M. Grumezescu, C. Curutu, L.M. Ditu, G. Socol, **A. Ficai**, R. Trusca, A.M. Holban, Gamma-cyclodextrin/usnic acid thin film fabricated by MAPLE for improving the resistance of medical surfaces to *Staphylococcus aureus* colonization, *Appl Surf Sci* 336 (2015) 407-412.
- [109] O. Gunduz, M. Yetmez, M. Sonmez, M. Georgescu, L. Alexandrescu, **A. Ficai**, D. Ficai, E. Andronescu, Mesoporous Materials Used in Medicine and Environmental Applications, *Curr Top Med Chem* 15(15) (2015) 1501-1515.
- [110] V. Grumezescu, E. Andronescu, A.M. Holban, G. Socol, A.M. Grumezescu, **A. Ficai**, V. Lazar, M.C. Chifiriuc, R. Trusca, F. Iordache, Fabrication and characterization of functionalized surfaces with 3-amino propyltrimethoxysilane films for anti-infective therapy applications, *Appl Surf Sci* 336 (2015) 401-406.
- [111] A.M. Grumezescu, R. Cristescu, M.C. Chifiriuc, G. Dorcioman, G. Socol, I.N. Mihailescu, D.E. Mihaiescu, **A. Ficai**, O.R. Vasile, M. Enculescu, D.B. Chrisey, Fabrication of magnetite-based core-shell coated nanoparticles with antibacterial properties, *Biofabrication* 7(1) (2015).
- [112] E. Grosu, **A. Ficai**, M. Rapa, C. Zaharia, C. Chifiriuc, S. Ulinici, L. Jecu, Plastified polyvinyl chloride for antimicrobial medical device applications, *J Optoelectron Adv M* 17(7-8) (2015) 1139-1145.
- [113] M.V. Ghica, **A. Ficai**, S. Marin, M. Marin, A.M. Ene, J.M. Patrascu, Collagen/Bioactive Glass Ceramic/Doxycycline Composites for Bone Defects, *Rev Rom Mater* 45(4) (2015) 307-314.
- [114] D. Ficai, M. Sonmez, M.G. Albu, D.E. Mihaiescu, **A. Ficai**, C. Bleotu, Antitumoral materials with regenerative function obtained using a layer-by-layer technique, *Drug Des Dev Ther* 9 (2015) 1269-1279.
- [115] D. Ficai, **A. Ficai**, E. Dinu, O. Oprea, M. Sonmez, M.K. Keler, Y.M. Sahin, N. Ekren, A.T. Inan, S. Daglilar, O. Gunduz, Magnetic Core Shell Structures: From 0D to 1D Assembling, *Curr Pharm Design* 21(37) (2015) 5301-5311.
- [116] D. Ficai, **A. Ficai**, E. Andronescu, Advances in Cancer Treatment: Role of Nanoparticles, *Nanomaterials - Toxicity and Risk Assessment* (2015) 1-21.
- [117] **A. Ficai**, Engineered Magnetic Core@Shell Structures, *Curr Pharm Design* 21(37) (2015) 5299-5300.
- [118] C.V. Denis, A. Carap, B. Socea, **A. Ficai**, M.G. Albu, G. Paunica-Panea, Influenta Plaselor Textile Sintetice Asupra Reconstructiei Chirurgicale a Defectelor Peretelui Abdominal the Influence of Synthetic Material Meshes on the Surgical Repair of the Abdominal Wall Defects, *Rev Rom Mater* 45(3) (2015) 290-297.
- [119] M. Colie, D.E. Mihaiescu, A. Surdu, **A. Ficai**, R. Trusca, D. Istrati, E. Andronescu, OBTAINING YBa₂Cu₃O_{7-delta} THROUGH A MODIFIED AUTO-COMBUSTION REACTION WITH AND WITHOUT ADDITION OF ORGANIC FUEL, *Rev Roum Chim* 60(11-12) (2015) 1117-1123.
- [120] A. Bolocan, D.E. Mihaiescu, E. Andronescu, G. Voicu, A.M. Grumezescu, **A. Ficai**, B.S. Vasile, C. Bleotu, M.C. Chifiriuc, C.S. Pop, Biocompatible hydrodispersible magnetite nanoparticles used as antibiotic drug carriers, *Rom J Morphol Embryo* 56(2) (2015) 365-370.
- [121] M. Vlad, E. Andronescu, A.M. Grumezescu, **A. Ficai**, G. Voicu, C. Bleotu, M.C. Chifiriuc, Carboxymethyl-cellulose/Fe₃O₄ nanostructures for antimicrobial substances delivery, *Bio-Med Mater Eng* 24(3) (2014) 1639-1646.
- [122] B.S. Vasile, O. Oprea, G. Voicu, **A. Ficai**, E. Andronescu, A. Teodorescu, A. Holban, Synthesis and characterization of a novel controlled release zinc oxide/gentamicin-chitosan composite with potential applications in wounds care, *Int J Pharmaceut* 463(2) (2014) 161-169.
- [123] F. Vaja, O. Oprea, D. Ficai, **A. Ficai**, C. Guran, SYNTHESIS OF CeO₂ NANOPARTICLES ON THE MESOPOROUS SILICA SUPPORT VIA NANOCASTING, *Dig J Nanomater Bios* 9(1) (2014) 187-195.
- [124] A. Spoiala, M.G. Albu, **A. Ficai**, E. Andronescu, G. Voicu, C. Ungureanu, THE SiO₂/ZnO COMPOSITE MATERIALS FOR COSMETIC CREAMS, *Dig J Nanomater Bios* 9(4) (2014) 1729-1737.
- [125] M. Sonmez, D. Ficai, **A. Ficai**, L. Alexandrescu, G. Voicu, E. Andronescu, Functionalization of Glass Fibers for Obtaining Polypropylene Based Composite Materials, *Rev Rom Mater* 44(1) (2014) 88-94.
- [126] Y.M. Sahin, M. Yetmez, F.N. Oktar, O. Gunduz, S. Agathopoulos, E. Andronescu, D. Ficai, M. Sonmez, **A. Ficai**, Nanostructured Biomaterials with Antimicrobial Properties, *Curr Med Chem* 21(29) (2014) 3391-3404.
- [127] O. Oprea, E. Andronescu, D. Ficai, **A. Ficai**, F.N. Oktar, M. Yetmez, ZnO Applications and Challenges, *Curr Org Chem* 18(2) (2014) 192-203.
- [128] I.A. Nedelcu, **A. Ficai**, M. Sonmez, D. Ficai, O. Oprea, E. Andronescu, Silver Based Materials for Biomedical Applications, *Curr Org Chem* 18(2) (2014) 173-184.
- [129] D.E. Mihaiescu, D. Gudovan, E. Andronescu, **A. Ficai**, Controlled Release Study of Aztreonam from Mcm-41 Mesoporous Material, *Dig J Nanomater Bios* 9(1) (2014) 379-383.
- [130] C. Marques, J.M.F. Ferreira, E. Andronescu, D. Ficai, M. Sonmez, **A. Ficai**, Multifunctional materials for bone cancer treatment, *Int J Nanomed* 9 (2014) 2713-2725.
- [131] R.I. Iliescu, E. Andronescu, C.D. Ghitulica, G. Voicu, **A. Ficai**, M. Hotetueu, Montmorillonite-alginate nanocomposite as a drug delivery system incorporation and in vitro release of irinotecan, *Int J Pharmaceut* 463(2) (2014) 184-192.

- [132] V. Grumezescu, G. Socol, A.M. Grumezescu, A.M. Holban, **A. Ficai**, R. Trusca, C. Bleotu, P.C. Balaure, R. Cristescu, M.C. Chifiriuc, Functionalized antibiofilm thin coatings based on PLA-PVA microspheres loaded with usnic acid natural compounds fabricated by MAPLE, *Appl Surf Sci* 302 (2014) 262-267.
- [133] V. Grumezescu, A.M. Holban, F. Iordache, G. Socol, G.D. Mogosanu, A.M. Grumezescu, **A. Ficai**, B.S. Vasile, R. Trusca, M.C. Chifiriuc, H. Maniu, MAPLE fabricated magnetite@eugenol and (3-hydroxybutyric acid-co-3-hydroxyvaleric acid)-polyvinyl alcohol microspheres coated surfaces with anti-microbial properties, *Appl Surf Sci* 306 (2014) 16-22.
- [134] V. Grumezescu, A.M. Holban, A.M. Grumezescu, G. Socol, **A. Ficai**, B.S. Vasile, R. Trusca, C. Bleotu, V. Lazar, C.M. Chifiriuc, G.D. Mogosanu, Usnic acid-loaded biocompatible magnetic PLGA-PVA microsphere thin films fabricated by MAPLE with increased resistance to staphylococcal colonization, *Biofabrication* 6(3) (2014).
- [135] A.M. Grumezescu, C.D. Ghitulica, G. Voicu, K.S. Huang, C.H. Yang, **A. Ficai**, B.S. Vasile, V. Grumezescu, C. Bleotu, M.C. Chifiriuc, New silica nanostructure for the improved delivery of topical antibiotics used in the treatment of staphylococcal cutaneous infections, *Int J Pharmaceut* 463(2) (2014) 170-176.
- [136] A.M. Grumezescu, E. Andronescu, V. Grumezescu, **A. Ficai**, G. Socol, F. Iordache, A.M. Holban, Novel nano-coating surfaces based on hydrophobic polymers and phytostructures prepared by MAPLE with increased resistance to microbial colonization, *Febs J* 281 (2014) 665-665.
- [137] M.G. Florea, I.A. Nedelcu, C. Ungureanu, **A. Ficai**, D. Ficai, C. Guran, E. Andronescu, Alginate and Sulfanilamide Based DDS with Antibacterial Activity, *Int J Polym Mater Po* 63(2) (2014) 92-96.
- [138] D. Ficai, O. Oprea, **A. Ficai**, A.M. Holban, Metal Oxide Nanoparticles: Potential Uses in Biomedical Applications, *Curr Proteomics* 11(2) (2014) 139-149.
- [139] G. Voicu, V. Grumezescu, E. Andronescu, A.M. Grumezescu, **A. Ficai**, D. Ficai, C.D. Ghitulica, I. Gheorghe, M.C. Chifiriuc, Caprolactam-silica network, a strong potentiator of the antimicrobial activity of kanamycin against Gram-positive and Gram-negative bacterial strains, *Int J Pharmaceut* 446(1-2) (2013) 63-69.
- [140] G. Voicu, R.E. Geanaliu, C.D. Ghitulica, **A. Ficai**, A.M. Grumezescu, C. Bleotu, Synthesis, characterization and bioevaluation of irinotecan-collagen hybrid materials for biomedical applications as drug delivery systems in tumoral treatments, *Cent Eur J Chem* 11(12) (2013) 2134-2143.
- [141] G. Voicu, E. Andronescu, A.M. Grumezescu, K.S. Huang, **A. Ficai**, C.H. Yang, C. Bleotu, M.C. Chifiriuc, Antitumor Activity of Magnetite Nanoparticles: Influence of Hydrocarbonated Chain of Saturated Aliphatic Monocarboxylic Acids, *Curr Org Chem* 17(8) (2013) 831-840.
- [142] F. Vaja, D. Ficai, **A. Ficai**, O. Oprea, C. Guran, Multifunctional advanced coatings based on ZnO/M obtained by nanocasting method, *J Optoelectron Adv M* 15(1-2) (2013) 107-113.
- [143] A. Spoiala, I.A. Nedelcu, D. Ficai, **A. Ficai**, E. Andronescu, Zinc Based Antibacterial Formulations for Cosmetic Applications, *Dig J Nanomater Bios* 8(3) (2013) 1235-1242.
- [144] D.E. Mihaiescu, A.M. Grumezescu, E. Andronescu, G. Voicu, **A. Ficai**, O.R. Vasile, C. Bleotu, C. Saviuc, Prosthetic Devices with Functionalized Anti-biofilm Surface Based NanoAg@C18, *Curr Org Chem* 17(2) (2013) 105-112.
- [145] A.M. Holban, A.M. Grumezescu, **A. Ficai**, C.M. Chifiriuc, V. Lazar, R. Radulescu, Fe₃O₄@C-18-CARVONE TO PREVENT CANDIDA TROPICALIS BIOFILM DEVELOPMENT, *Rev Rom Mater* 43(3) (2013) 300-305.
- [146] C. Guran, A. Pica, D. Ficai, **A. Ficai**, C. Comanescu, Antimicrobial coatings - obtaining and characterization, *B Mater Sci* 36(2) (2013) 183-188.
- [147] A.M. Grumezescu, A.I. Cotar, E. Andronescu, **A. Ficai**, C.D. Ghitulica, V. Grumezescu, B.S. Vasile, M.C. Chifiriuc, In vitro activity of the new water-dispersible Fe₃O₄@usnic acid nanostructure against planktonic and sessile bacterial cells, *J Nanopart Res* 15(7) (2013).
- [148] A.M. Grumezescu, E. Andronescu, A.M. Holban, **A. Ficai**, D. Ficai, G. Voicu, V. Grumezescu, P.C. Balaure, C.M. Chifiriuc, Water dispersible cross-linked magnetic chitosan beads for increasing the antimicrobial efficiency of aminoglycoside antibiotics, *Int J Pharmaceut* 454(1) (2013) 233-240.
- [149] A.M. Grumezescu, E. Andronescu, **A. Ficai**, G. Voicu, O. Cocos, M.C. Chifiriuc, EUGENIA CARYOPHYLLATA ESSENTIAL OIL-SiO₂ BIOHYBRID STRUCTURE FOR THE POTENTIATION OF ANTIBIOTICS' ACTIVITY, *Rev Rom Mater* 43(2) (2013) 160-166.
- [150] A.M. Grumezescu, E. Andronescu, **A. Ficai**, V. Grumezescu, C. Bleotu, C. Saviuc, D.E. Mihaiescu, C.M. Chifiriuc, Biocompatible Magnetic Hollow Silica Microspheres for Drug Delivery, *Curr Org Chem* 17(10) (2013) 1029-1033.
- [151] A.M. Grumezescu, E. Andronescu, M.G. Albu, **A. Ficai**, C. Bleotu, D. Dragu, V. Lazar, Wound Dressing Based Collagen Biomaterials Containing Usnic Acid as Quorum Sensing Inhibitor Agent: Synthesis, Characterization and Bioevaluation, *Curr Org Chem* 17(2) (2013) 125-131.
- [152] E. Grosu, **A. Ficai**, M. Rapa, G. Vlad, L. Jecu, Selecting medical grade polymers and testing for achieving antibacterial devices tubular prosthetic, *J Optoelectron Adv M* 15(7-8) (2013) 905-910.
- [153] D. Ficai, **A. Ficai**, R. Trusca, B.S. Vasile, G. Voicu, C. Guran, E. Andronescu, Synthesis and Characterization of Magnetite-Polysulfone Micro- and Nanobeads with Improved Chemical Stability in Acidic Media, *Curr Nanosci* 9(2) (2013) 271-277.
- [154] **A. Ficai**, M.G. Albu, M. Birsan, M. Sonmez, D. Ficai, V. Trandafir, E. Andronescu, Collagen hydrolysate based collagen/hydroxyapatite composite materials, *J Mol Struct* 1037 (2013) 154-159.

- [155] M.C. Chifiriuc, A.M. Grumezescu, E. Andronescu, **A. Ficai**, A.I. Cotar, V. Grumezescu, E. Bezirtzoglou, V. Lazar, R. Radulescu, Water dispersible magnetite nanoparticles influence the efficacy of antibiotics against planktonic and biofilm embedded *Enterococcus faecalis* cells, *Anaerobe* 22 (2013) 14-19.
- [156] P.C. Balaure, E. Andronescu, A.M. Grumezescu, **A. Ficai**, K.S. Huang, C.H. Yang, C.M. Chifiriuc, Y.S. Lin, Fabrication, characterization and in vitro profile based interaction with eukaryotic and prokaryotic cells of alginate-chitosan-silica biocomposite, *Int J Pharmaceut* 441(1-2) (2013) 555-561.
- [157] I. Anghel, A.M. Grumezescu, A.M. Holban, **A. Ficai**, A.G. Anghel, M.C. Chifiriuc, Biohybrid Nanostructured Iron Oxide Nanoparticles and *Satureja hortensis* to Prevent Fungal Biofilm Development, *Int J Mol Sci* 14(9) (2013) 18110-18123.
- [158] E. Andronescu, **A. Ficai**, M. Georgiana, V. Mitran, M. Sonmez, D. Ficai, R. Ion, A. Cimpean, Collagen-hydroxyapatite/Cisplatin Drug Delivery Systems for Locoregional Treatment of Bone Cancer, *Technol Cancer Res T* 12(4) (2013) 275-284.
- [159] M. Sonmez, D. Ficai, A. Stan, C. Bleotu, L. Matei, **A. Ficai**, E. Andronescu, Synthesis and characterization of hybrid PVA/Al₂O₃ thin film, *Mater Lett* 74 (2012) 132-136.
- [160] M. Scurtu, E. Andronescu, C. Guran, M. Sonmez, A. Grumezescu, L. Pall, **A. Ficai**, D. Ficai, Colloidal Silica Use As Dyes Removing System, *Rev Chim-Bucharest* 63(10) (2012) 1013-1015.
- [161] A. Pica, C. Guran, E. Andronescu, O. Oprea, D. Ficai, **A. Ficai**, Antimicrobial performances of some film forming materials based on silver nanoparticles, *J Optoelectron Adv M* 14(9-10) (2012) 863-868.
- [162] A.M. Grumezescu, **A. Ficai**, D. Ficai, G. Predan, M.C. Chifiriuc, Polymeric Magnetic Silica Microspheres as a Drug Loader for Antimicrobial Delivery Substances, *Dig J Nanomater Bios* 7(4) (2012) 1891-1896.
- [163] A.M. Grumezescu, E. Andronescu, **A. Ficai**, C. Bleotu, D.E. Mihaiescu, M.C. Chifiriuc, Synthesis, characterization and in vitro assessment of the magnetic chitosan-carboxymethylcellulose biocomposite interactions with the prokaryotic and eukaryotic cells, *Int J Pharmaceut* 436(1-2) (2012) 771-777.
- [164] M.G. Florea, **A. Ficai**, O. Oprea, C. Guran, D. Ficai, L. Pall, E. Andronescu, Drug Delivery Systems Based on Silica with Prolonged Delivery of Folic Acid, *Rev Rom Mater* 42(3) (2012) 313-316.
- [165] D. Ficai, E. Andronescu, **A. Ficai**, G. Voicu, B. Vasile, V. Ionita, C. Guran, Synthesis and Characterization of Mesoporous Magnetite Based Nanoparticles, *Curr Nanosci* 8(6) (2012) 875-879.
- [166] **A. Ficai**, E. Andronescu, D. Ficai, M. Sonmez, M.G. Albu, G. Voicu, Mimicking the morphology of long bone, *Cent Eur J Chem* 10(6) (2012) 1949-1953.
- [167] C. Comanescu, D. Ficai, **A. Ficai**, O. Oprea, I. Lacatusu, C. Guran, Lipase Immobilisation on New Silica-Based Supports, *J Environ Prot Ecol* 13(4) (2012) 2302-2309.
- [168] I. Anghel, A.M. Holban, A.M. Grumezescu, E. Andronescu, **A. Ficai**, A.G. Anghel, M. Maganu, V. Lazar, M.C. Chifiriuc, Modified wound dressing with phyto-nanostructured coating to prevent staphylococcal and pseudomonal biofilm development, *Nanoscale Res Lett* 7 (2012) 1-8.
- [169] I. Anghel, A.M. Grumezescu, E. Andronescu, A.G. Anghel, **A. Ficai**, C. Saviuc, V. Grumezescu, B.S. Vasile, M.C. Chifiriuc, Magnetite nanoparticles for functionalized textile dressing to prevent fungal biofilms development, *Nanoscale Res Lett* 7 (2012).
- [170] I. Titorencu, M.G. Albu, L. Popa, **A. Ficai**, L. Albu, V. Jinga, M.V. Ghica, Collagen-Doxycycline Matrices Used in Tissue Engineering, *Farmacia* 59(6) (2011) 794-802.
- [171] R.I. Iliescu, E. Andronescu, G. Voicu, **A. Ficai**, C.I. Covaliu, Hybrid materials based on montmorillonite and citostatic drugs: Preparation and characterization, *Appl Clay Sci* 52(1-2) (2011) 62-68.
- [172] A. Ilie, E. Andronescu, D. Ficai, G. Voicu, M. Ficai, M. Maganu, **A. Ficai**, New approaches in layer by layer synthesis of collagen/hydroxyapatite composite materials, *Cent Eur J Chem* 9(2) (2011) 283-289.
- [173] A.M. Grumezescu, E. Andronescu, **A. Ficai**, C. Saviuc, D. Mihaiescu, M.C. Chifiriuc, DEAE-CELLULOSE/Fe₃O₄/CEPHALOSPORINS HYBRID MATERIALS FOR TARGETED DRUG DELIVERY, *Rev Rom Mater* 41(4) (2011) 383-387.
- [174] M. Ficai, I.A. Nedelcu, D. Ficai, B.S. Vasile, **A. Ficai**, E. Andronescu, The Influence of Ultrasonication on the Formation of COLL/HA Composite Materials, *Mater Plast* 48(1) (2011) 23-26.
- [175] D. Ficai, **A. Ficai**, B.S. Vasile, M. Ficai, O. Oprea, C. Guran, E. Andronescu, Synthesis of Rod-Like Magnetite by Using Low Magnetic Field, *Dig J Nanomater Bios* 6(3) (2011) 943-951.
- [176] D. Ficai, **A. Ficai**, M. Alexie, M. Maganu, C. Guran, E. Andronescu, Fe₃O₄/SiO₂/APTMS Nanoparticles with Core-Shell Structure as Potential Materials for Cooper Removal, *Rev Chim-Bucharest* 62(6) (2011) 622-625.
- [177] **A. Ficai**, D. Ficai, E. Andronescu, M. Maganu, G. Voicu, M. Sonmez, Biomimetic Mineralization of the Human Nasal Septum Cartilage, *Dig J Nanomater Bios* 6(3) (2011) 1377-1383.
- [178] M. Dumitrascu, V. Meltzer, E. Sima, M. Virgolici, M.G. Albu, **A. Ficai**, V. Moise, R. Minea, C. Vancea, A. Scarisoreanu, F. Scarlat, Characterization of Electron Beam Irradiated Collagen-Polyvinylpyrrolidone (Pvp) and Collagen-Dextran (Dex) Blends, *Dig J Nanomater Bios* 6(4) (2011) 1793-1803.
- [179] E. Andronescu, G. Voicu, M. Ficai, I.A. Mohora, R. Trusca, **A. Ficai**, Collagen/hydroxyapatite composite materials with desired ceramic properties, *J Electron Microsc* 60(3) (2011) 253-259.
- [180] N.D. Stanciu, V.V. Jerca, D.M. Vuluga, P. Stanescu, **A. Ficai**, M. Teodorescu, Synthesis and Characterization of Composites from Layered Silicates and Homo- and Copolymers of 2-Hydroxyethyl Methacrylate and P-Chloromethyl Styrene Obtained by In Situ Radical (Co)polymerization, *Mol Cryst Liq Cryst* 521 (2010) 204-213.
- [181] D. Manzu, L. Pasare, D. Rata, B.G. Albu, **A. Ficai**, C. Guran, SYNTHESIS AND CHARACTERIZATION OF THE NEW HYBRID COMPOSITE MEMBRANES BASED ON THE ORGANO-SUBSTITUTED PHOSPHAZENE AND SiO₂ NETWORK, *Rev Rom Mater* 40(1) (2010) 65-70.

- [182] D. Manzu, F. Dumitru, **A. Ficai**, A. Razvan, C. Guran, Organocyclophosphazenes Silica Hybrid Materials I. Synthesis and characterization of siloxane monomers and of cyclophosphazene SiO₂ composites, *Mater Plast* 47(3) (2010) 292-298.
- [183] M. Ficai, E. Andronescu, G. Voicu, D. Ficai, M.G. Albu, **A. Ficai**, Mollusc Shell/Collagen Composite as Potential Biomaterial for Bone Substitutes, *Rev Rom Mater* 40(4) (2010) 359-364.
- [184] M. Ficai, E. Andronescu, D. Ficai, G. Voicu, **A. Ficai**, Synthesis and characterization of COLL-PVA/HA hybrid materials with stratified morphology, *Colloid Surface B* 81(2) (2010) 614-619.
- [185] D. Ficai, **A. Ficai**, G. Voicu, B.S. Vasile, C. Guran, E. Andronescu, Polysulfone based Membranes with Desired Pores Characteristics, *Mater Plast* 47(1) (2010) 24-27.
- [186] **A. Ficai**, E. Andronescu, G. Voicu, C. Ghitulica, B.S. Vasile, D. Ficai, V. Trandafir, Self-assembled collagen/hydroxyapatite composite materials, *Chem Eng J* 160(2) (2010) 794-800.
- [187] **A. Ficai**, E. Andronescu, G. Voicu, C. Ghitulica, D. Ficai, The influence of collagen support and ionic species on the morphology of collagen/hydroxyapatite composite materials, *Mater Charact* 61(4) (2010) 402-407.
- [188] **A. Ficai**, E. Andronescu, G. Voicu, M.G. Albu, A. Ilie, Biomimetically Synthesis of Collagen / Hydroxyapatite Composite Materials, *Mater Plast* 47(2) (2010) 205-208.
- [189] **A. Ficai**, E. Andronescu, V. Trandafir, C. Ghitulica, G. Voicu, Collagen/hydroxyapatite composite obtained by electric field orientation, *Mater Lett* 64(4) (2010) 541-544.
- [190] E. Andronescu, M. Ficai, G. Voicu, D. Ficai, M. Maganu, **A. Ficai**, Synthesis and characterization of collagen/hydroxyapatite: magnetite composite material for bone cancer treatment, *J Mater Sci-Mater M* 21(7) (2010) 2237-2242.
- [191] M.G. Albu, M.V. Ghica, **A. Ficai**, I. Titorencu, L. Popa, Influence of Freeze-Drying Process on Porosity and Kinetics Release of Collagen-Doxycycline Matrices, *Proceedings of the 3rd International Conference on Advanced Materials and Systems* (2010) 181-186.
- [192] **A. Ficai**, E. Andronescu, G. Voicu, D. Manzu, M. Ficai, Layer by layer deposition of hydroxyapatite onto the collagen matrix, *Mat Sci Eng C-Mater* 29(7) (2009) 2217-2220.
- [193] **A. Ficai**, E. Andronescu, C. Ghitulica, G. Voicu, V. Trandafir, D. Manzu, M. Ficai, S. Pall, Collagen/Hydroxyapatite Interactions in Composite Biomaterials, *Mater Plast* 46(1) (2009) 11-15.
- [194] S. Lupu, **A. Ficai**, Layer by Layer Deposition of Redox Polymers/Enzyme Assemblies onto Electrodes Surfaces for Nitrate Electrochemical Sensing, *Rev Roum Chim* 52(12) (2007) 1137-1143.
- [195] Florica Vaja (Dumitru), Cornelia Guran, Denisa Ficai, **Anton Ficai**, Ovidiu Oprea; Cytotoxic effects of ZnO nanoparticles incorporated in mesoporous silica; *U. P. B. Sci. Bull. , Series B*, Vol. 76, Iss. 3, 55-66, 2013, (ISSN 1454-2331)
- [196] Alexandra Pică, Cornelia Guran, Denisa Ficai, **Anton Ficai**, Ovidiu Oprea, Decorative antimicrobial coating materials based on silver nanoparticles, *U. P. B. Sci. Bull. , Series B*, Vol. 75, Iss. 1, 35 -42, 2013, (ISSN 1454-2331)
- [197] Anton Ficai, Maria Sonmez, Denisa Ficai, Ecaterina Andronescu; Synthesis Of Collagen/Hydroxyapatite Composite Materials With Oriented Microstructure Induced By The Interaction Of The Flowing Mineralised Collagen Gel With The Support; *ChemXpress*, 2014: 3(3), 107-110
- [198] Cristina BAN, Adriana STEFAN, Ion DINCA, George PELIN, Anton FICAI, Ecaterina ANDRONESCU, Ovidiu OPREA; Effect of nanoclay and carbon nanotubes addition in polypropylene nanocomposites; International Conference of Aerospace Sciences "AEROSPATIAL 2014" Bucharest, 18 - 19 September, 2014
- [199] Ani Ioana Cotar, Alexandru Mihai Grumezescu, Ecaterina Andronescu, Georgeta Voicu, **Anton Ficai**, Keng-Liang Ou, Keng-Shiang Huang, Mariana Carmen Chifiriuc; Nanotechnological solution for improving the antibiotic efficiency against biofilms developed by gram-negative bacterial strains; *Letters in Applied NanoBioScience*, 2013: 2(1),97-104 (ISSN 2284-6808);
- [200] Alexandra PICA, Cornelia GURAN, Denisa FICAI, Anton FICAI, Oprea OVIDIU; Decorative antimicrobial coating materials based on silver nanoparticles; *UPB Bull. Sci. B-Chemistry* 2013: 75(1),35-42 (ISSN 1454-2331);
- [201] Alexandru Mihai GRUMEZESCU, Alina Maria HOLBAN, Ecaterina ANDRONESCU, **Anton FICAI**, Coralia BLEOTU, Mariana Carmen CHIFIRIUC; Water dispersible metal oxide nanobiocomposite as a potentiator of the antimicrobial activity of kanamycin; *Letters in Applied NanoBioScience*, 2012: 1(4),77-82 (ISSN 2284-6808);
- [202] Alexandru Mihai Grumezescu, Alina Maria Holban, Ecaterina Andronescu, Maria Tomoiaga, **Anton Ficai**, Coralia Bleotu, Mariana Carmen Chifiriuc; Microbiological applications of a new water dispersible magnetic nanobiocomposite; *Letters in Applied NanoBioScience*, 2012: 1(4),83-90 (ISSN 2284-6808);
- [203] Alexandru Mihai Grumezescu, Ecaterina Andronescu, **Anton Ficai**, Denisa Ficai, Keng-Shiang Huang, Irina Gheorghe, Carmen Mariana Chifiriuc; Water soluble magnetic biocomposite with potential applications for the antimicrobial therapy; *Biointerface Research in Applied Chemistry*, 2012: 2(6),469-475 (ISSN 2069-5837);
- [204] Alexandru Mihai Grumezescu, Ecaterina Andronescu, **Anton Ficai**, Coralia Bleotu, Mariana Carmen Chifiriuc; Chitin based biomaterial for antimicrobial therapy: fabrication, characterization and *in vitro* profile based interaction with eukaryotic and prokaryotic cells; *Biointerface Research in Applied Chemistry*, 2012: 2(5), 438-445 (ISSN 2069-5837);
- [205] Ecaterina Andronescu, Alexandru Mihai Grumezescu, **Anton Ficai**, Irina Gheorghe, Mariana Chifiriuc, Dan

- Eduard Mihaiescu, Veronica Lazar, In vitro efficacy of antibiotic magnetic dextran microspheres complexes against *Staphylococcus aureus* and *Pseudomonas aeruginosa* strains, *Biointerface Research in Applied Chemistry*, 2012: **2**(3), 332-338 (ISSN 2069-5837);
- [206] Alexandru Mihai Grumezescu, Ecaterina Andronescu, **Anton Fikai**, Dan Eduard Mihaiescu, Bogdan Stefan Vasile, Coralia Bleotu, Syntehsis, Characterization and biological evaluation of Fe₃O₄/C₁₂ core/shell nanosystem, *Letters in Applied NanoBioScience*, 2012: **1**(2),31-35(ISSN 2284-6808);
- [207] Dan Eduard Mihaiescu, Mariana Horja, Irina Gheorghe, **Anton Fikai**, Alexandru Mihai Grumezescu, Coralia Bleotu, Carmen Mariana Chifiriuc, Water soluble magnetite nanoparticles for antimicrobial drugs delivery, *Letters in Applied NanoBioScience*, 2012: **1**(2), 45-49 (ISSN 2284-6808);
- [208] Ruxandra Irina ILIESCU, Ecaterina ANDRONESCU, Cristina Daniela, GHITULICĂ, Daniela BERGER, **Anton FICAI**; Montmorillonite-alginate nanocomposite beads as drug carrier for oral administration of carboplatin–preparation and characterization; *UPB Bull. Sci. B-Chemistry* 2011: 73(3),2-16 (ISSN 1454-2331);
- [209] Maria FICAI, Ecaterina ANDRONESCU, **Anton FICAI**, Georgeta VOICU, Bogdan Stefan VASILE; Poly Bis-GMA/HA based hybrid composite materials; *UPB Bull Sci.* 2011: 73(1), 75-84 (ISSN 1454-2331);
- [210] Alina Catrinel ION, Ion ION, Anton FICAI; Graphenes and some of their promising environmental application in the detection of environmental contaminants. *Environmental Nano Technologies* 2010; **1**: 42-48;
- [211] Madalina Georgiana ALBU, **Anton FICAI**, Adriana LUNGU; Preparation and characterization of collagen matrices obtained at different freezing temperatures; *Leather and Footwear Journal*; 2010: 10(3); 11pg (ISSN 1583-4433);
- [212] **Anton FICAI**, Ecaterina ANDRONESCU, Georgeta VOICU, Stefan PALL; Methodology of *in vitro* characterization of human uroliths; *UPB Bull Sci.* 2010: **72**(1): 47-56 (ISSN 1454-2331);
- [213] Alina Catrinel ION, Ion ION, Dragos STEFAN, **Anton FICAI**; Improving Mercury speciation in urine samples using potentiometric methods; *Biomedical Engineering Conference, 2006, Part. I*, pag 77–81.
- [214] **FICAI Anton**, **TRANDAFIR** Viorica, ANDRONESCU Ecaterina. Collagen/hydroxyapatite composite materials for bone tissue repairing. Roumanian International Chemistry Conference on Chemical Engineering; Sinaia, Romania: Printech. 2007; p. S653-S655 (ISSN 2068-0783).
- [215] Claude MATASA, **Anton FICAI**, „Acrilics-solvent: A promising interaction”, *The orthodontic materials; INSIDER*, 2005, **17**(4);
- [216] Florina Dumitru, Mihaela Alexie, Liliana Pasăre, Daniela Rață, Alina Nicolescu, Calin Deleanu, Denisa Mânzu, **Anton Fikai**, Anca Răzvan, Cornelia Guran, New membranes with anion recognition fixed sites, Conference "Excellence research – a way to innovation", Brasov 27-29 iulie, 2008, Editura Tehnica (ISSN: 1844-7090) L245, 6 pg;
- [217] Ion Ion, Alina Catrinel Ion, Elena Ruse, **Anton FICAI**, “Simultaneous spectrophotometric determination of iron (II) and iron (III) in natural water”, *Science and Technology of Environmental Protection*; 2005; **11**(2);
- [218] Alina Catrinel ION, Ion ION, Luminița BARBU, **Anton FICAI**; “Potentiometric measurement of Cadmium from fertilizers and soil”, *Science and Technology of Environmental Protection*; 2003; **10**(21);

07.04.2020

Anton FICAI