



Personal information

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

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Nationality Romanian

Date of birth 12. 11. 1981

Gender male

Current employment / Occupational field **Professor, Ph. D. Habil. Eng. UPB; Faculty of Chemical Engineering and Biotechnologies**
Associate member of Academy of Romanian Scientists

Work experience

Dates 25 September 2017 – onward

Occupation or position held **Prof. Habil. Dr. Eng. (3266/02.03.2016)**

Main activities and responsibilities **Teaching activities** (classes and/or applications): Composite Materials for Medicine, Chemistry, Drug Delivery Systems, Chemistry and Characterisation of Materials, Nanobiomaterials for Tissue Engineering; **Research activities**

Name and address of employer POLITEHNICA University of Bucharest, Faculty of Chemical Engineering and Biotechnologies, Department of Oxide Materials and Nanomaterials

Type of business or sector Education + Research

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

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 (Valedictorian diploma)**
Principal subjects/occupational skills covered Organic Chemistry
Name and type of organisation providing education and training University POLITEHNICA of Bucharest, Faculty of Applied Chemistry and Materials Science,
Department of Organic Chemistry
Level in national or international classification Academic degree

Personal skills and competences

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

(*) Common European Framework of Reference for Languages

Social skills and competences	Team work: I was employed as researcher or as manager in over 50 national or international research projects (14 as project manager/responsible)
Organisational skills and competences	During the faculty's years I was involved in most of the student activities (chief of the student hostel) acquiring good organizational skills I was involved in the organizing committee of the "CD 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 300 per-reviewed published works (over 230 is indexed in ISI Web of Science); cumulative impact factor >560; Hirsh index 33 (ISI); Times of citations > 3500 (self-citations excluded);
- 18 Books and Chapters of books;
- 9 patent issued by OSIM and 23 pending Patent Applications

Editorial Boards

Editorial board:

- **Coatings – MDPI (2019-onward)** - ISI journal – **Section Editor in Chief**
- **Revista Romana de Materiale - Romanian Journal of Materials** (2017-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

52 research projects with national and international financing (16 of them being project manager/responsible)

1. **PN-III-P1-1.1-TE-2021-1242; Glass functionalisation and decoration with nanoparticles: a challenging way to induce new applications; Role: Project manager, Period of implementation: 2022-2024**
2. PN-III-P2-2.1-PED-2021-3177; Superior recovery of recycled polyethylene by compounding with chemically modified starch and nanopowders in order to obtain materials with antimicrobial properties for reprop 3d printers; Role: researcher, Period of implementation: 2022-2024
3. PN-III-P2-2.1-PED-2021-0627; Innovative multifunctional composites for the protection of cultural heritage objects; Role: Researcher, Period of implementation: 2022-2024
4. PN-III-P2-2.1-PED-2021-3414; Innovative antimicrobial food packages for advanced food security; Role: Researcher, Period of implementation: 2022-2024
5. PN-III-P2-2.1-PED-2021-1788; Innovative nanostructured nutraceuticals with synergistic bioactivities for hepato-digestive protection; Role: Researcher, Period of implementation: 2022-2024
6. Action CA20126, "Network for research, innovation and product development on porous semiconductors and oxides" (NANOPORE); Role: Responsible Romanian side; Period of implementation: 2021-2025
7. PN-III-P1-1.1-PD-2019-1156; Novel 2D nanocomposite membranes based on chitosan for water purification/ Noi membrane nanocompozite 2D pe bază de chitosan pentru purificarea apei; Postdoctorand Angela SPOIALA; Period of implementation: 2020-2022 (**Rol – Mentor**).
8. PN-III-P1-1.1-PD-2019-1185- Nanomateriale bioactive pentru terapie combinată: modularea infecțiilor microbiene și prevenția recurenței tumorale; Postdoctorand Valentina Grumezescu (**Rol – Mentor**).
9. PN-III-P1-1.1-TE-2019-1450/TE 103/Platformă microfluidică multifuncțională de tipul lab-on-a-chip pentru fabricarea nanoparticulelor/Multifunctional lab-on-a-chip microfluidic platform for the fabrication of nanoparticles; Rol: Cercetator; Period of implementation: 23.10.2020-22.10.2022
10. PN III (2013-2020) / PED 2019; Valorificarea nanoparticulelor magnetice in dezvoltarea unui micro-dispozitiv magnetic / contract No. 522/23.10.2020; Role: Researcher; Period of implementation: 23.10.2020-22.10.2022
11. PN III (2013-2020) / PED 2019; Evaluarea potentialului de exploatare a materialelor poroase in tratarea disbiozelor microbiotei / Evaluation of the exploitation potential Potential of Porous Materials in the tREatment of Microbiota-related dISeasEs – contract No. 524/23.10.2020; Role: Researcher; Period of implementation: 23.10.2020-22.10.2022
12. PN-III-P2-2.1-PED-2019-1375; Elaborarea de noi antiseptice pe baza de oxid de zinc pentru tratarea clinica a plagilor; Role: Researcher; Period of implementation: 2020-2022
13. **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
14. **Action CA18132**; Functional Glyconanomaterials for the Development of Diagnostics and Targeted Therapeutic Probes; Role: Researcher/ **Responsible of UPB**; Period of implementation: 2018-2022
15. 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 tartare a apelor reziduale; Role: Researcher/ **Responsible of UPB**; Period of implementation: 2018-2022
16. 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
 17. 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
 18. 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;
 19. PN-III-P1-1.2-PCCDI-2017-0689; Lib2Life- Revitalizarea bibliotecilor și a patrimoniului cultural prin tehnologii avansate; Period of implementation: 2018-2021;
 20. 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;
 21. Project JINR-RO 2018; Development and characterisation of magnetic nanostructures for targeted cancer therapy; Responsible UPB; Period of implementation: 2018;
 22. 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;
 23. PN-III-P2-2. 1-PED-2016-0427; Realizare demonstrator in tehnologia planara de tranzistor cu tunelare a izolatorilor ultrasubțiri - ca promotor al unei serii de nano-dispozitive și evidențierea utilitatii in industrie; Role: Researcher; Period of implementation: 2017-2018;
 24. PN-III-P2-2. 1-PED-2016-0952 “Biomimetic 3D-printed porous scaffolds for bone tissue engineering / Structuri poroase biomimetice obținute prin printare 3D pentru ingineria țesutului osos” Role: Researcher; Period of implementation: 2017-2018;
 25. **63/10. 04. 2017/IUCN DUBNA; Nanostructured magnetic colloids for targeted cancer therapy; Role: project manager; Period of implementation: 2017;**
 26. 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;
 27. PN-III-P2-2. 1-PTE-2016-0156; Harnessing recycled thermoplastic polymers by reinforcement with functionalized natural fibers to obtain new added-value products; Role: Researcher; Period of implementation: 2016-2018;
 28. 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;
 29. **POC-D; Prototip pentru validare nanotehnologie inovatoare și linie de producție (P_39_240), manager de proiect;**
 30. Era Net Rus Plus project „Titanium Oxynitride Coatings for the Improvement of Biocompatibility and Long-Term Functionality of Cardiovascular Stents: Development of Novel Deposition Technology- TIOXTECH-BIO”; Role: Researcher/ **Responsible of UPB**; Period of implementation: 2016-2018;
 31. 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;
 32. **„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;**
 33. PNCIDI 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;
34. PNCIDI 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;
 35. 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;
 36. MPNS COST Action MP1301: New Generation Biomimetic and Customized Implants for Bone Engineering; Role: member of the Romania team; 2013-2017
 37. TD COST Action TD1305: Improved Protection of Medical Devices Against Infection (IPROMEDAI); Role: member of the Romania team; 2013-2017
 38. 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;
 39. **PNCIDI 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;**
 40. PNCIDI 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;
 41. PNCIDI II – CAPACITATI (Modulul II) Perspective Studies „NanoProspect”; Role: Researcher; Period of implementation: 2010-2011;
 42. PNCIDI II – CAPACITATI (Modulul III) - Bilateral Romania-Germania/Natural nanoparticles in soil as possible environmental vectors for contaminants; Ctr. Nr. 327/18. 08. 2009; Role: Researcher; Period of implementation: 2009;
 43. PNCIDI II – Partnership: Multifunctional nanobiocomposites used as regenerative and drug delivery support–SIMAC; Ctr. Nr. 72_198; Role: Researcher; Period of implementation: 2008– 2011;
 44. PNCIDI 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;
 45. PNCIDI II – Partnership: Miniaturized biosensor, micro technology, organophosphorous insecticides, acetylcholinesterase (AChE), acetylthiocholine (ACh) / Microtehnologia obtinerii de biosenzori miniaturizati pentru detectare rapida a contaminantilor din produsele alimentare; Ctr. Nr. 52_173; Role: Researcher; Period of implementation: 2008 – 2011;
 46. PNCIDI 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;
 47. **Proiect PN II_MC – Electric field influence on collagen mineralization process; Role: Project manager; Period of implementation: 2008;**
 48. PNCIDI II– Partnership: The achievement of new biomaterials with collagenic, supramolecular doped structures with piezoelectical, liquid crystals, electrical and magnetical properties used for biotechnology; Ctr. Nr. 71_147; Role: Researcher; Period of implementation: 2007 – 2010;
 49. **PN II_TD – Collagen/Hydroxyapatite Composite Materials; Role: Project manager; Period of implementation: 2007 – 2009;**
 50. **PN II_BD – Composite Biomaterials based on Collagen and Hydroxyapatite; Role: Project manager; Period of implementation: 2006 – 2009;**
 51. P-CD CEEEX: Combinatorial library for the synthesis of neutral receptors of inorganic anions; from project to potential applications; Role: Researcher; Period of implementation: 2006–2008;
 52. PNCIDI I-CERES type PED/Hybrid membranar materials with polyphosphazenic backbone; Role: Researcher; Period of implementation: 2002- 2004.

- Prizes and Awards:**
- 2023 Romanian Research Gala (Gala Cercetării Românești), 1st edition, Bucharest, Romania, Organized by the Ministry of Research, Innovation and Digitization under the Aegis of the Romanian Government
Special Award for Transfer of the Results into Economy**

 - 2022 7th International Invention Innovation Competition in Canada – ICan 2022; August 27, Toronto, Canada**
Denisa FICAI, Georgiana DOLETE, Alexa-Maria CROITORU, Marcela POPA, Laura-Florentina BOANȚĂ, Dan Eduard MIHAIESCU, Anton FICAI, Ecaterina ANDRONESCU, Carmen CHIFIRIUC; Wastewater treatment technology at the level of treatment plants contaminated with antibiotics, pesticides or other biologically active substances; A/00707/24.11.2021;
“**Gold medal**” awarded by the International Jury of ICan 2022
Canadian Special Award: Innovation Initiative Co-operative Inc. “The Inventors Circle”

 - Ovidiu-Cristian OPREA, Anton FICAI, Denisa FICAI, Ludmila MOTELICA, Ecaterina ANDRONESCU, Roxana Doina TRUȘCĂ; Antimicrobial Compositions based on cellulose and ZnO loaded with Citronellor for restoring paper from documents affected by the microorganisms; A/00615/06.10.2021
“**Gold medal**” awarded by the International Jury of ICan 2022
International Special Award: Macao Innovation and Invention Association

 - 2022: IDEA-EXPO 2022 IDEA, Novelty, Invention, Art and Crafts International Exhibition and Fair, 06-07 April 2019, Szolnok, Hungary**
Denisa FICAI, Georgiana DOLETE, Alexa-Maria CROITORU, Marcela POPA, Laura-Florentina BOANȚĂ, Dan Eduard MIHAIESCU, Anton FICAI, Ecaterina ANDRONESCU, Carmen CHIFIRIUC; Wastewater treatment technology at the level of treatment plants contaminated with antibiotics, pesticides or other biologically active substances; A/00707/24.11.2021;
“**Gold medal**” awarded by the Jury of Idea-Expo 2022
“**Julianna Dîj Award**” awarded by the Jury of Idea-Expo 2022
Liliana MARINESCU, Laura-Florentina BOANTA, Anton FICAI, Denisa FICAI, Ecaterina ANDRONESCU, Procedeu de tratament a diverselor substraturi naturale sau sintetice în vederea inducerii de activități antimicrobiene, antibiofilm, antifungice, antialgice sau chiar antivirale bazate pe nanotehnologii; A/00075/25.02.2021
“**Gold medal**” awarded by the Jury of Idea-Expo 2022
Ovidiu-Cristian OPREA, Anton FICAI, Denisa FICAI, Ludmila MOTELICA, Ecaterina ANDRONESCU, Roxana Doina TRUȘCĂ; Antimicrobial Compositions based on cellulose and ZnO loaded with Citronellor for restoring paper from documents affected by the microorganisms / Compoziții antimicrobiene pe bază de celuloză și ZnO încărcate cu Citronellol pentru restaurarea hârtiei din documente afectate de microorganisme; A/00615/06.10.2021
“**Gold medal**” awarded by the Jury of Idea-Expo 2022

 - 2022: 14th European Exhibition of Creativity and Innovation-EuroInvent 2022, 26-28 May 2022, Iași, Romania**
Ovidiu-Cristian OPREA, Anton FICAI, Denisa FICAI, Ludmila MOTELICA, Ecaterina ANDRONESCU, Roxana Doina TRUȘCĂ; Antimicrobial Compositions based on cellulose and ZnO loaded with Citronellor for restoring paper from documents affected by the microorganisms / Compoziții antimicrobiene pe bază de celuloză și ZnO încărcate cu Citronellol pentru restaurarea hârtiei din documente afectate de microorganisme; A/00615/06.10.2021
“**Silver medal**” awarded by the Jury of EuroInvent 2022
“**Gold medal**” awarded by the Tehnical University of Moldova
“**Excellence Award**” awarded by the Grigore T Popa University of Medicine and Pharmacy, Iasi
“**Diploma de Excelență**” awarded by the AGEPI, Moldova
Liliana MARINESCU, Laura-Florentina BOANTA, Anton FICAI, Denisa FICAI, Ecaterina ANDRONESCU, Procedeu de tratament a diverselor substraturi naturale sau sintetice în vederea inducerii de activități antimicrobiene, antibiofilm, antifungice, antialgice sau chiar antivirale bazate pe nanotehnologii; A/00075/25.02.2021
“**Silver medal**” awarded by the Jury of EuroInvent 2022
“**Special Award**” awarded by the USAMV-București

“**Innovation Award**” awarded by the ICECHIM-București
Liliana MARINESCU, Laura – Florentina BOANȚĂ, Anton FICAI, Denisa FICAI, Ecaterina ANDRONESCU, Mariana Carmen CHIFIRIUC, Alina-Maria HOLBAN; Siloxane-based solution for the cleaning and conservation of the natural and synthetic surfaces / Soluții de impregnare pe bază de siloxani cu rol de curățare și conservare pentru substraturi naturale și sintetice; A/00356 / 22.06.2021
“**Gold medal**” awarded by the Jury of EuroInvent 2022
“**Innovation Award**” awarded by the ICECHIM-București
“**Special Prize**” awarded by the Lucian Blaga University of Sibiu
“**Special Prize**” awarded by the University POLITEHNICA of Timișoara
Denisa FICAI, Georgiana DOLETE, Alexa-Maria CROITORU, Marcela POPA, Laura-Florentina BOANȚĂ, Dan Eduard MIHAIESCU, Anton FICAI, Ecaterina ANDRONESCU, Carmen CHIFIRIUC; Tehnologie de tratare a apelor uzate de la nivelul stațiilor de epurare cu potential ridicat de antibiotic, pesticide sau alte substanțe biologice active; A/00707/24.11.2021;
“**Gold medal**” awarded by the Jury of EuroInvent 2022
“**Diploma of Excellence**” awarded by the INFLPR
“**Gold Trophy & Diploma of Excellence**” awarded by the University of Craiova
“**Gold Medal and Certificate of Excellence**” awarded by the Romanian Institute for Advanced Studies and Research – GIFTED
“**NIRD URBAN-INCERC DIPLOMA**”

2022: 15th International Invention and Innovation Show, Intarg 2021 11-12 March, 2022

Denisa FICAI, Georgiana DOLETE, Alexa-Maria CROITORU, Marcela POPA, Laura-Florentina BOANȚĂ, Dan Eduard MIHAIESCU, Anton FICAI, Ecaterina ANDRONESCU, Carmen CHIFIRIUC; Tehnologie de tratare a apelor uzate de la nivelul stațiilor de epurare cu potential ridicat de antibiotic, pesticide sau alte substanțe biologice active; A/00707/24.11.2021;
“**Gold medal**” awarded by the Jury of INTARG 2022
“**Special Award**” awarded by the Industrial Property Office of the Czech Republic

Liliana MARINESCU, Laura-Florentina BOANTA, Anton FICAI, Denisa FICAI, Ecaterina ANDRONESCU, Procedeu de tratament a diverselor substraturi naturale sau sintetice în vederea inducerii de activități antimicrobiene, antibiofilm, antifungice, antialgice sau chiar antivirale bazate pe nanotehnologii; A/00075/25.02.2021
“**Silver medal**” awarded by the Jury of INTARG 2022

Ovidiu-Cristian OPREA, Anton FICAI, Denisa FICAI, Ludmila MOTELICA, Ecaterina ANDRONESCU, Roxana Doina TRUȘCĂ; Antimicrobial Compositions based on cellulose and ZnO loaded with Citronellol for restoring paper from documents affected by the microorganisms / Compoziții antimicrobiene pe bază de celuloză și ZnO încărcate cu Citronellol pentru restaurarea hârtiei din documente afectate de microorganisme; A/00615/06.10.2021
“**Silver medal**” awarded by the Jury of EuroInvent 2022

2021: International Salon of Inventions and Innovations InventCor 2021, second edition 16-18 December 2021, Deva, Romania

Anton FICAI, Denisa FICAI, Ludmila MOTELICA, Ovidiu-Cristian OPREA, Ecaterina ANDRONESCU; **Compositions and process for treating the materials devoted for the manufacturing protective devices with antiviral and antimicrobial activity**; A/00244/06.05.2020
“**Gold medal**” awarded by the Jury of InventCor 2021
“**Jury Award**” awarded by the Jury of InventCor 2021

Codina MOVILEANU, Denisa FICAI, Anton FICAI, Manuela CĂLIN, Maria Florentina ANGHELACHE, Anca Violeta GAFENCU, Gheorghe FUNDUEANU-CONSTANTIN, Mariana PINTEALA, Maya SIMIONESCU, Ecaterina ANDRONESCU; **Sisteme inteligente de nanoparticule pentru internalizare celulară**; A/00339/15.06.2021
“**Gold medal**” awarded by the Jury of InventCor 2021

OPREA Ovidiu Cristian; FICAI Anton; FICAI Denisa; MOTELICA Ludmila; ANDRONESCU Ecaterina; TRUȘCA Roxana Doina; **Composition for restoring**

paper from documents affected by microorganisms; A00818/09.12.2020
“Gold medal” awarded by International Jury of the Salon

Liliana MARINESCU, Laura-Florentina BOANTA, Anton FICAI, Denisa FICAI, Ecaterina ANDRONESCU; Process for treating various natural or synthetic substrates in order to induce antimicrobial, antibiofilm, antifungal, antialgic or even antiviral activities based on nanotechnologies; A/00075/25.02.2021

“Gold medal” awarded by the Jury of InventCor 2021

2021: International Specialized Exhibition "INFOINVENT2021"- XVIIth Edition, 17-20 November 2021, Chisinau, Republic of Moldova

Anton FICAI, Denisa FICAI, Ludmila MOTELICA, Ovidiu-Cristian OPREA, Ecaterina ANDRONESCU; **Compositions and process for treating the materials devoted for the manufacturing protective devices with antiviral and antimicrobial activity; A/00244/06.05.2020**

“Gold medal” awarded by the Jury of InfoInvent 2021

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

Codina MOVILEANU, Denisa FICAI, Anton FICAI, Manuela CĂLIN, Maria Florentina ANGHELACHE, Anca Violeta GAFENCU, Gheorghe FUNDUEANU-CONSTANTIN, Mariana PINTEALA, Maya SIMIONESCU, Ecaterina ANDRONESCU; **Sisteme inteligente de nanoparticule pentru internalizare celulară; A/00339/15.06.2021**

“Gold medal” awarded by the Jury of InfoInvent 2021

OPREA Ovidiu Cristian; FICAI Anton; FICAI Denisa; MOTELICA Ludmila; ANDRONESCU Ecaterina; TRUȘCA Roxana Doina; **Composition for restoring paper from documents affected by microorganisms; A00818/09.12.2020**
Silver Medal awarded by International Jury of the Salon

2021: SALONUL internațional de Invenții și Inovații „ProInvent” Cluj Napoca, perioada 20-22 Octombrie 2021

Anton FICAI, Denisa FICAI, Ludmila MOTELICA, Ovidiu-Cristian OPREA, Ecaterina ANDRONESCU; **Compositions and process for treating the materials devoted for the manufacturing protective devices with antiviral and antimicrobial activity; A/00244/06.05.2020**

“Excellence diploma with Gold Medal” awarded by the Jury of ProInvent 2021

Codina MOVILEANU, Denisa FICAI, Anton FICAI, Manuela CĂLIN, Maria Florentina ANGHELACHE, Anca Violeta GAFENCU, Gheorghe FUNDUEANU-CONSTANTIN, Mariana PINTEALA, Maya SIMIONESCU, Ecaterina ANDRONESCU; **Sisteme inteligente de nanoparticule pentru internalizare celulară; A/00339/15.06.2021**

“Excellence diploma with Gold Medal” awarded by the Jury of ProInvent 2021

OPREA Ovidiu Cristian; FICAI Anton; FICAI Denisa; MOTELICA Ludmila; ANDRONESCU Ecaterina; TRUȘCA Roxana Doina; **Composition for restoring paper from documents affected by microorganisms; A00818/09.12.2020**

“Excellence diploma with Gold Medal” awarded by the Jury of ProInvent 2021

2021: SALONUL Internațional de Invenții și Inovații „Traian Vuia” Timișoara, ediția a VII -a, perioada 13-15 octombrie 2021

Anton FICAI, Denisa FICAI, Ludmila MOTELICA, Ovidiu-Cristian OPREA, Ecaterina ANDRONESCU; **Compositions and process for treating the materials devoted for the manufacturing protective devices with antiviral and antimicrobial activity; A/00244/06.05.2020**

“Gold Medal” awarded by the Jury of Traian Vuia 2021

Codina MOVILEANU, Denisa FICAI, Anton FICAI, Manuela CĂLIN, Maria Florentina ANGHELACHE, Anca Violeta GAFENCU, Gheorghe FUNDUEANU-CONSTANTIN, Mariana PINTEALA, Maya SIMIONESCU, Ecaterina ANDRONESCU; **Sisteme inteligente de nanoparticule pentru internalizare celulară; A/00339/15.06.2021**

“Gold Medal” awarded by the Jury of Traian Vuia 2021

OPREA Ovidiu Cristian; FICAI Anton; FICAI Denisa; MOTELICA Ludmila; ANDRONESCU Ecaterina; TRUȘCA Roxana Doina; **Composition for restoring paper from documents affected by microorganisms**; A00818/09.12.2020
“**Gold Medal**” awarded by the Jury of Traian Vuia 2021

Diploma de Excelență pentru participarea în comisia de jurizare

2021: 6th International Invention Innovation Competition in Canada – ICan 2021; August 28, Toronto, Canada

Denisa Ficai, Ioana Lavinia Ardelean, Cornalia Ioana Ilie, Manuela Calin, Elena-Valeria Fuior, Adrian Fifere, Mariana Pinteala, Gheorghe Constantin Fundeanu, Anton Ficai, Maya Simionescu, Ecaterina Andronescu; **Vertical (electro) magnetic separator of isomagnetic nanoparticles**; A/01055/05.12.2018
“**Gold medal**” awarded by the International Jury of ICan 2021
“**Special Award**” awarded by Korea Invention Academy (KiA)

2021: 14th International Invention and Innovation Show, Intarg 2021 15-16 June, online 2021

Anton FICAI, Denisa FICAI, Ludmila MOTELICA, Ovidiu-Cristian OPREA, Ecaterina ANDRONESCU; **Compositions and process for treating the materials devoted for the manufacturing protective devices with antiviral and antimicrobial activity**; A/00244/06.05.2020

Silver Medal awarded by International Jury of the Salon

The Best Foreign Innovation Award

Platinum Award

OPREA Ovidiu Cristian; FICAI Anton; FICAI Denisa; MOTELICA Ludmila; ANDRONESCU Ecaterina; TRUȘCA Roxana Doina; **Composition for restoring paper from documents affected by microorganisms**; A00818/09.12.2020

Silver Medal awarded by International Jury of the Salon

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

2021: 13rd European Exhibition of Creativity and Innovation-EuroInvent 2021, 19-22 May 2021, Iasi(online), Romania

OPREA Ovidiu Cristian; FICAI Anton; FICAI Denisa; MOTELICA Ludmila; ANDRONESCU Ecaterina; TRUȘCA Roxana Doina; **Composition for restoring paper from documents affected by microorganisms**; A00818/09.12.2020

Silver Medal awarded by International Jury of the Salon

Special Prize awarded by ARTA

Georgiana DOLETE, Denisa FICAI, Gheorghe MARIN, Anton FICAI, Paul SVASTA, Ecaterina ANDRONESCU; **Exploitation of the magnetic nanoparticles in developing magnetic micro-devices**;

Bronze Medal awarded by International Jury of the Salon

Liliana MARINESCU, Laura-Florentina BOANTA, Anton FICAI, Denisa FICAI, Ecaterina ANDRONESCU; **Treatment Procedure For Various Natural Or Synthetic Surfaces With The Scope Of Inducing Antimicrobial, Antibiofilm, Antifungal, Antialgic Or Antiviral Activities Based On Nanotechnology**; A/00075/25.02.2021

Silver Medal awarded by International Jury of the Salon

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

2020: SALONUL Internațional de Inventii și Inovații „InventCor” Deva, ediția I, perioada 17-19 December 2020

Anton FICAI, Ecaterina ANDRONESCU, Denisa FICAI, Maria SONMEZ, Ioan Avram NEDELICU, Madalina Georgiana ALBU; **Bone Grafts based on Collagen, Calcium Phosphate and Zinc and Process for their Manufacturing**; RO129822

Creative Award – international Jury

Gold Medal awarded by International Jury of the Salon

Denisa Ficai, Ioana Lavinia Ardelean, Cornalia Ioana Ilie, Manuela Calin, Elena-Valeria Fuior, Adrian Fifere, Mariana Pinteala, Gheorghe Constantin Fundeanu, Anton Ficai, Maya Simionescu, Ecaterina Andronescu; **Vertical (electro)magnetic separator of isomagnetic nanoparticles**; A 01055/05.12.2018

Gold Medal awarded by International Jury of the Salon

Denisa Ficai, Andreea Iliev, Anton Ficai, Violeta Georgeta Trusca, Anca Violeta Gafencu, Sanda-Maria Bucatariu, Gheorghe Constantin Fundeanu, Maya

Simionescu, Ecaterina Andronescu; Polymer vesicles and tubes and related technology of manufacturing; A01054/05.12.2018

Gold Medal awarded by International Jury of the Salon Anton FICAI, Denisa FICAI, Ludmila MOTELICA, Ovidiu-Cristian OPREA, Ecaterina ANDRONESCU; **Compositions and process for treating the materials devoted for the manufacturing protective devices with antiviral and antimicrobial activity**; A/00244/06.05.2020

Gold Medal awarded by International Jury of the Salon OPREA Ovidiu Cristian; FICAI Anton; FICAI Denisa; MOTELICA Ludmila; ANDRONESCU Ecaterina; TRUȘCA Roxana Doina; **Compositions and process for treating paper, parchment or other writing media, for removing pathogens such as fungi, mold or bacteria**; A00798_27.11.2019

Gold Medal awarded by International Jury of the Salon Suciu Alexandru, Semenescu Augustin, Ficai Anton, Suciu Ioan Alexandru; Multifunctional medical device for the treatment of the anorectal pathologies; **RO A00725/2019**

Gold Medal awarded by International Jury of the Salon Suciu Alexandru, Semenescu Augustin, Ficai Anton, Suciu Ioan Alexandru; **Semisolid formulation for combination topical therapy of common, benign anorectal disorders**; **RO A00726/2019**

Gold Medal awarded by International Jury of the Salon

2020: SALONUL internațional de Inventii și Inovații „ProInvent” Cluj Napoca, , perioada 13-15 Octombrie 2020

Special Prize awarded to UPB for all their contribution

Anton FICAI, Denisa FICAI, Ludmila MOTELICA, Ovidiu-Cristian OPREA, Ecaterina ANDRONESCU; **Compositions and process for treating the materials devoted for the manufacturing protective devices with antiviral and antimicrobial activity**; A/00244/06.05.2020

Gold Medal awarded by International Jury of the Salon

OPREA Ovidiu Cristian; FICAI Anton; FICAI Denisa; MOTELICA Ludmila; ANDRONESCU Ecaterina; TRUȘCA Roxana Doina; **Compositions and process for treating paper, parchment or other writing media, for removing pathogens such as fungi, mold or bacteria**; A00798_27.11.2019

Gold Medal awarded by International Jury of the Salon

Gold Medal and Diploma awarded by INFLPR OPREA Ovidiu Cristian; FICAI Anton; FICAI Denisa; MOTELICA Ludmila; ANDRONESCU Ecaterina; TRUȘCA Roxana Doina; **Compositions and process for treating leather-based products for inducing antibacterial and antifungal properties**; A00798_27.11.2019

Gold Medal awarded by International Jury of the Salon

Gold Medal and Diploma awarded by INFLPR

2020: SALONUL internațional de Inventii și Inovații „Traian Vuia” Timișoara, ediția a VI -a, perioada 13-15 octombrie 2020

Anton FICAI, Denisa FICAI, Ludmila MOTELICA, Ovidiu-Cristian OPREA, Ecaterina ANDRONESCU; **Compositions and process for treating the materials devoted for the manufacturing protective devices with antiviral and antimicrobial activity**; A/00244/06.05.2020

Gold Medal awarded by International Jury of the Salon

OPREA Ovidiu Cristian; FICAI Anton; FICAI Denisa; MOTELICA Ludmila; ANDRONESCU Ecaterina; TRUȘCA Roxana Doina; **Compositions and process for treating paper, parchment or other writing media, for removing pathogens such as fungi, mold or bacteria**; A00798_27.11.2019

Gold Medal awarded by International Jury of the Salon

Suciu Alexandru, Semenescu Augustin, Ficai Anton, Suciu Ioan Alexandru; Multifunctional medical device for the treatment of the anorectal pathologies; **RO A00726/2019**

Gold Medal awarded by International Jury of the Salon

Suciu Alexandru, Semenescu Augustin, Ficai Anton, Suciu Ioan Alexandru; **Semisolid formulation for combination topical therapy of common, benign anorectal disorders**; **RO A00726/2019**

Silver Medal awarded by International Jury of the Salon

Excellence Diploma for prof. dr. ing. Anton FICAI for the entire activity

2020: 5th International Invention Innovation Competition in Canada – ICan 2020; August 29, Toronto, Canada

Anton FICAI, Denisa FICAI, Ludmila MOTELICA, Ovidiu-Cristian OPREA, Ecaterina ANDRONESCU; **Compositions and process for treating the**

materials devoted for the manufacturing protective devices with antiviral and antimicrobial activity; A/00244/06.05.2020

“Gold medal” awarded by the International Jury of ICan 2020

“Special Award and Excellence diploma” awarded by TISIAS

2020: 12nd European Exhibition of Creativity and Innovation-EuroInvent 2020, 21-23 May 2020, Iasi, Romania

Anton FICAI, Denisa FICAI, Ludmila MOTELICA, Ovidiu-Cristian OPREA, Ecaterina ANDRONESCU; **Compositions and process for treating the materials devoted for the manufacturing protective devices with antiviral and antimicrobial activity; A/00244/06.05.2020**

Gold Medal awarded by International Jury of EuroInvent 2020

Special Award Universitatea POLITEHNICA Timisoara

Special Award ARTA Sibiu

Special Prize of Petroleum-Gas University of Ploiești

Innovation Award ICECHIM

Special Award - USAMV Bucharest

OPREA Ovidiu Cristian; FICAI Anton; FICAI Denisa; MOTELICA Ludmila; ANDRONESCU Ecaterina; TRUȘCA Roxana Doina; **Compositions and process for treating paper, parchment or other writing media, for removing pathogens such as fungi, mold or bacteria; A00798_27.11.2019**

Silver Medal awarded by International Jury of EuroInvent 2020

Special Award Facultatea de Inginerie din Hunedoara

Special Award INCDP-ICECHIM

Suciu Alexandru, Semenescu Augustin, Ficai Anton, Suciu Ioan Alexandru;

SEMISOLID FORMULATION FOR COMBINATION TOPICAL THERAPY OF COMMON, BENIGNANORECTAL DISORDERS; RO A00726/2019

Silver Medal awarded by International Jury of EuroInvent 2020

Special Award Asociația Corneliu Group

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 Czobor Barbu, Irina Gheorghe, Luminița Măruțescu, Marcela Popa, Ionela Sârbu, Grațiana Grădișteanu, Bianca Trușcă, Anton Ficai, 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 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**

“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 FICAI; Andreea ILIEV; Anton FICAI; Violeta Georgeta TRUSCA; 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 Mechatronic & Cyber - MixMechatronic 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 FICAI, 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: 11^h 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 Inventics – 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, Grațiana Grădișteanu, Bianca Trușcă, Anton Ficai, 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

“**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 Invenții și Inovații “Traian VUIA”, Timișoara, Romania**
- “Gold medal” (for the patent application “Compositions and process for obtaining innovative enzymatic formulations for root canal lavage” authors Anton FICAI, Denisa FICAI, Ovidiu OPREA, Stefan MANEA, Anna-Maria PANGICĂ, Petru BODOGA, Camelia AGAPESCU);
- “Gold Medal” for the patent “*Synthesis procedure of some multifunctional composite materials with potential applications in bone cancer treatment*” authors: A FICAI, E ANDRONESCU, C. D. GHITULICA, D. FICAI, Georgeta VOICU, G. M. ALBU
- “Bronze Medal” (for the patent application “Bone grafts based on collagen, calcium phosphate and zinc and process for their manufacturing” authors A. FICAI, E. ANDRONESCU, D. FICAI, M. SONMEZ, I. A. 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 Testemițanu”, Moldova (for the patent application “Bone grafts based on collagen, calcium phosphate and zinc and process for their manufacturing” authors A. Fikai, E. Andronescu, D. Fikai, 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 NEDELUCU; 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 NEDELUCU; 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 NEDELUCU; 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 potenziale aplicatii în tratarea cancerului osos, Patent No. 127725/30. 03. 2015)
- 2012: Prize: “Best Published Paper–2009” awarded by Syscomm–“Materiale Plastice”
- 2011: Prize: “In tempore opportuno” awarded by University POLITEHNICA of Bucharest

- 2005: Valedictorian diploma awarded by University POLITEHNICA of Bucharest/ Faculty of Applied Chemistry and Materials Science
- 2005: 2nd Prize: Annual Session of Scientific Communications - Analytic Chemistry Section awarded by University POLITEHNICA of Bucharest– Faculty of Applied Chemistry and Materials Science
- 2005: 2nd Prize: Annual Session of Scientific Communications – Organic Chemistry Section awarded by University POLITEHNICA of Bucharest– Faculty of Applied Chemistry and Materials Science
- 2004: 2nd Prize: Annual Session of Scientific Communications – CD 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

- 2022: 6th International Congress on 3D Printing (Additive Manufacturing) Technologies and Digital Industry 2022 (hybrid); 22-23 November, 2022 Bucharest, Romania
- 2022: Virtual International Scientific Conference on “Applications of Chemistry in Nanosciences and Biomaterials Engineering – NanoBioMat 2022”, 24-26 November 2022;
- 2022: International Symposium of Chemical Engineering and Materials SICHEM 2022, 17-18 November 2022;
- 2022: Virtual International Scientific Conference on “Applications of Chemistry in Nanosciences and Biomaterials Engineering – NanoBioMat 2022”, 22-24 June 2022;
- 2022: 35th International Conference on Nanomaterials and Nanotechnology; March 25-26, 2022 Berlin, Germany;
- 2022: Conferința Științifico-Practică Internațională „Instruire prin Cercetare pentru o Societate Prosperă”, ediția a IX-a; Chișinău, 19 – 20 martie 2022;
- 2021: Virtual International Scientific Conference on “Applications of Chemistry in Nanosciences and Biomaterials Engineering – NanoBioMat 2021” 25-26 June and 25-27 November 2021;
- 2021: A XIII-a Conferință de Știința și Ingineria Materialelor Oxidice, CONSILOX, Alba Iulia, România 1-3 Octombrie 2021;
- 2021: Conferința științifică internațională „Abordări Inter/ Trans-disciplinare în Predarea Științelor Reale, (Concept STEAM)”; Republica Moldova, Chișinău, 29 - 30 octombrie 2021;
- 2020: The 8 International Conference on Advanced Materials and Systems, 1-3 October, Bucharest, ROMANIA;
- 2020: International Symposium of Chemical Engineering and Materials SICHEM 2020; 17-18 September 2020, Bucharest;
- 2020: Simpozionul internațional “Prioritățile Chimiei pentru o Dezvoltare Durabila”, PrioChem Editia XVI, Bucuresti, 28-30 Octombrie 2020;
- 2020: 10th International Conference on Environmental Pollution and Remediation (ICEPR'20); 19-21 August 2020, Prague, Czech Republic;
- 2019: Școala De Vară: “Nanoparticule inteligente pentru livrarea direcționată de compuși bioactivi: preparare, caracterizare și aplicații”; 23-24 mai 2019;
- 2018: International Symposium of Chemical Engineering and Materials SICHEM 2018, 6-7 September, Bucharest, Romania;
- 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 OrtoCycle Co. Hollywood, Florida, USA; Improving dental adhesives
- Graduation certificate of the courses for operation and use of GC, HPLC, GC-MS, LC-MS, UV-Vis, FTIR spectroscope and microscope, ICP-OES, ICP-MS, AAS

30.01.2023

Anton FICAI

Anton FICAI

PHD THESIS: Composite Biomaterials based on Collagen and Hydroxyapatite

POSTDOCTORAL THESIS: Composite Biomaterials

BOOKS AND CHAPTERS

1. Angela Spoială, Cornelia-Ioana Ilie, Denisa Ficai, Anton Ficai; Chapter 2. A Review of Soil Phytoremediation Technologies; in *Pesticide Residues: Chemistry, Toxicology and Environmental Impact*; David J. Goode (Editor); pg 63 – 89; ISBN: 979-8-88697-557-4 (**English**)
2. Alina Moroșan; Alexa-Maria Croitoru; Georgiana Dolete; Angela Spoială; Denisa Ficai; Anton Ficai; Mariana Carmen Chifiriuc. Nanotechnologies - A Modern Approach against the Development of Bacterial Resistance; Austin Publishing Group. Vol. 1, Chapter 3, pp. 39-48. (**English**)
3. **Anton Ficai**, Alexandru Grumezescu (Editors); Nanostructures for Antimicrobial Therapy; Elsevier Science Publishing Co Inc; 722pages; ISBN 0323461522; 2017; (**English**)
4. *Alexandru Mihai Grumezescu, Anton Ficai (Editors); Nanostructures for Cancer Therapy; Elsevier Science Publishing Co Inc; 920pages; ISBN 0323461522; 2017; (English)*
5. 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; (**English**)
6. 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; (English)*
7. 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; (English)*
8. **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**);
9. DENISA FICAI, **ANTON FICAI**, ECATERINA ANDRONESCU; Advances in Cancer Treatment; Role of Nanoparticles; INTECH, 2015, 1-21 (**English**);
10. 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**);
11. 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**);
12. 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**);
13. 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**);
14. **Anton FICAI**, Ecaterina ANDRONESCU; Biomateriale compozite pe bază de colagen și hidroxiapatită utilizate în reconstrucția osoasă (*Collagen and hydroxyapatite based composite biomaterials for bony tissue reconstruction*); Politehnica Press, 2011; ISBN: 978-606-515-257-1 (180 pages, **Romanian**);
15. **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**);
16. **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**);
17. 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**);
18. Ion ION, Alina Catrinel ION și **Anton FICAI**, **Probleme de chimie analitică**, Ed. Cartea Universitară, 2003, ISBN: 973-7956-11-7 (**Romanian**);
19. 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. 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

2. **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; [RO133758 \(B1\)](#).
3. SONMEZ Maria; FICAI Denisa; CONSTANTINESCU Doina; ALEXANDRESCU Laurenția; GEORGESCU Mihai; FICAI Anton; STELESCU Maria Daniela; Compozit polimeric hibrid pe bază de polietilen tereftalat reciclat, armat cu fibre naturale funcționalizate; [RO133422 \(B1\)](#);
4. 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](#)
5. **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 obținere a unor materiale compozite, multifuncționale, cu potențiale aplicații în tratarea cancerului osos, Patent No. RO127725/30. 03. 2015 issued by OSIM; [RO127725B1](#);
6. 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](#);
7. 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](#));
8. **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](#);
9. Denisa Ficai, **Anton Ficai**, Cornelia Guran, Ecaterina Andronescu, Technology for obtaining functionalized magnetic systems / Tehnologie de obținere a unor sisteme magnetice funcționalizate, No: A00164/2011; (RO127889 (A2); RO127889 (B1)).

PATENT APPLICATIONS:

10. Cornelia-Ioana ILIE, Angela SPOIALA, Ludmila MOTELICA, Denisa FICAI, Ovidiu-Cristian OPREA; Anton Ficai, Procedeu de modificare strat cu strat a suprafeței de sticlă; A00797/06/12/2022
11. Toma FISTOS, Radu Claudiu FIERASCU, Roxana Ioana BRAZDIS, Anda-Maria BAROI, Irina FIERASCU, Mihaela Alina MELINESCU, Anton FICAI, Denisa FICAI, Lia Mara DITU, Carmen CURUTIU, Acoperire hidrofoba cu proprietati de autocuratare si antimicrobiene pentru elementele artificiale ale constructiilor vernaculare si procedeu de obținere a acesteia; A/00773/28.11.2022
12. Marin GHEORGHE, Anton FICAI, Ecaterina ANDRONESCU, Denisa FICAI, Deorgiana DOLETE, Bodan MIHAILESCU, Micropompa electromagnetica si procedeu de realizare a acesteia; A00774/10.12.2021;
13. Denisa FICAI, Georgiana DOLETE, Alexa-Maria CROITORU, Marcela POPA, Laura-Florentina BOANȚĂ, Dan Eduard MIHAIESCU, Anton FICAI, Ecaterina ANDRONESCU, Carmen CHIFIRIUC; Tehnologie de tratare a apelor uzate de la nivelul stațiilor de epurare cu potential ridicat de antibiotic, pesticide sau alte substanțe biologice active; A/00707/24.11.2021;
14. Ovidiu-Cristian OPREA, Anton FICAI, Denisa FICAI, Ludmila MOTELICA, Ecaterina ANDRONESCU, Roxana Doina TRUȘCĂ; Antimicrobial Compositions based on cellulose and ZnO loaded with Citronellol for restoring paper from documents affected by the microorganisms / Compoziții antimicrobiene pe bază de celuloză și ZnO încărcate cu Citronellol pentru restaurarea hârtiei din documente afectate de microorganisme; A/00615/06.10.2021
15. Codina MOVILEANU, Denisa FICAI, Anton FICAI, Manuela CĂLIN, Maria Florentina ANGHELACHE, Anca Violeta GAFENCU, Gheorghe FUNDUEANU-CONSTANTIN, Mariana PINTEALA, Maya SIMIONESCU, Ecaterina ANDRONESCU; Sisteme inteligente de nanoparticule pentru internalizare celulară; A/00339/15.06.2021
16. Liliana MARINESCU, Laura – Florentina BOANȚĂ, Anton FICAI, Denisa FICAI, Ecaterina ANDRONESCU, Mariana Carmen CHIFIRIUC, Alina-Maria HOLBAN; Siloxane-based solution for the cleaning and conservation of the natural and synthetic surfaces / Soluții de impregnare pe bază de siloxani cu rol de curățare și conservare pentru substraturi naturale și sintetice; A/00356 / 22.06.2021
17. Liliana MARINESCU, Laura-Florentina BOANTA, Anton FICAI, Denisa FICAI, Ecaterina ANDRONESCU, Procedeu de tratament a diverselor substraturi naturale sau sintetice în vederea inducerii de activități antimicrobiene, antibiofilm, antifungice, antialgice sau chiar antivirale bazate pe nanotehnologii; A/00075/25.02.2021
18. Anton FICAI, Denisa FICAI, Ludmila MOTELICA, Ovidiu-Cristian OPREA, Ecaterina ANDRONESCU; Compoziții și procedeu de tratare a materialelor destinate dezvoltării de dispozitive (medicale) de protecție cu rol antiviral și antimicrobian; OSIM, A/00244/06.05.2020.
19. SUCIU Alexandru; SEMENESCU Augustin; FICAI Anton; SUCIU Ioan Alexandru; Dispozitiv medical multifuncțional pentru tratamentul patologiei anorectale; RO134021 (A0) — 2020-04-30
20. SUCIU Alexandru, SEMENESCU Augustin, FICAI Anton, SUCIU Ioan Alexandru; Preparat farmaceutic semisolid pentru terapia topică combinată a patologiei anorectale;

21. 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;
22. Ovidiu-Cristian OPREA, Anton FICAI, Denisa FICAI, Ludmila MOTELICA, Roxana TRUȘCĂ, Ecaterina ANDRONESCU; “Compoziții și procedeu de tratare a obiectelor din piele pentru conferirea activității antibacteriene și antifungice”; A00794 /27.11.2019;
23. 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 Fikai**; 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; RO134197 (A2) / 2020-06-30;
24. **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;
25. 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;
26. 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;
27. **Anton Fikai**, Madalina Georgiana Albu-Kaya, Denisa Fikai, 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.
28. **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
29. 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;
30. **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;
31. Chifiriuc Mariana Carmen; Ditu Lia Mara; Fikai Anton; Fikai Denisa; Grosu Elena; Rapa Maria; Ulinici Sorin Claudiu; Chifiriuc Mariana Carmen; Ditu Lia Mara; Fikai Anton; Fikai 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](#)
32. **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 370 papers from which 263 entries in ISI Web of Science; citations >3500; Hirsh index 33 (ISI Thomson).

1. A.F. Vladu, D. Fikai, A.G. Ene, A. Fikai, Combination Therapy Using Polyphenols: An Efficient Way to Improve Antitumoral Activity and Reduce Resistance, *Int J Mol Sci* 23(18) (2022).
2. A. Spoială, C.I. Ilie, D. Fikai, A. Fikai, E. Andronescu, From Biomedical Applications of Alginate towards CVD Implications Linked to COVID-19, *Pharmaceuticals-Base* 15(3) (2022).
3. A. Spoială, C.I. Ilie, G. Dolete, R.D. Trușcă, L. Motelică, O.C. Oprea, D. Fikai, A. Fikai, E. Andronescu, L.M. Dițu, The development of antimicrobial chitosan/zno nanocomposite membranes for water purification, *Rev. Rom. Mater. Rom. J. Mater* 52(1) (2022) 17-25.
4. A. Spoială, C.I. Ilie, G. Dolete, A.M. Croitoru, V.A. Surdu, R.D. Trușcă, L. Motelica, O.C. Oprea, D. Fikai, A. Fikai, E. Andronescu, L.M. Dițu, Preparation and Characterization of Chitosan/TiO₂ Composite Membranes as Adsorbent Materials for Water Purification, *Membranes-Basel* 12(8) (2022).
5. G.M.L. Popa, L. Motelica, R.D. Trusca, C.I. Ilie, D. Fikai, O. Oprea, A. Stoica-Guzun, A. Fikai, G. Constantinescu, L.M. Ditu, Bacterial cellulose membranes loaded with cinnamon essential oil, *UPB Sci Bull Ser B* 84(4) (2022) 21-32.
6. G. Petrisor, L. Motelica, D. Fikai, R.D. Trusca, V.A. Surdu, G. Voicu, O.C. Oprea, A. Fikai, E. Andronescu, New Mesoporous Silica Materials Loaded with Polyphenols: Caffeic Acid, Ferulic Acid and p-Coumaric Acid as Dietary Supplements for Oral Administration, *Materials* 15(22) (2022).
7. G. Petrisor, L. Motelica, L.N. Craciun, O.C. Oprea, D. Fikai, A. Fikai, *Melissa officinalis*: Composition, Pharmacological Effects and Derived Release Systems—A Review, *Int J Mol Sci* 23(7) (2022).

8. G. Petrisor, D. Ficai, L. Motelica, R.D. Trusca, A.C. Bîrcă, B.S. Vasile, G. Voicu, O.C. Oprea, A. Semenescu, A. Ficai, M.I. Popitui, I. Fierascu, R.C. Fierascu, E.L. Radu, L. Matei, L.D. Dragu, I.M. Pitica, M. Economescu, C. Bleotu, Mesoporous Silica Materials Loaded with Gallic Acid with Antimicrobial Potential, *Nanomaterials-Basel* 12(10) (2022).
9. M. Oprea, A. Ficai, C. Ilie, R. Truşcă, O.C. Oprea, O.S. Şerbănescu, Ş.I. Voicu, Zinc-loaded cellulose acetate membranes with potential biomedical applications, *UPB Sci Bull Ser B* 84(2) (2022) 15-30.
10. C. Movileanu, M. Anghelache, M. Turtoi, G. Voicu, I.A. Neacsu, D. Ficai, R. Trusca, O. Oprea, A. Ficai, E. Andronescu, M. Calin, Folic acid-decorated PEGylated magnetite nanoparticles as efficient drug carriers to tumor cells overexpressing folic acid receptor, *Int J Pharmaceut* 625 (2022).
11. L. Marinescu, D. Ficai, A. Ficai, O. Oprea, A.I. Nicoara, B.S. Vasile, L. Boanta, A. Marin, E. Andronescu, A.M. Holban, Comparative Antimicrobial Activity of Silver Nanoparticles Obtained by Wet Chemical Reduction and Solvothermal Methods, *Int J Mol Sci* 23(11) (2022).
12. H. Izgis, E. Ilhan, C. Kalkandelen, E. Celen, M.M. Guncu, H. Turkoglu Sasmazel, O. Gunduz, D. Ficai, A. Ficai, G. Constantinescu, Manufacturing of Zinc Oxide Nanoparticle (ZnO NP)-Loaded Polyvinyl Alcohol (PVA) Nanostructured Mats Using Ginger Extract for Tissue Engineering Applications, *Nanomaterials-Basel* 12(17) (2022).
13. C.I. Ilie, A. Spoială, D. Ficai, A.I. Nicoară, O.C. Oprea, V.A. Surdu, R.D. Truşcă, E. Andronescu, L.M. Diţu, A. Ficai, Magnetic platforms based on magnetite and polyphenols with antimicrobial activity, *UPB Sci Bull Ser B* 84(4) (2022) 45-58.
14. C.I. Ilie, E. Oprea, E.I. Geana, A. Spoiala, M. Buleandra, G.G. Pircalabioru, I.A. Badea, D. Ficai, E. Andronescu, A. Ficai, L.M. Ditu, Bee Pollen Extracts: Chemical Composition, Antioxidant Properties, and Effect on the Growth of Selected Probiotic and Pathogenic Bacteria, *Antioxidants-Basel* 11(5) (2022).
15. V. Grumezescu, A.M. Grumezescu, A. Ficai, I. Negut, B.Ū. Vasile, B. Gălăţeanu, A. Hudîţă, Composite Coatings for Osteoblast Growth Attachment Fabricated by Matrix-Assisted Pulsed Laser Evaporation, *Polymers-Basel* 14(14) (2022).
16. D.Ficai, M. Gheorghe, G. Dolete, B. Mihailescu, P. Svasta, A. Ficai, G. Constantinescu, E. Andronescu, Microelectromechanical Systems Based on Magnetic Polymer Films, *Micromachines-Basel* 13(3) (2022).
17. G. Dolete, B. Purcăreanu, D.E. Mihaiescu, D. Ficai, O.C. Oprea, A.C. Bîrcă, C. Chircov, B.Ū. Vasile, G. Vasilievici, A. Ficai, E. Andronescu, A Comparative Loading and Release Study of Vancomycin from a Green Mesoporous Silica, *Molecules* 27(17) (2022).
18. G. Dolete, C. Chircov, L. Motelica, D. Ficai, O.C. Oprea, M. Gheorghe, A. Ficai, E. Andronescu, Magneto-Mechanically Triggered Thick Films for Drug Delivery Micropumps, *Nanomaterials-Basel* 12(20) (2022).
19. A.M. Croitoru, A. Moroşan, B. Tihăuan, O. Oprea, L. Motelică, R. Truşcă, A.I. Nicoară, R.C. Popescu, D. Savu, D.E. Mihăiescu, A. Ficai, Novel Graphene Oxide/Quercetin and Graphene Oxide/Juglone Nanostructured Platforms as Effective Drug Delivery Systems with Biomedical Applications, *Nanomaterials-Basel* 12(11) (2022).
20. A.C. Burduşel, O. Gherasim, E. Andronescu, A.M. Grumezescu, A. Ficai, Inorganic Nanoparticles in Bone Healing Applications, *Pharmaceutics* 14(4) (2022).
21. R. Bucuresteanu, M. Ionita, V. Chihaia, A. Ficai, R.D. Trusca, C.I. Ilie, A. Kuncser, A.M. Holban, G. Mihaescu, G. Petcu, A. Nicolae, R.M. Costescu, M. Husch, V. Parvulescu, L.M. Ditu, Antimicrobial Properties of TiO₂ Microparticles Coated with Ca- and Cu-Based Composite Layers, *Int J Mol Sci* 23(13) (2022).
22. M. Ayrancı, A.Y. Dirican, E. Saatcioglu, S. Ulag, A. Sahin, B. Aksu, A.M. Croitoru, D. Ficai, O. Gunduz, A. Ficai, 3D-Printed PCL Scaffolds Combined with Juglone for Skin Tissue Engineering, *Bioeng.* 9(9) (2022).
23. Altan, Y. Karacelebi, E. Saatcioglu, S. Ulag, A. Sahin, B. Aksu, A.M. Croitoru, C.I. Codrea, D. Ficai, O. Gunduz, A. Ficai, Fabrication of Electrospun Juglans regia (Juglone) Loaded Poly(lactic acid) Scaffolds as a Potential Wound Dressing Material, *Polymers-Basel* 14(10) (2022).
24. C.F. Alistar, I.C. Nica, M. Nita-Lazar, G.G. Vasile, S. Gheorghe, A.M. Croitoru, G. Dolete, D.E. Mihaiescu, A. Ficai, N. Craciun, G.G. Pircalabioru, M.C. Chifiriuc, M.S. Stan, A. Dinischiotu, Antioxidative Defense and Gut Microbial Changes under Pollution Stress in *Carassius gibelio* from Bucharest Lakes, *Int J Env Res Pub He* 19(12) (2022).
25. I.M. Vlad, D.C. Nuta, R.V. Ancuceanu, M.T. Caproiu, F. Dumitrascu, I.C. Marinas, M.C. Chifiriuc, L.G. Marutescu, I. Zarafu, I.R. Papacocea, B.S. Vasile, A.I. Nicoara, C.I. Ilie, A. Ficai, C. Limban, New O-Aryl-Carbamoyl-Oxymino-Fluorene Derivatives with MI-Crocidicidal and Antibiofilm Activity Enhanced by Combination with Iron Oxide Nanoparticles, *Molecules* 26(10) (2021).
26. P. Varasteanu, A. Radoi, O. Tutunaru, A. Ficai, R. Pascu, M. Kusko, I. Mihalache, Plasmon-Enhanced Photoresponse of Self-Powered Si Nanoholes Photodetector by Metal Nanowires, *Nanomaterials-Basel* 11(9) (2021).
27. S. Ulag, E. Ilhan, R. Demirhan, A. Sahin, B.K. Yilmaz, B. Aksu, M. Sengor, D. Ficai, A.M. Titu, A. Ficai, O. Gunduz, Propolis-Based Nanofiber Patches to Repair Corneal Microbial Keratitis, *Molecules* 26(9) (2021).
28. O. Tutunaru, C.M. Mihailescu, M. Savin, B.C. Tincu, M.C. Stoian, G.S. Muscalu, B. Firtat, S. Dinulescu, G. Craciun, C.A. Moldovan, A. Ficai, A.C. Ion, Acetylcholinesterase entrapment onto carboxyl-modified single-walled carbon nanotubes and poly (3,4-ethylenedioxythiophene) nanocomposite, film electrosynthesis characterization, and sensor application for dichlorvos detection in apple juice, *Microchem J* 169 (2021).

29. R.E. Tiplea, G.M. Lemnar, R.D. Trusca, A. Holban, M.G.A. Kaya, L.D. Dragu, D. Fikai, A. Fikai, C. Bleotu, Antimicrobial Films based on Chitosan, Collagen, and ZnO for Skin Tissue Regeneration, *Biointerface Res App* 11(4) (2021) 11985-11995.
30. M.E. Tasci, B. Dede, E. Tabak, A. Gur, R.B. Sulutas, S. Cesur, E. Ilhan, C.C. Lin, P. Paik, D. Fikai, A. Fikai, O. Gunduz, Production, Optimization and Characterization of Polylactic Acid Microparticles Using Electrospay with Porous Structure, *Appl Sci-Basel* 11(11) (2021).
31. A. Spoiala, C.I. Ilie, R.D. Trusca, O.C. Oprea, V.A. Surdu, B.S. Vasile, A. Fikai, D. Fikai, E. Andronescu, L.M. Ditu, Zinc Oxide Nanoparticles for Water Purification, *Materials* 14(16) (2021).
32. A. Spoiala, C.I. Ilie, D. Fikai, A. Fikai, E. Andronescu, Chitosan-Based Nanocomposite Polymeric Membranes for Water Purification-A Review, *Materials* 14(9) (2021).
33. A. Spoiala, C.I. Ilie, L.N. Craciun, D. Fikai, A. Fikai, E. Andronescu, Magnetite-Silica Core/Shell Nanostructures: From Surface Functionalization towards Biomedical Applications-A Review, *Appl Sci-Basel* 11(22) (2021).
34. E. Saylam, Y. Akkaya, E. Ilhan, S. Cesur, E. Guler, A. Sahin, M.E. Cam, N. Ekren, F.N. Oktar, O. Gunduz, D. Fikai, A. Fikai, Levodopa-Loaded 3D-Printed Poly (Lactic) Acid/Chitosan Neural Tissue Scaffold as a Promising Drug Delivery System for the Treatment of Parkinson's Disease, *Appl Sci-Basel* 11(22) (2021).
35. M. Saqib, O.S. Kuzmin, H. Kraskiewicz, L. Wasyluk, G. Cuniberti, A.A. Fikai, V.F. Pichugin, J. Opitz, N. Beshchasna, Evaluation of in Vitro Corrosion Behavior of Titanium Oxynitride Coated Stainless Steel Stents, *Ieee Access* 9 (2021) 59766-59782.
36. A.V. Paduraru, O. Oprea, A.M. Musuc, B.S. Vasile, A. Fikai, E. Andronescu, Photoluminescent Nanomaterials Based on Europium Doped Hydroxyapatite, *Rev Rom Mater* 51(3) (2021) 353-360.
37. I.A. Neacsu, L. Matei, A.C. Birca, A.I. Nicoara, V.L. Ene, L.D. Dragu, A. Fikai, C. Bleotu, E. Andronescu, Curcumin - Hydroxyapatite Systems Used for Bone Cancer Treatment, *Rev Rom Mater* 51(4) (2021) 505-513.
38. I.A. Neacsu, S.A. Leau, S. Marin, A.M. Holban, B.S. Vasile, A.I. Nicoara, V.L. Ene, C. Bleotu, M.G.A. Kaya, A. Fikai, Collagen-Carboxymethylcellulose Biocomposite Wound-Dressings with Antimicrobial Activity, *Materials* 14(5) (2021).
39. L. Motelica, D. Fikai, O.C. Oprea, A. Fikai, V.L. Ene, B.S. Vasile, E. Andronescu, A.M. Holban, Antibacterial Biodegradable Films Based on Alginate with Silver Nanoparticles and Lemongrass Essential Oil-Innovative Packaging for Cheese, *Nanomaterials-Basel* 11(9) (2021).
40. L. Motelica, D. Fikai, O. Oprea, A. Fikai, R.D. Trusca, E. Andronescu, A.M. Holban, Biodegradable Alginate Films with ZnO Nanoparticles and Citronella Essential Oil-A Novel Antimicrobial Structure, *Pharmaceutics* 13(7) (2021).
41. M. Maximov, O.C. Maximov, L. Craciun, D. Fikai, A. Fikai, E. Andronescu, Bioactive Glass-An Extensive Study of the Preparation and Coating Methods, *Coatings* 11(11) (2021).
42. O. Gherasim, A.M. Grumezescu, A. Fikai, V. Grumezescu, A.M. Holban, B. Galateanu, A. Hudita, Composite P(3HB-3HV)-CS Spheres for Enhanced Antibiotic Efficiency, *Polymers-Basel* 13(6) (2021).
43. E.I. Geana, C.T. Ciucure, R.E. Ionete, A. Ciocarlan, A. Aricu, A. Fikai, E. Andronescu, Profiling of Phenolic Compounds and Triterpene Acids of Twelve Apple (*Malus domestica* Borkh.) Cultivars, *Foods* 10(2) (2021).
44. R.C. Fierascu, E. Sassoni, A.C. Ion, A. Fikai, E. Sieniawska, Editorial: Degradation of Cultural Heritage Artifacts: From Archaeometry to Materials Development, *Front Mater* 8 (2021).
45. I. Fierascu, R.C. Fierascu, T. Fistos, L. Motelica, O. Oprea, A. Nicoara, A. Fikai, A. Stirban, M.S. Zgarciu, Non-invasive microanalysis of a written page from the Romanian heritage "The Homiliary of Varlaam (Cazania lui Varlaam)", *Microchem J* 168 (2021).
46. C.R. Dumitrescu, I.A. Neacsu, V.A. Surdu, A.I. Nicoara, F. Iordache, R. Trusca, L.T. Ciocan, A. Fikai, E. Andronescu, Nano-Hydroxyapatite vs. Xenografts: Synthesis, Characterization, and In Vitro Behavior, *Nanomaterials-Basel* 11(9) (2021).
47. A.M. Croitoru, O.D. Oprea, B.M. Tihauan, A.I. Nicoara, R. Trusca, A. Fikai, Gallic Acid Loaded Graphene Oxide Material as an Effective Antibacterial Nanocarrier, *U Politeh Buch Ser B* 83(3) (2021) 13-24.
48. A.M. Croitoru, Y. Karacelebi, E. Saatcioglu, E. Altan, S. Ulag, H.K. Aydogan, A. Sahin, L. Motelica, O. Oprea, B.M. Tihauan, R.C. Popescu, D. Savu, R. Trusca, D. Fikai, O. Gunduz, A. Fikai, Electrically Triggered Drug Delivery from Novel Electrospun Poly(Lactic Acid)/Graphene Oxide/Quercetin Fibrous Scaffolds for Wound Dressing Applications, *Pharmaceutics* 13(7) (2021).
49. C.I. Codrea, A.M. Croitoru, C.C. Baci, A. Melinescu, D. Fikai, V. Fruth, A. Fikai, Advances in Osteoporotic Bone Tissue Engineering, *J Clin Med* 10(2) (2021).
50. L. Bandici, G. Banu, A. Fikai, D. Fikai, The use of microwaves in the process of obtaining nanopowders, *J Microwave Power Ee* 55(2) (2021) 107-127.
51. E. Altun, E. Yuca, N. Ekren, D.M. Kalaskar, D. Fikai, G. Dolete, A. Fikai, O. Gunduz, Kinetic Release Studies of Antibiotic Patches for Local Transdermal Delivery, *Pharmaceutics* 13(5) (2021).

52. Vladu, A. F., Marin, S., Neacsu, I. A., Trusca, R. D., Kaya, M. G. A., Kaya, D. A., Popa, A. M., Poiana, C., Cristescu, I., Orlov, C., Ficai, D., Ficai, A., Udeanu, D. I., Velescu, B. S., Nikolouzakis, T. K., Gurevich, L., Kuskov, A. N., and Nitipir, C. (2020) Spongy Fillers Based on Collagen - Hydroxyapatite - Eugenol Acetate with Therapeutic Potential in Bone Cancer, *Farmacia*, 68, 313-321.
53. Unal, S., Arslan, S., Yilmaz, B. K., Oktar, F. N., Ficai, D., Ficai, A., and Gunduz, O. (2020) Polycaprolactone/Gelatin/Hyaluronic Acid Electrospun Scaffolds to Mimic Glioblastoma Extracellular Matrix, *Mater.*, 13.
54. Preda, P., Avram, M., Stan, D., Romanitan, C., Craciun, G., Simion, M., Mihalache, I., and Ficai, A. (2020) Biogenic synthesis of silver nanoparticles using sea buckthorn fruits aqueous extract and antibacterial activity against *Staphylococcus aureus* and *Pseudomonas aeruginosa*, *Int Semiconduct Con*, 203-206.
55. Mutlu, E. C., Yildirim, A. B., Yildirm, M., Ficai, A., Ficai, D., Oktar, F. N., Titu, M., Cetinkaya, A., and Demir, A. (2020) Improvement of antibacterial and biocompatibility properties of electrospray biopolymer films by ZnO and MCM-41, *Polym. Bull.*, 77, 3657-3675.
56. Motelica, L., Marinof, L., Holban, A., Vasile, B. S., and Ficai, A. (2020) Optical, Photocatalytic and Antibacterial Properties of Zinc Oxide Nanoparticles Obtained by a Solvothermal Method, *U Politeh Buch Ser B*, 82, 59-70.
57. Motelica, L., Ficai, D., Oprea, O. C., Ficai, A., and Andronescu, E. (2020) Smart Food Packaging Designed by Nanotechnological and Drug Delivery Approaches, *Coatings*, 10.
58. Motelica, L., Ficai, D., Ficai, A., Trusca, R. D., Ilie, C. I., Oprea, O. C., and Andronescu, E. (2020) Innovative Antimicrobial Chitosan/ZnO/Ag NPs/Citronella Essential Oil Nanocomposite - Potential Coating for Grapes, *Foods*, 9.
59. Motelica, L., Ficai, D., Ficai, A., Oprea, O. C., Kaya, D. A., and Andronescu, E. (2020) Biodegradable Antimicrobial Food Packaging: Trends and Perspectives, *Foods*, 9.
60. Marinescu, L., Ficai, D., Oprea, O., Marin, A., Ficai, A., Andronescu, E., and Holban, A. M. (2020) Optimized Synthesis Approaches of Metal Nanoparticles with Antimicrobial Applications, *J Nanomater*, 2020.
61. Lemnaru, G. M., Trusca, R. D., Ilie, C. I., Tiplea, R. E., Ficai, D., Oprea, O., Stoica-Guzun, A., Ficai, A., and Ditu, L. M. (2020) Antibacterial Activity of Bacterial Cellulose Loaded with Bacitracin and Amoxicillin: In Vitro Studies, *Molecules*, 25.
62. Iacob, A. T., Dragan, M., Ionescu, O. M., Profire, L., Ficai, A., Andronescu, E., Georgeta, L., and Lupascu, D. (2020) An Overview of Biopolymeric Electrospun Nanofibers Based on Polysaccharides for Wound Healing Management, *Pharmaceutics*, 12.
63. Fundueanu, G., Constantin, M., Bucatariu, S., Nicolescu, A., Ascenzi, P., Moise, L. G., Tudor, L., Trusca, V. G., Gafencu, A. V., Ficai, D., Ficai, A., and Andronescu, E. (2020) Simple and dual cross-linked chitosan millicapsules as a particulate support for cell culture, *Int. J. Biol. Macromol.*, 143, 200-212.
64. Ficai, A. (2020) Design and Performances of Medical Devices: From Bulk to Surface Modification, *Curr. Med. Chem.*, 27, 1579-1579.
65. Duta, O. C., Titu, A. M., Marin, A., Ficai, A., Ficai, D., and Andronescu, E. (2020) Surface Modification of Poly(Vinylchloride) for Manufacturing Advanced Catheters, *Curr. Med. Chem.*, 27, 1616-1633.
66. Duta, O. C., Ficai, A., Ficai, D., Trusca, R. D., Grosu, E., Ditu, L. M., Mihaescu, G., Chihriuc, M. C., and Andronescu, E. (2020) Pvc Modification by Incorporating Silver Nanoparticles on the Surface, *U Politeh Buch Ser B*, 82, 85-100.
67. Croitoru, A. M., Ficai, D., Ficai, A., Mihailescu, N., Andronescu, E., and Turculet, C. F. (2020) Nanostructured Fibers Containing Natural or Synthetic Bioactive Compounds in Wound Dressing Applications, *Mater.*, 13.
68. Croitoru, A. M., Ficai, A., Ficai, D., Trusca, R., Dolete, G., Andronescu, E., and Turculet, S. C. (2020) Chitosan/Graphene Oxide Nanocomposite Membranes as Adsorbents with Applications in Water Purification, *Mater.*, 13.
69. Ciocilteu, M. V., Filip, O. L., Manda, C. V., Nicolaescu, O. E., Neacsu, I. A., Ficai, A., Buzatu, I. M., Nicolicescu, C., Croitoru, O., and Neamtu, J. (2020) Physico-Chemical Characterization and Antibacterial Activity of a Controlled Collagen-Hydroxyapatite-Ciprofloxacin Release System, *Farmacia*, 68, 1055-1061.
70. Chircov, C., Spoiala, A., Paun, C., Craciun, L., Ficai, D., Ficai, A., Andronescu, E., and Turculet, S. C. (2020) Mesoporous Silica Platforms with Potential Applications in Release and Adsorption of Active Agents, *Molecules*, 25.
71. Beshchasna, N., Saqib, M., Kraskiewicz, H., Wasyluk, L., Kuzmin, O., Duta, O. C., Ficai, D., Ghizdavet, Z., Marin, A., Ficai, A., Sun, Z. L., Pichugin, V. F., Opitz, J., and Andronescu, E. (2020) Recent Advances in Manufacturing Innovative Stents, *Pharmaceutics*, 12.

72. Bas, M., Daglilar, S., Kuskonmaz, N., Kalkandelen, C., Erdemir, G., Kuruca, S. E., Tulyaganov, D., Yoshioka, T., Gunduz, O., Ficai, D., and Ficai, A. (2020) Mechanical and Biocompatibility Properties of Calcium Phosphate Bioceramics Derived from Salmon Fish Bone Wastes, *Int J Mol Sci*, 21.
73. Aranci, K., Uzun, M., Su, S. N., Cesur, S., Ulag, S., Amin, A., Guncu, M. M., Aksu, B., Kolayli, S., Ustundag, C. B., Silva, J. C., Ficai, D., Ficai, A., and Gunduz, O. (2020) 3D Propolis-Sodium Alginate Scaffolds: Influence on Structural Parameters, Release Mechanisms, Cell Cytotoxicity and Antibacterial Activity, *Molecules*, 25.
74. Antoniac, I., Miculescu, F., Cotrut, C., Ficai, A., Rau, J. V., Grosu, E., Antoniac, A., Tecu, C., and Cristescu, I. (2020) Controlling the Degradation Rate of Biodegradable Mg-Zn-Mn Alloys for Orthopedic Applications by Electrophoretic Deposition of Hydroxyapatite Coating, *Mater.*, 13.
75. Sonmez, M., Ficai, D., Ardelean, I. L., Trusca, R., Alexandrescu, L., Constantinescu, D., Ghizdavet, Z., Oprea, O., Ficai, A., and Andronescu, E. (2019) Flax Fibres Fabric Surface Decoration with Nanoparticles-A Promising Tool for Developing Hybrid Reinforcing Agent of Thermoplastic Polymers, *Fibers Polym.*, 20, 2407-2415.
76. Sena, S., Sumeyra, K. N., Ulkugul, G., Sema, A., Betul, K., Muge, S. B., Sayip, E. M., Muhammet, U., Cevriye, K., Mahir, M., Titu, A. M., Ficai, A., Ficai, D., and Gunduz, O. (2019) Controlled Release of Metformin Hydrochloride from Core-Shell Nanofibers with Fish Sarcoplasmic Protein, *Medicina-Lithuania*, 55.
77. Pichugin, V. F., Pustovalova, A. A., Evdokimov, K. E., Konishchev, M. E., Kuzmin, O. S., Boytsova, E. L., Beshchasna, N., Ficai, A., Aubakirova, D. M., and Sun, Z. L. (2019) Structural features and nitrogen positions in titanium oxynitride films grown in plasma of magnetron discharge, *J Phys Conf Ser*, 1281.
78. Nicoara, A. I., Neacsu, I. A., Ene, V. L., Vasile, B. S., Ficai, A., and Andronescu, E. (2019) Hydroxyapatite/Carbon Based Biocomposite Scaffolds as Prospective Materials for Bone Tissue Engineering, *U Politeh Buch Ser B*, 81, 107-120.
79. Negut, I., Visan, A. I., Popescu, C., Cristescu, R., Ficai, A., Grumezescu, A. M., Chifiriuc, M. C., Boehm, R. D., Yamaleyeva, D., Taylor, M., Narayan, R. J., and Chrisey, D. B. (2019) Successful Release of Voriconazole and Flavonoids from MAPLE Deposited Bioactive Surfaces, *Appl Sci-Basel*, 9.
80. Neacsu, I. A., Melente, A. E., Holban, A. M., Ficai, A., Ditu, L. M., Kamerzan, C. M., Tihauan, B. M., Nicoara, A. I., Bezirtzoglou, E., Chifiriuc, M. C., and Pircalabioru, G. G. (2019) Novel hydrogels based on collagen and ZnO nanoparticles with antibacterial activity for improved wound dressings, *Rom Biotech Lett*, 24, 317-323.
81. Neacsu, I. A., Arsenie, L. V., Trusca, R., Ardelean, I. L., Mihailescu, N., Mihailescu, I. N., Ristoscu, C., Bleotu, C., Ficai, A., and Andronescu, E. (2019) 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.
82. Ionescu, O., Ciocilteu, M. V., Manda, C. V., Neacsu, I. A., Ficai, A., Amzoiu, E., Stiolica, A. T., Croitoru, O., and Neamtu, J. (2019) Bone - Graft Delivery Systems of Type PLGA-gentamicin and Collagen - hydroxyapatite - gentamicine, *Mater. Plast.*, 56, 534-537.
83. Grumezescu, A. M., Stoica, A. E., Dima-Balcescu, M. S., Chircov, C., Gharbia, S., Balta, C., Rosu, M., Herman, H., Holban, A. M., Ficai, A., Vasile, B. S., Andronescu, E., Chifiriuc, M. C., and Hermenean, A. (2019) Electrospun Polyethylene Terephthalate Nanofibers Loaded with Silver Nanoparticles: Novel Approach in Anti-Infective Therapy, *J. Clin. Med.*, 8.
84. Ghizdavet, Z., Baciuc, A. C., Ficai, A., and Tit, D. A. (2019) Correlations Composition-Processing-Properties for Tableware Ceramics. Part II: Influence of Grinding on Glaze Properties, *Rev Rom Mater*, 49, 497-506.
85. Ficai, D., and Ficai, A. (2019) New Challenges in Cancer Treatment, from Novel Agents to Innovative Administration, *Anti-Cancer Agents Med. Chem.*, 19, 4-5.
86. Ficai, A. (2019) Triggering Factors in Drug Delivery Devices, *Curr. Pharm. Des.*, 25, 107-108.
87. Duta, C., Maximov, M., Trusca, R., Ficai, A., Ficai, D., Ilie, C. I., Ditu, L. M., and Andronescu, E. (2019) Advanced Drug-Eluting Poly (Vinyl Chloride) Surfaces Deposited by Spin Coating, *Medicina-Lithuania*, 55.
88. Croitoru, A., Oprea, O., Nicoara, A., Trusca, R., Radu, M., Neacsu, I., Ficai, D., Ficai, A., and Andronescu, E. (2019) Multifunctional Platforms Based on Graphene Oxide and Natural Products, *Medicina-Lithuania*, 55.
89. Croitoru, A., Ficai, D., Craciun, L., Ficai, A., and Andronescu, E. (2019) Evaluation and Exploitation of Bioactive Compounds of Walnut, *Juglans regia*, *Curr. Pharm. Des.*, 25, 119-131.
90. Beshchasna, N., Ho, A. Y. K., Saqib, M., Kraskiewicz, H., Wasyluk, L., Kuzmin, O., Duta, O. C., Ficai, D., Trusca, R. D., Ficai, A., Pichugin, V. F., Opitz, J., and Andronescu, E. (2019) Surface evaluation of titanium oxynitride coatings used for developing layered cardiovascular stents, *Mat Sci Eng C-Mater*, 99, 405-416.

91. Bandici, L., Banu, G. S., Ficai, A., and Ficai, D. (2019) Obtaining SiO₂ Nanopowders Using Microwave Field Processing, 2019 15th International Conference on Engineering of Modern Electric Systems (Emes), 141-144.
92. Bandici, L., Banu, G. S., Ficai, A., and Ficai, D. (2019) The Role of Susceptors in the Process of Obtaining Nanopowders Using Microwaves, 2019 15th International Conference on Engineering of Modern Electric Systems (Emes), 69-72.
93. Ardelean, I. L., Ficai, D., Sonmez, M., Oprea, O., Nechifor, G., Andronescu, E., Ficai, A., and Titu, M. A. (2019) Hybrid Magnetic Nanostructures for Cancer Diagnosis and Therapy, *Anti-Cancer Agents Med. Chem.*, 19, 6-16.
94. Teodor, E. D., Gatea, F., Ficai, A., and Radu, G. L. (2018) Functionalized Magnetic Nanostructures for Anticancer Therapy, *Current Drug Targets*, 19, 239-247.
95. Sonmez, M., Ficai, D., Ficai, A., Oprea, O., Ardelean, I. L., Trusca, R., Ghizdavet, Z., Alexandrescu, L., Nituica, M., Stelescu, M. D., Georgescu, M., Gurau, D., and Constantinescu, D. (2018) 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*, 349-354.
96. Sonmez, M., Ficai, D., Ficai, A., Oprea, O., Ardelean, I. L., Trusca, R., Alexandrescu, L., Nituica, M., Stelescu, M. D., Georgescu, M., and Gurau, D. (2018) 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*, 153-158.
97. Sonmez, M., Ficai, D., Ficai, A., Alexandrescu, L., Georgescu, M., Trusca, R., Gurau, D., Titu, M. A., and Andronescu, E. (2018) Applications of mesoporous silica in biosensing and controlled release of insulin, *Int J Pharmaceut*, 549, 179-200.
98. Radulescu, M., Popescu, S., Ficai, D., Sonmez, M., Oprea, O., Spoiala, A., Ficai, A., and Andronescu, E. (2018) Advances in Drug Delivery Systems, from 0 to 3D Superstructures, *Current Drug Targets*, 19, 393-405.
99. Negut, I., Grumezescu, V., Ficai, A., Grumezescu, A. M., Holban, A. M., Popescu, R. C., Savu, D., Vasile, B. S., and Socol, G. (2018) MAPLE deposition of *Nigella sativa* functionalized Fe₃O₄ nanoparticles for antimicrobial coatings, *Appl Surf Sci*, 455, 513-521.
100. Mutlu, E. C., Ficai, A., Ficai, D., Yildirim, A. B., Yildirim, M., Oktar, F. N., and Demir, A. (2018) Chitosan/poly(ethylene glycol)/hyaluronic acid biocompatible patches obtained by electrospraying, *Biomed Mater*, 13.
101. Moukbil, Y., Oktar, F. N., Ozbek, B., Ficai, D., Ficai, A., Andronescu, E., Eroglu, M. S., and Gunduz, O. (2018) Biohydrogels for medical applications: A short review, *Org. Commun.*, 11, 123-141.
102. Masae, M., Pitsuwan, P., Kooptarnond, K., Choopool, P., Kachintarot, S., Siriwan, J., and Ficai, A. (2018) Synthesis of TiO₂ doped selenium nanoparticles using herbal turmeric powders coating on cotton fabric for antibacterial, *J Phys Conf Ser*, 1144.
103. Marin, M. M., Kaya, M. G. A., Ficai, A., Ghica, M. V., Popa, L., and Tutuiianu, R. (2018) Collagen Hydrolysate-Based Ingestible Bioproducts for the Treatment of Gastric Disorders, *Rev Rom Mater*, 48, 121-126.
104. Grumezescu, V., Negut, I., Grumezescu, A. M., Ficai, A., Dorcioman, G., Socol, G., Iordache, F., Trusca, R., Vasile, B. S., and Holban, A. M. (2018) MAPLE fabricated coatings based on magnetite nanoparticles embedded into biopolymeric spheres resistant to microbial colonization, *Appl Surf Sci*, 448, 230-236.
105. Ficai, D., Grumezescu, V., Fufa, O. M., Popescu, R. C., Holban, A. M., Ficai, A., Grumezescu, A. M., Mogoanta, L., Mogosanu, G. D., and Andronescu, E. (2018) Antibiofilm Coatings Based on PLGA and Nanostructured Cefepime-Functionalized Magnetite, *Nanomaterials-Basel*, 8.
106. Ficai, D., Ardelean, I. L., Holban, A. M., Ditu, L. M., Gudovan, D., Sonmez, M., Trusca, R., Kaya, A., Ficai, A., and Andronescu, E. (2018) Manufacturing nanostructured chitosan-based 2D sheets with prolonged antimicrobial activity, *Rom. J. Mor. Embry.*, 59, 517-525.
107. Ficai, A. (2018) Smart Drug Delivery Systems (Part 1), *Current Drug Targets*, 19, 201-201.
108. Ficai, A. (2018) Smart Drug Delivery Systems (Part 2), *Current Drug Targets*, 19, 299-299.
109. Burdusel, A. C., Gherasim, O., Grumezescu, A. M., Mogoanta, L., Ficai, A., and Andronescu, E. (2018) Biomedical Applications of Silver Nanoparticles: An Up-to-Date Overview, *Nanomaterials-Basel*, 8.
110. Aydogdu, M. O., Oprea, A. E., Trusca, R., Surdu, A. V., Ficai, A., Holban, A. M., Iordache, F., Paduraru, A. V., Filip, D. G., Altun, E., Ekren, N., Oktar, F. N., and Gunduz, O. (2018) Production and Characterization of Antimicrobial Electrospun Nanofibers Containing Polyurethane, Zirconium Oxide and Zeolite, *BioNanoScience*, 8, 154-165.
111. Ardelean, I. L., Gudovan, D., Ficai, D., Ficai, A., Andronescu, E., Albu-Kaya, M. G., Neacsu, P., Ion, R. N., Cimpean, A., and Mitran, V. (2018) Collagen/hydroxyapatite bone grafts manufactured by homogeneous/heterogeneous 3D printing, *Mater Lett*, 231, 179-182.

112. Ardelean, I. L., Fikai, D., Fikai, A., Nechifor, G., Dragu, D., and Bleotu, C. (2018) Synthesis and Characterization of New Magnetite Nanoparticles by Using the Different Amino Acids Such as Stabilizing Agents, *U Politeh Buch Ser B*, 80, 33-46.
113. Alexandrescu, L., Sonmez, M., Georgescu, M., Fikai, A., Trusca, R., Gurau, D., and Tudoroiu, L. (2018) Polyamide/Polypropylene/Graphite Nanocomposites with Functional Compatibilizers, *Proceedings of the 7th International Conference on Advanced Materials and Systems*, 27-32.
114. Yetmez, M., Erkmen, Z. E., Kalkandelen, C., Fikai, A., and Oktar, F. N. (2017) Sintering effects of mullite-doping on mechanical properties of bovine hydroxyapatite, *Mat Sci Eng C-Mater*, 77, 470-475.
115. Telcian, A., Hussien, M. D., Chifiriuc, M. C., Bleotu, C., Holban, A. M., Curutiu, C., Grosu, E., Fikai, A., Mihaescu, G., Grigore, R., and Ditu, L. M. (2017) Assessment of the anti-biofilm activity and biocompatibility of novel PE and PVC polymers, *Rom Biotech Lett*, 22, 12997-13004.
116. Sava, O. R., Sava, D. F., Radulescu, M., Albu, M. G., Fikai, D., Veloz-Castillo, M. F., Mendez-Rojas, M. A., and Fikai, A. (2017) Trends in Materials Science for Ligament Reconstruction, *Curr Stem Cell Res T*, 12, 145-154.
117. Pelin, G., Pelin, C. E., Stefan, A., Dinca, I., Andronescu, E., Fikai, A., and Trusca, R. (2017) Mechanical and Tribological Properties of Nanofilled Phenolic-Matrix Laminated Composites, *Mater. Tehnologije*, 51, 569-75.
118. Lungu, I. I., Holban, A. M., Fikai, A., and Grumezescu, A. M. (2017) Zinc Oxide Nanostructures: New Trends in Antimicrobial Therapy, *Nano Str Med*, 503-514.
119. Komur, B., Ozturk, E. R., Ekren, N., Inan, A. T., Gunduz, O., Andronescu, E., Fikai, A., and Oktar, F. N. (2017) Characterization of Cu/Ag/Eu/Hydroxyapatite Composites Produced by Wet Chemical Precipitation, *Acta Phys Pol A*, 131, 392-396.
120. Inan, A. T., Komur, B., Ekren, N., Aydogdu, M. O., Gokce, H., Fikai, A., Salman, S., Oktar, F. N., and Gunduz, O. (2017) Physical Characterization of Turbot (*Psetta Maxima*) Originated Natural Hydroxyapatite, *Acta Phys Pol A*, 131, 397-399.
121. Grumezescu, A. M., Fikai, A., Fikai, D., Holban, A. M., Vasile, B. S., and Andronescu, E. (2017) Biomaterials based on functional graphene oxide and natural compounds with improved biocompatibility, biodistribution and low immunomodulatory effects, *Febs J*, 284, 328-328.
122. Fikai, D., Sandulescu, M., Fikai, A., Andronescu, E., Yetmez, M., Agrali, O. B., Elemek, E., Gunduz, O., Sahin, Y. M., and Oktar, F. N. (2017) Drug Delivery Systems for Dental Applications, *Curr. Org. Chem.*, 21, 64-73.
123. Fikai, D., Fikai, A., Melinescu, A., and Andronescu, E. (2017) Nanotechnology: A Challenge in Hard Tissue Engineering with Emphasis on Bone Cancer Therapy, *Nanostructures for Cancer Ther.*, 513-539.
124. Fikai, D., Fikai, A., and Andronescu, E. (2017) Recent Advances in Using Magnetic Materials for Environmental Applications, *Nanotech Agrifood*, 9, 1-32.
125. Fikai, D., and Fikai, A. (2017) Prevention of biofilm formation by material modification, *Woodh Publ Ser Biom*, 159-180.
126. Ardelean, I. L., Stoencea, L. B. N., Fikai, D., Fikai, A., Trusca, R., Vasile, B. S., Nechifor, G., and Andronescu, E. (2017) Development of Stabilized Magnetite Nanoparticles for Medical Applications, *J Nanomater*, 2017.
127. Alexandrescu, L., Sonmez, M., Georgescu, M., Nituica, M., Fikai, A., Trusca, R., Gurau, D., and Tudoroiu, L. (2017) Polyamide/Polypropylene/graphene oxide nanocomposites with functional compatibilizers: Morpho-structural and physico-mechanical characterization, *Procedia Struct Inte*, 5, 675-682.
128. Alexandrescu, L., Sonmez, M., Georgescu, M., Nituica, M., Fikai, A., Trusca, R., and Gurau, D. (2017) Polymer nanocomposites PE/PE-g-MA/EPDM/nanoZnO and TiO₂ dynamically crosslinked with sulphur and accelerators, *Procedia Struct Inte*, 5, 667-674.
129. Yipel, M., Ghica, M. V., Kaya, M. G. A., Spoiala, A., Radulescu, M., Fikai, D., Fikai, A., Bleotu, C., and Cornelia, N. (2016) Multifunctional Materials for Cancer Therapy: From Antitumoral Agents to Innovative Administration, *Curr. Org. Chem.*, 20, 2934-2948.
130. Sonmez, M., Verisan, C., Voicu, G., Fikai, D., Fikai, A., Oprea, A. E., Vlad, M., and Andronescu, E. (2016) Extended release of vitamins from magnetite loaded polyanionic polymeric beads, *Int J Pharmaceut*, 510, 457-464.
131. Popescu, S., Ardelean, I. L., Gudovan, D., Radulescu, M., Fikai, D., Fikai, A., Vasile, B. S., and Andronescu, E. (2016) Multifunctional materials such as MCM-41/Fe₃O₄/folic acid as drug delivery system, *Rom. J. Mor. Embry.*, 57, 483-489.
132. Pica, A., Guran, C., Fikai, D., Fikai, A., and Dumitru, F. (2016) Acrylic polymer influence on the structure and morphology of AgNPs obtained by chemical method for antimicrobial applications, *Journal of Coatings Technology and Research*, 13, 53-61.

133. Pica, A., Fikai, D., Fikai, A., Guran, C., Dumitru, F., and Pica, M. (2016) Studies on morphological and structural stability of some antimicrobial film-forming materials, in time, *J. Optoelectron. Adv. Mat.*, 18, 179-84.
134. Pica, A., and Fikai, A. (2016) A New Generation of Antibacterial Film Forming Materials, *Rev Chim*, 67, 34-37.
135. Pelin, G., Pelin, C. E., Stefan, A., Dinca, I., Fikai, A., Andronescu, E., and Trusca, R. (2016) Influence of nanometric silicon carbide on phenolic resin composites properties, *Bull Mater Sci*, 39, 769-775.
136. Pelin, G., Andronescu, E., Pelin, C. E., Oprea, O., and Fikai, A. (2016) Ablative Type Composites Based on Phenolic Resin/Nano-Silicon Carbide Matrix Reinforced by Carbon Fiber Felt, *Rev Rom Mater*, 46, 444-52.
137. Pelin, C. E., Pelin, G., Stefan, A., Andronescu, E., Dinca, I., Fikai, A., and Trusca, R. (2016) Mechanical Properties of Polyamide/Carbon-Fiber-Fabric Composites, *Mater. Tehnologije*, 50, 723-728.
138. Paunica-Panea, G., Fikai, A., Marin, M. M., Marin, S., Albu, M. G., Constantin, V. D., Dinu-Pirvu, C., Vuluga, Z., Corobea, M. C., and Ghica, M. V. (2016) New Collagen-Dextran-Zinc Oxide Composites for Wound Dressing, *J Nanomater*, 2016.
139. Mihaiescu, D. E., Gudovan, D., Traistaru, V., Ionescu, P., Fudulu, A., Voicu, G., Fikai, A., Trusca, R., Istrati, D., Marton, A., Buteica, S. A., Vasile, B., and Andronescu, E. (2016) Synthesis of Silver Secondary Shell Magnetic Nanoparticles, *Rev. Roumaine Chim.*, 61, 105-+.
140. Komur, B., Lohse, T., Can, H. M., Khalilova, G., Gecimli, Z. N., Aydogdu, M. O., Kalkandelen, C., Stan, G. E., Sahin, Y. M., Sengil, A. Z., Suleymanoglu, M., Kuruca, S. E., Oktar, F. N., Salman, S., Ekren, N., Fikai, A., and Gunduz, O. (2016) Fabrication of naturel pumice/hydroxyapatite composite for biomedical engineering, *Biomed. Eng. Online*, 15.
141. Ilie, A., Ghitulica, C., Andronescu, E., Cucuruz, A., and Fikai, A. (2016) New composite materials based on alginate and hydroxyapatite as potential carriers for ascorbic acid, *Int J Pharmaceut*, 510, 501-507.
142. Fikai, A., Fikai, D., Andronescu, E., Yetmez, M., Ozkalayci, N., Agrali, O. B., Sahin, Y. M., Gunduz, O., and Oktar, F. N. (2016) Nanotechnology in dentistry, *Nanobiomaterials in Dentistry: Applications of Nanobiomaterials*, Vol 11, 187-210.
143. Cucuruz, A. T., Andronescu, E., Fikai, A., Ilie, A., and Iordache, F. (2016) Synthesis and characterization of new composite materials based on poly(methacrylic acid) and hydroxyapatite with applications in dentistry, *Int J Pharmaceut*, 510, 516-523.
144. Colie, M., Mihaiescu, D., Surdu, A., Trusca, R., Vasile, B., Istrati, D., Fikai, A., Plapcianu, C., and Andronescu, E. (2016) High temperature superconducting materials based on Graphene / YBCO nanocomposite, *Mater Today-Proc*, 3, 2628-2634.
145. Colie, M., Mihaiescu, D., Surdu, A., Fikai, A., Istrati, D., and Andronescu, E. (2016) Synthesis of YBa₂Cu₃O₇-delta by a modified autocombustion method, *Rev Rom Mater*, 46, 369-374.
146. Ban, C. E., Stefan, A., Dinca, I., Pelin, G., Fikai, A., Andronescu, E., Oprea, O., and Voicu, G. (2016) Multi-Walled Carbon Nanotubes Effect in Polypropylene Nanocomposites, *Mater. Tehnologije*, 50, 11-16.
147. Unsoy, G., Gunduz, U., Oprea, O., Fikai, D., Sonmez, M., Radulescu, M., Alexie, M., and Fikai, A. (2015) Magnetite: From Synthesis to Applications, *Curr. Top. Med. Chem.*, 15, 1622-1640.
148. Sonmez, M., Gudovan, D., Trusca, R., Fikai, A., Fikai, D., Andronescu, E., and Vasile, B. S. (2015) Synthesis, characterization and testing of MCM-41/TiO₂ catalyst for organic dye degradation, *Dig. J. Nanomat. Biostr.*, 10, 1329-1341.
149. Sonmez, M., Georgescu, M., Valsan, M., Radulescu, M., Fikai, D., Voicu, G., Fikai, A., and Alexandrescu, L. (2015) Design and characterization of polypropylene matrix/glass fibers composite materials, *J. Appl. Polym. Sci.*, 132.
150. Sonmez, M., Georgescu, M., Alexandrescu, L., Gurau, D., Fikai, A., Fikai, D., and Andronescu, E. (2015) Synthesis and Applications of Fe₃O₄/SiO₂ Core-Shell Materials, *Curr. Pharm. Des.*, 21, 5324-5335.
151. Rusu, L. C., Nedelcu, I. A., Albu, M. G., Sonmez, M., Voicu, G., Radulescu, M., Fikai, D., Fikai, A., Negrutiu, M. L., and Sinescu, C. (2015) Tetracycline Loaded Collagen/Hydroxyapatite Composite Materials for Biomedical Applications, *J Nanomater*, 2015.
152. Radulescu, M., Fikai, D., Oprea, O., Fikai, A., Andronescu, E., and Holban, A. M. (2015) Antimicrobial Chitosan based Formulations with Impact on Different Biomedical Applications, *Curr Pharm Biotechno*, 16, 128-136.
153. Pica, A., Pica, M., Fikai, D., Fikai, A., and Florica, D. (2015) Incorporation of Silver Nanoparticles in Film Forming Materials for Long Term Antimicrobial Action, *Curr. Nanosci.*, 11, 760-769.
154. Pelin, C. E., Stefan, A., Dinca, I., Fikai, A., Pelin, G., Andronescu, E., Constantinescu, D., and Voicu, G. (2015) Polyamide 6/carbon fiber laminated composites, *J. Optoelectron. Adv. Mat.*, 17, 750-756.
155. Patrascu, J. M., Nedelcu, I. A., Sonmez, M., Fikai, D., Fikai, A., Vasile, B. S., Ungureanu, C., Albu, M. G., Andor, B., Andronescu, E., and Rusu, L. C. (2015) Composite Scaffolds Based on Silver Nanoparticles for Biomedical Applications, *J Nanomater*, 2015.

156. Oktar, F. N., Yetmez, M., Ficai, D., Ficai, A., Dumitru, F., and Pica, A. (2015) Molecular Mechanism and Targets of the Antimicrobial Activity of Metal Nanoparticles, *Curr. Top. Med. Chem.*, 15, 1583-1588.
157. Nitipir, C., Albu, M. G., Voicu, G., Ficai, A., Barbu, M. A., Popa, L. G., Mirea, D., Lazar, S., Levai, C., and Ghica, M. V. (2015) Collagen - vinblastine Delivery Systems as a New Treatment for Kaposi's Sarcoma, *Rev Chim*, 66, 1169-1172.
158. Iordache, F., Grumezescu, V., Grumezescu, A. M., Curutu, C., Ditu, L. M., Socol, G., Ficai, A., Trusca, R., and Holban, A. M. (2015) Gamma-cyclodextrin/usnic acid thin film fabricated by MAPLE for improving the resistance of medical surfaces to *Staphylococcus aureus* colonization, *Appl Surf Sci*, 336, 407-412.
159. Gunduz, O., Yetmez, M., Sonmez, M., Georgescu, M., Alexandrescu, L., Ficai, A., Ficai, D., and Andronescu, E. (2015) Mesoporous Materials Used in Medicine and Environmental Applications, *Curr. Top. Med. Chem.*, 15, 1501-1515.
160. Grumezescu, V., Andronescu, E., Holban, A. M., Socol, G., Grumezescu, A. M., Ficai, A., Lazar, V., Chifiriuc, M. C., Trusca, R., and Iordache, F. (2015) Fabrication and characterization of functionalized surfaces with 3-amino propyltrimethoxysilane films for anti-infective therapy applications, *Appl Surf Sci*, 336, 401-406.
161. Grumezescu, A. M., Cristescu, R., Chifiriuc, M. C., Dorcioman, G., Socol, G., Mihaiescu, I. N., Mihaiescu, D. E., Ficai, A., Vasile, O. R., Enculescu, M., and Chrisey, D. B. (2015) Fabrication of magnetite-based core-shell coated nanoparticles with antibacterial properties, *Biofabrication*, 7.
162. Grosu, E., Ficai, A., Rapa, M., Zaharia, C., Chifiriuc, C., Ulinici, S., and Jecu, L. (2015) Plastified polyvinyl chloride for antimicrobial medical device applications, *J. Optoelectron. Adv. Mat.*, 17, 1139-1145.
163. Ghica, M. V., Ficai, A., Marin, S., Marin, M., Ene, A. M., and Patrascu, J. M. (2015) Collagen/Bioactive Glass Ceramic/Doxycycline Composites for Bone Defects, *Rev Rom Mater*, 45, 307-314.
164. Ficai, D., Sonmez, M., Albu, M. G., Mihaiescu, D. E., Ficai, A., and Bleotu, C. (2015) Antitumoral materials with regenerative function obtained using a layer-by-layer technique, *Drug Des Dev Ther*, 9, 1269-1279.
165. Ficai, D., Ficai, A., Dinu, E., Oprea, O., Sonmez, M., Keler, M. K., Sahin, Y. M., Ekren, N., Inan, A. T., Daglilar, S., and Gunduz, O. (2015) Magnetic Core Shell Structures: From 0D to 1D Assembling, *Curr. Pharm. Des.*, 21, 5301-5311.
166. Ficai, D., Ficai, A., and Andronescu, E. (2015) Advances in Cancer Treatment: Role of Nanoparticles, *Nanomaterials - Toxicity and Risk Assessment*, 1-21.
167. Ficai, A. (2015) Engineered Magnetic Core@Shell Structures, *Curr. Pharm. Des.*, 21, 5299-5300.
168. Denis, C. V., Carap, A., Socea, B., Ficai, A., Albu, M. G., and Paunica-Panea, G. (2015) 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, 290-7.
169. Colie, M., Mihaiescu, D. E., Surdu, A., Ficai, A., Trusca, R., Istrati, D., and Andronescu, E. (2015) Obtaining YBa₂Cu₃O₇-delta through a modified auto-combustion reaction with and without addition of organic fuel, *Rev. Roumaine Chim.*, 60, 1117-1123.
170. Bolocan, A., Mihaiescu, D. E., Andronescu, E., Voicu, G., Grumezescu, A. M., Ficai, A., Vasile, B. S., Bleotu, C., Chifiriuc, M. C., and Pop, C. S. (2015) Biocompatible hydrodispersible magnetite nanoparticles used as antibiotic drug carriers, *Rom. J. Mor. Embry.*, 56, 365-370.
171. Vlad, M., Andronescu, E., Grumezescu, A. M., Ficai, A., Voicu, G., Bleotu, C., and Chifiriuc, M. C. (2014) Carboxymethyl-cellulose/Fe₃O₄ nanostructures for antimicrobial substances delivery, *Bio-Med. Mater. Eng.*, 24, 1639-1646.
172. Vasile, B. S., Oprea, O., Voicu, G., Ficai, A., Andronescu, E., Teodorescu, A., and Holban, A. (2014) Synthesis and characterization of a novel controlled release zinc oxide/gentamicin-chitosan composite with potential applications in wounds care, *Int J Pharmaceut*, 463, 161-169.
173. Vaja, F., Oprea, O., Ficai, D., Ficai, A., and Guran, C. (2014) Synthesis of CeO₂ nanoparticles on the mesoporous silica support via nanocasting, *Dig. J. Nanomat. Biostr.*, 9, 187-195.
174. Spoiala, A., Albu, M. G., Ficai, A., Andronescu, E., Voicu, G., and Ungureanu, C. (2014) THE SiO₂/ZnO COMPOSITE MATERIALS FOR COSMETIC CREAMS, *Dig. J. Nanomat. Biostr.*, 9, 1729-1737.
175. Sonmez, M., Ficai, D., Ficai, A., Alexandrescu, L., Voicu, G., and Andronescu, E. (2014) Functionalization of Glass Fibers for Obtaining Polypropylene Based Composite Materials, *Rev Rom Mater*, 44, 88-94.
176. Sahin, Y. M., Yetmez, M., Oktar, F. N., Gunduz, O., Agathopoulos, S., Andronescu, E., Ficai, D., Sonmez, M., and Ficai, A. (2014) Nanostructured Biomaterials with Antimicrobial Properties, *Curr. Med. Chem.*, 21, 3391-3404.
177. Oprea, O., Andronescu, E., Ficai, D., Ficai, A., Oktar, F. N., and Yetmez, M. (2014) ZnO Applications and Challenges, *Curr. Org. Chem.*, 18, 192-203.
178. Nedelcu, I. A., Ficai, A., Sonmez, M., Ficai, D., Oprea, O., and Andronescu, E. (2014) Silver Based Materials for Biomedical Applications, *Curr. Org. Chem.*, 18, 173-184.

179. Mihaiescu, D. E., Gudovan, D., Andronescu, E., and Ficai, A. (2014) Controlled Release Study of Aztreonam from MCM-41 Mesoporous Material, *Dig. J. Nanomat. Biostr.*, 9, 379-383.
180. Marques, C., Ferreira, J. M. F., Andronescu, E., Ficai, D., Sonmez, M., and Ficai, A. (2014) Multifunctional materials for bone cancer treatment, *Int. J. Nanomed.*, 9, 2713-2725.
181. Iliescu, R. I., Andronescu, E., Ghitulica, C. D., Voicu, G., Ficai, A., and Hoteteu, M. (2014) Montmorillonite-alginate nanocomposite as a drug delivery system incorporation and in vitro release of irinotecan, *Int J Pharmaceut*, 463, 184-192.
182. Grumezescu, V., Socol, G., Grumezescu, A. M., Holban, A. M., Ficai, A., Trusca, R., Bleotu, C., Balaure, P. C., Cristescu, R., and Chifiriuc, M. C. (2014) Functionalized antibiofilm thin coatings based on PLA-PVA microspheres loaded with usnic acid natural compounds fabricated by MAPLE, *Appl Surf Sci*, 302, 262-267.
183. Grumezescu, V., Holban, A. M., Iordache, F., Socol, G., Mogosanu, G. D., Grumezescu, A. M., Ficai, A., Vasile, B. S., Trusca, R., Chifiriuc, M. C., and Maniu, H. (2014) MAPLE fabricated magnetite@eugenol and (3-hydroxybutyric acid-co-3-hydroxyvaleric acid)-polyvinyl alcohol microspheres coated surfaces with antimicrobial properties, *Appl Surf Sci*, 306, 16-22.
184. Grumezescu, V., Holban, A. M., Grumezescu, A. M., Socol, G., Ficai, A., Vasile, B. S., Trusca, R., Bleotu, C., Lazar, V., Chifiriuc, C. M., and Mogosanu, G. D. (2014) Usnic acid-loaded biocompatible magnetic PLGA-PVA microsphere thin films fabricated by MAPLE with increased resistance to staphylococcal colonization, *Biofabrication*, 6.
185. Grumezescu, A. M., Ghitulica, C. D., Voicu, G., Huang, K. S., Yang, C. H., Ficai, A., Vasile, B. S., Grumezescu, V., Bleotu, C., and Chifiriuc, M. C. (2014) New silica nanostructure for the improved delivery of topical antibiotics used in the treatment of staphylococcal cutaneous infections, *Int J Pharmaceut*, 463, 170-6.
186. Grumezescu, A. M., Andronescu, E., Grumezescu, V., Ficai, A., Socol, G., Iordache, F., and Holban, A. M. (2014) Novel nano-coating surfaces based on hydrophobic polymers and phytostructures prepared by MAPLE with increased resistance to microbial colonization, *Febs J*, 281, 665-665.
187. Florea, M. G., Nedelcu, I. A., Ungureanu, C., Ficai, A., Ficai, D., Guran, C., and Andronescu, E. (2014) Alginate and Sulfanilamide Based DDS with Antibacterial Activity, *Int. J. Polym. Mater. Polym. Biomater.*, 63, 92-96.
188. Ficai, D., Oprea, O., Ficai, A., and Holban, A. M. (2014) Metal Oxide Nanoparticles: Potential Uses in Biomedical Applications, *Curr. Proteomics*, 11, 139-149.
189. Voicu, G., Grumezescu, V., Andronescu, E., Grumezescu, A. M., Ficai, A., Ficai, D., Ghitulica, C. D., Gheorghe, I., and Chifiriuc, M. C. (2013) Caprolactam-silica network, a strong potentiator of the antimicrobial activity of kanamycin against Gram-positive and Gram-negative bacterial strains, *Int J Pharmaceut*, 446, 63-69.
190. Voicu, G., Geanaliu, R. E., Ghitulica, C. D., Ficai, A., Grumezescu, A. M., and Bleotu, C. (2013) Synthesis, characterization and bioevaluation of irinotecan-collagen hybrid materials for biomedical applications as drug delivery systems in tumoral treatments, *Cent. Eur. J. Chem.*, 11, 2134-2143.
191. Voicu, G., Andronescu, E., Grumezescu, A. M., Huang, K. S., Ficai, A., Yang, C. H., Bleotu, C., and Chifiriuc, M. C. (2013) Antitumor Activity of Magnetite Nanoparticles: Influence of Hydrocarbonated Chain of Saturated Aliphatic Monocarboxylic Acids, *Curr. Org. Chem.*, 17, 831-840.
192. Vaja, F., Ficai, D., Ficai, A., Oprea, O., and Guran, C. (2013) Multifunctional advanced coatings based on ZnO/M obtained by nanocasting method, *J. Optoelectron. Adv. Mat.*, 15, 107-113.
193. Spoiala, A., Nedelcu, I. A., Ficai, D., Ficai, A., and Andronescu, E. (2013) Zinc Based Antibacterial Formulations for Cosmetic Applications, *Dig. J. Nanomat. Biostr.*, 8, 1235-1242.
194. Mihaiescu, D. E., Grumezescu, A. M., Andronescu, E., Voicu, G., Ficai, A., Vasile, O. R., Bleotu, C., and Saviuc, C. (2013) Prosthetic Devices with Functionalized Anti-biofilm Surface Based NanoAg@C18, *Curr. Org. Chem.*, 17, 105-112.
195. Holban, A. M., Grumezescu, A. M., Ficai, A., Chifiriuc, C. M., Lazar, V., and Radulescu, R. (2013) Fe₃O₄@C-18-carvone to prevent candida tropicalis biofilm development, *Rev Rom Mater*, 43, 300-305.
196. Guran, C., Pica, A., Ficai, D., Ficai, A., and Comanescu, C. (2013) Antimicrobial coatings - obtaining and characterization, *Bull Mater Sci*, 36, 183-188.
197. Grumezescu, A. M., Cotar, A. I., Andronescu, E., Ficai, A., Ghitulica, C. D., Grumezescu, V., Vasile, B. S., and Chifiriuc, M. C. (2013) In vitro activity of the new water-dispersible Fe₃O₄@usnic acid nanostructure against planktonic and sessile bacterial cells, *J. Nanopart. Res.*, 15.
198. Grumezescu, A. M., Andronescu, E., Holban, A. M., Ficai, A., Ficai, D., Voicu, G., Grumezescu, V., Balaure, P. C., and Chifiriuc, C. M. (2013) Water dispersible cross-linked magnetic chitosan beads for increasing the antimicrobial efficiency of aminoglycoside antibiotics, *Int J Pharmaceut*, 454, 233-240.
199. Grumezescu, A. M., Andronescu, E., Ficai, A., Voicu, G., Cocos, O., and Chifiriuc, M. C. (2013) EUGENIA CARYOPHYLLATA ESSENTIAL OIL-SiO₂ BIOHYBRID STRUCTURE FOR THE POTENTIATION OF ANTIBIOTICS' ACTIVITY, *Rev Rom Mater*, 43, 160-166.

200. Grumezescu, A. M., Andronescu, E., Ficai, A., Grumezescu, V., Bleotu, C., Saviuc, C., Mihaiescu, D. E., and Chifiriuc, C. M. (2013) Biocompatible Magnetic Hollow Silica Microspheres for Drug Delivery, *Curr. Org. Chem.*, 17, 1029-1033.
201. Grumezescu, A. M., Andronescu, E., Albu, M. G., Ficai, A., Bleotu, C., Dragu, D., and Lazar, V. (2013) Wound Dressing Based Collagen Biomaterials Containing Usnic Acid as Quorum Sensing Inhibitor Agent: Synthesis, Characterization and Bioevaluation, *Curr. Org. Chem.*, 17, 125-131.
202. Grosu, E., Ficai, A., Rapa, M., Vlad, G., and Jecu, L. (2013) Selecting medical grade polymers and testing for achieving antibacterial devices tubular prosthetic, *J. Optoelectron. Adv. Mat.*, 15, 905-910.
203. Ficai, D., Ficai, A., Trusca, R., Vasile, B. S., Voicu, G., Guran, C., and Andronescu, E. (2013) Synthesis and Characterization of Magnetite-Polysulfone Micro- and Nanobeads with Improved Chemical Stability in Acidic Media, *Curr. Nanosci.*, 9, 271-277.
204. Ficai, A., Albu, M. G., Birsan, M., Sonmez, M., Ficai, D., Trandafir, V., and Andronescu, E. (2013) Collagen hydrolysate based collagen/hydroxyapatite composite materials, *J. Mol. Struct.*, 1037, 154-159.
205. Chifiriuc, M. C., Grumezescu, A. M., Andronescu, E., Ficai, A., Cotar, A. I., Grumezescu, V., Bezirtzoglou, E., Lazar, V., and Radulescu, R. (2013) Water dispersible magnetite nanoparticles influence the efficacy of antibiotics against planktonic and biofilm embedded *Enterococcus faecalis* cells, *Anaerobe*, 22, 14-19.
206. Balaure, P. C., Andronescu, E., Grumezescu, A. M., Ficai, A., Huang, K. S., Yang, C. H., Chifiriuc, C. M., and Lin, Y. S. (2013) Fabrication, characterization and in vitro profile based interaction with eukaryotic and prokaryotic cells of alginate-chitosan-silica biocomposite, *Int J Pharmaceut*, 441, 555-561.
207. Anghel, I., Grumezescu, A. M., Holban, A. M., Ficai, A., Anghel, A. G., and Chifiriuc, M. C. (2013) Biohybrid Nanostructured Iron Oxide Nanoparticles and *Satureja hortensis* to Prevent Fungal Biofilm Development, *Int J Mol Sci*, 14, 18110-18123.
208. Andronescu, E., Ficai, A., Georgiana, M., Mitran, V., Sonmez, M., Ficai, D., Ion, R., and Cimpean, A. (2013) Collagen-hydroxyapatite/Cisplatin Drug Delivery Systems for Locoregional Treatment of Bone Cancer, *Technol Cancer Res T*, 12, 275-284.
209. Sonmez, M., Ficai, D., Stan, A., Bleotu, C., Matei, L., Ficai, A., and Andronescu, E. (2012) Synthesis and characterization of hybrid PVA/Al₂O₃ thin film, *Mater Lett*, 74, 132-136.
210. Scurtu, M., Andronescu, E., Guran, C., Sonmez, M., Grumezescu, A., Pall, L., Ficai, A., and Ficai, D. (2012) Colloidal Silica Use As Dyes Removing System, *Rev Chim*, 63, 1013-1015.
211. Pica, A., Guran, C., Andronescu, E., Oprea, O., Ficai, D., and Ficai, A. (2012) Antimicrobial performances of some film forming materials based on silver nanoparticles, *J. Optoelectron. Adv. Mat.*, 14, 863-868.
212. Grumezescu, A. M., Ficai, A., Ficai, D., Predan, G., and Chifiriuc, M. C. (2012) Polymeric Magnetic Silica Microspheres as a Drug Loader for Antimicrobial Delivery Substances, *Dig. J. Nanomat. Biostr.*, 7, 1891-96.
213. Grumezescu, A. M., Andronescu, E., Ficai, A., Bleotu, C., Mihaiescu, D. E., and Chifiriuc, M. C. (2012) Synthesis, characterization and in vitro assessment of the magnetic chitosan-carboxymethylcellulose biocomposite interactions with the prokaryotic and eukaryotic cells, *Int J Pharmaceut*, 436, 771-777.
214. Florea, M. G., Ficai, A., Oprea, O., Guran, C., Ficai, D., Pall, L., and Andronescu, E. (2012) Drug Delivery Systems Based on Silica with Prolonged Delivery of Folic Acid, *Rev Rom Mater*, 42, 313-316.
215. Ficai, D., Andronescu, E., Ficai, A., Voicu, G., Vasile, B., Ionita, V., and Guran, C. (2012) Synthesis and Characterization of Mesoporous Magnetite Based Nanoparticles, *Curr. Nanosci.*, 8, 875-879.
216. Ficai, A., Andronescu, E., Ficai, D., Sonmez, M., Albu, M. G., and Voicu, G. (2012) Mimicking the morphology of long bone, *Cent. Eur. J. Chem.*, 10, 1949-1953.
217. Comanescu, C., Ficai, D., Ficai, A., Oprea, O., Lacatusu, I., and Guran, C. (2012) Lipase Immobilisation on New Silica-Based Supports, *J. Environ. Prot. Ecol.*, 13, 2302-2309.
218. Anghel, I., Holban, A. M., Grumezescu, A. M., Andronescu, E., Ficai, A., Anghel, A. G., Maganu, M., Lazar, V., and Chifiriuc, M. C. (2012) Modified wound dressing with phyto-nanostructured coating to prevent staphylococcal and pseudomonas biofilm development, *Nanoscale Res. Lett.*, 7, 1-8.
219. Anghel, I., Grumezescu, A. M., Andronescu, E., Anghel, A. G., Ficai, A., Saviuc, C., Grumezescu, V., Vasile, B. S., and Chifiriuc, M. C. (2012) Magnetite nanoparticles for functionalized textile dressing to prevent fungal biofilms development, *Nanoscale Res. Lett.*, 7, 7.
220. Titorencu, I., Albu, M. G., Popa, L., Ficai, A., Albu, L., Jinga, V., and Ghica, M. V. (2011) Collagen-Doxycycline Matrices Used in Tissue Engineering, *Farmacacia*, 59, 794-802.
221. Ilescu, R. I., Andronescu, E., Voicu, G., Ficai, A., and Covaliu, C. I. (2011) Hybrid materials based on montmorillonite and citostatic drugs: Preparation and characterization, *Appl. Clay Sci.*, 52, 62-68.
222. Ilie, A., Andronescu, E., Ficai, D., Voicu, G., Ficai, M., Maganu, M., and Ficai, A. (2011) New approaches in layer by layer synthesis of collagen/hydroxyapatite composite materials, *Cent. Eur. J. Chem.*, 9, 283-289.
223. Grumezescu, A. M., Andronescu, E., Ficai, A., Saviuc, C., Mihaiescu, D., and Chifiriuc, M. C. (2011) DEAE-cellulose/Fe₃O₄/cephalosporins hybrid materials for targeted drug delivery, *Rev Rom Mater*, 41, 383-387.

224. Fikai, M., Nedelcu, I. A., Fikai, D., Vasile, B. S., Fikai, A., and Andronescu, E. (2011) The Influence of Ultrasonication on the Formation of COLL/HA Composite Materials, *Mater. Plast.*, 48, 23-26.
225. Fikai, D., Fikai, A., Vasile, B. S., Fikai, M., Oprea, O., Guran, C., and Andronescu, E. (2011) Synthesis of Rod-Like Magnetite by Using Low Magnetic Field, *Dig. J. Nanomat. Biostr.*, 6, 943-951.
226. Fikai, D., Fikai, A., Alexie, M., Maganu, M., Guran, C., and Andronescu, E. (2011) Fe₃O₄/SiO₂/APTMS Nanoparticles with Core-Shell Structure as Potential Materials for Cooper Removal, *Rev Chim*, 62, 622-625.
227. Fikai, A., Fikai, D., Andronescu, E., Maganu, M., Voicu, G., and Sonmez, M. (2011) Biomimetic Mineralization of the Human Nasal Septum Cartilage, *Dig. J. Nanomat. Biostr.*, 6, 1377-1383.
228. Dumitrascu, M., Meltzer, V., Sima, E., Virgolici, M., Albu, M. G., Fikai, A., Moise, V., Minea, R., Vancea, C., Scarisoreanu, A., and Scarlat, F. (2011) Characterization of Electron Beam Irradiated Collagen-Polyvinylpyrrolidone (Pvp) and Collagen-Dextran (Dex) Blends, *Dig. J. Nanomat. Biostr.*, 6, 1793-1803.
229. Andronescu, E., Voicu, G., Fikai, M., Mohora, I. A., Trusca, R., and Fikai, A. (2011) Collagen/hydroxyapatite composite materials with desired ceramic properties, *J. Electron Microsc.*, 60, 253-259.
230. Stanciu, N. D., Jerca, V. V., Vuluga, D. M., Stanescu, P., Fikai, A., and Teodorescu, M. (2010) 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, 204-213.
231. Manzu, D., Pasare, L., Rata, D., Albu, B. G., Fikai, A., and Guran, C. (2010) Synthesis and characterization of the new hybrid composite membranes based on the organo-substituted phosphazene and SiO₂ network, *Rev Rom Mater*, 40, 65-70.
232. Manzu, D., Dumitru, F., Fikai, A., Razvan, A., and Guran, C. (2010) Organocyclophosphazenes Silica Hybrid Materials I. Synthesis and characterization of siloxane monomers and of cyclophosphazene SiO₂ composites, *Mater. Plast.*, 47, 292-298.
233. Fikai, M., Andronescu, E., Voicu, G., Fikai, D., Albu, M. G., and Fikai, A. (2010) Mollusc Shell/Collagen Composite as Potential Biomaterial for Bone Substitutes, *Rev Rom Mater*, 40, 359-364.
234. Fikai, M., Andronescu, E., Fikai, D., Voicu, G., and Fikai, A. (2010) Synthesis and characterization of COLL-PVA/HA hybrid materials with stratified morphology, *Colloid Surface B*, 81, 614-619.
235. Fikai, D., Fikai, A., Voicu, G., Vasile, B. S., Guran, C., and Andronescu, E. (2010) Polysulfone based Membranes with Desired Pores Characteristics, *Mater. Plast.*, 47, 24-27.
236. Fikai, A., Andronescu, E., Voicu, G., Ghitulica, C., Vasile, B. S., Fikai, D., and Trandafir, V. (2010) Self-assembled collagen/hydroxyapatite composite materials, *Chem Eng J*, 160, 794-800.
237. Fikai, A., Andronescu, E., Voicu, G., Ghitulica, C., and Fikai, D. (2010) The influence of collagen support and ionic species on the morphology of collagen/hydroxyapatite composite materials, *Mater Charact*, 61, 402-407.
238. Fikai, A., Andronescu, E., Voicu, G., Albu, M. G., and Ilie, A. (2010) Biomimetically Synthesis of Collagen / Hydroxyapatite Composite Materials, *Mater. Plast.*, 47, 205-208.
239. Fikai, A., Andronescu, E., Trandafir, V., Ghitulica, C., and Voicu, G. (2010) Collagen/hydroxyapatite composite obtained by electric field orientation, *Mater Lett*, 64, 541-544.
240. Andronescu, E., Fikai, M., Voicu, G., Fikai, D., Maganu, M., and Fikai, A. (2010) Synthesis and characterization of collagen/hydroxyapatite: magnetite composite material for bone cancer treatment, *J Mater Sci-Mater M*, 21, 2237-2242.
241. Albu, M. G., Ghica, M. V., Fikai, A., Titorencu, I., and Popa, L. (2010) 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*, 181-186.
242. Fikai, A., Andronescu, E., Voicu, G., Manzu, D., and Fikai, M. (2009) Layer by layer deposition of hydroxyapatite onto the collagen matrix, *Mat Sci Eng C-Mater*, 29, 2217-2220.
243. Fikai, A., Andronescu, E., Ghitulica, C., Voicu, G., Trandafir, V., Manzu, D., Fikai, M., and Pall, S. (2009) Collagen/Hydroxyapatite Interactions in Composite Biomaterials, *Mater. Plast.*, 46, 11-15.
244. Lupu, S., and Fikai, A. (2007) Layer by Layer Deposition of Redox Polymers/Enzyme Assemblies onto Electrodes Surfaces for Nitrate Electrochemical Sensing, *Rev. Roumaine Chim.*, 52, 1137-1143