

Universitatea Națională de Știință și Tehnologie POLITEHNICA București

Facultatea: **Inginerie Chimică și Biotehnologii**

Departamentul: **Chimie Anorganică, Chimie Fizică și Electrochimie**

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Gradul didactic: **Conferentiar**

L I S T A

lucrărilor științifice în domeniul disciplinelor din postul didactic

A. Teza de doctorat - Noi materiale organo-anorganice cu schelet polifosfazenic și aplicații ale acestora, **PHD THESIS**: Multifunctional nanomaterials

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

B.1. Cărți și capitole din cărți publicate la edituri din străinătate.

1. Oguzhan Gunduz, Christophe Egles, Roman A. Perez, **Denisa Ficai**, Cem Bulent Ustundag, Biomaterials and Tissue Engineering, Springer, 2023, ISSN 2196-8985,
2. Ludmila Motelica, Ovidiu Oprea, Denisa Ficai, and Anton Ficai; Introduction to Biomaterials and Tissue Engineering, (Chapter 1, pages 1-30) in Biomaterials and Tissue Engineering; Oguzhan Gunduz, Christophe Egles, Román A. Pérez, Denisa Ficai, Cem Bulent Ustundag (Editors); Springer; ISBN 978-3-031-35831-9; 390pages
3. Angela Spoială, Cornelia-Ioana Ilie, Denisa Ficai, and Anton Ficai; Biomaterials, Chapter 4, pages 97-130 in Biomaterials and Tissue Engineering; Oguzhan Gunduz, Christophe Egles, Román A. Pérez, Denisa Ficai, Cem Bulent Ustundag (Editors); Springer; ISBN 978-3-031-35831-9; 390pages
4. Paul Adrian Tărăbuță, Ludmila Motelica, Denisa Ficai, Ovidiu Oprea, Anton Ficai, and Ecaterina Andronescu; Drug Delivery Systems for Tissue Engineering, (Chapter 7, pages 205-238) in Biomaterials and Tissue Engineering; Oguzhan Gunduz, Christophe Egles, Román A. Pérez, Denisa Ficai, Cem Bulent Ustundag (Editors); Springer; ISBN 978-3-031-35831-9; 390pages
5. 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)**
6. 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); Nova Science Publishers, Inc.; pg 63 – 89; ISBN: 979-8-88697-557-4 (English)
7. **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)
8. **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)

9. Fikai A, **Fikai D**, Andronescu E, Yetmez M, Ozkalayci N, *et al.* Nanotechnology in dentistry. Nanobiomaterials in Dentistry: Applications of Nanobiomaterials: Elsevier Inc.; 2016. p. 187-210. (English);
10. **DENISA FICAI**, ANTON FICAI, ECATERINA ANDRONESCU; Advances in Cancer Treatment; Role of Nanoparticles; INTECH, 2015, 1-21 (English);
11. 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);
12. **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);
13. Anton FICAI, Ecaterina ANDRONESCU, Georgeta VOICU and **Denisa FICAI**; “Advances in Collagen/Hydroxyapatite Composite Materials” in “Advances in composite materials for medicine and nanotechnology” Editura INTECH, 2011, ISBN 978-953-307-235-7 pg. 3-32 (English);

B.2. Cărți și capitole din cărți publicate la edituri din țară.

1. Florina Dumitru, Cornelia Guran, Mihaela-Diana Serb, **Denisa Mânzu**, Chimia Metalelor Tranzitionala - Aplicatii, Ed Printech, Bucharest, 2008, ISBN 978-606-521-005-9, (198pg), (Romanian).
2. Anton FICAI, **Denisa Fikai (Mânzu)**, Volumetrie. De la teorie la aplicații de laborator, Editura Politehnica Press, 2009 ISBN 978-606-515-037-9 (170 pg) (**Romanian**);

C. Lucrări indexate ISI/BDI publicate în ultimii 10 ani

Peste 140 de lucrări din care 132 în reviste cotate ISI; citări 2485 (cu excepția autocitațiilor); Indicele Hirsh 29 (ISI).

1. L. Marinescu, L. Motelica, **D. Fikai**, A. Fikai, O.C. Oprea, E. Andronescu, A.M. Holban, A Two-Step Surface Modification Methodology for the Advanced Protection of a Stone Surface, Nanomaterials-Basel 14(1) (2024).
2. C.I. Ilie, A. Spoiala, L. Motelica, L. Marinescu, G. Dolete, D.R. Trusca, O.C. Oprea, **D. Fikai**, A. Fikai, M.J. Fabra, Decoration of a Glass Surface with AgNPs Using Thio-Derivates for Environmental Applications, Coatings 14(1) (2024).
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13. A.I. Lazar, K. Aghasoleimani, A. Semertsidou, J. Vyas, A.L. Rosca, **D. Fikai**, A. Fikai, Graphene-Related Nanomaterials for Biomedical Applications, *Nanomaterials-Basel* 13(6) (2023).
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D. Lucrări publicate în ultimii 10 anii în reviste și volume de conferințe cu referenți

1. Maria Sönmez, Mircea Juganaru, Anton Ficai, Ovidiu Oprea, Roxana Trușcă, Mihai Georgescu, Dana Gurău, **Denisa Ficai**, Laurenția Alexandrescu, Doina Constantinescu, Maria Daniela Stelescu, Mihaela Nițuică, Minodora Marin – “*Improvement of mechanical, thermal and morphostructural properties of sbs thermoplastic elastomer using kaolin and dolomite microparticles with modified surface*” - Proceedings of the 8th International Conference on Advanced Materials and Systems – 2020, p. 107-112, Bucharest, Romania;
2. Maria Sönmez, Mircea Jugănar, Anton Ficai, **Denisa Ficai**, Ovidiu Oprea, Dana Gurău, Laurenția Alexandrescu, Maria Daniela Stelescu, Mihai Georgescu, Mihaela Nițuică, Alina Melinescu, Minodora Marin – “*Dolomite surface modification with titania and silica precursors and its morphostructural and thermal characterisation*” - Proceedings of the 8th International Conference on Advanced Materials and Systems – 2020, p. 101-106, Bucharest, Romania;
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E. Brevete obținute în întreaga activitate

E. 1. Brevete internaționale, indicând toate datele oficiale de identificare.

1. Anton FICAI, Geanina Silviana 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

E.2. Brevete nationale

1. Anton FICAI, Geanina Silviana BANU, **Denisa FICAI**, Claudiu Virgil BANU, Nicolae COSTACHE, Procedeu de obținere a nanopulberilor, instalație pentru realizarea procedului și nanopulberi astfel obținute, cerere de brevet națională înregistrată la OSIM cu nr. A/00415 din 12.06.2018; [RO133758 \(B1\)](#).
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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, **Denisa Ficai**, G. Voicu, M. G. Albu; Process for preparing composite multi-purpose materials with possible applicability in the treatment of bone cancer / Procedeu de obtinere a unor materiale compozite, multifunctionale, cu potentiale aplicatii în tratarea cancerului osos, Patent No. RO127725/30. 03. 2015 issued by OSIM; [RO127725B1](#);
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- 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](#);
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