

# LISTA DE LUCRĂRI

Conf.Dr. Ing. Marian Miculescu

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### **2.3 Brevete de inventie acordate, neindexate/indexate ISI Thomson Reuters-Web of Science-Derwent Innovations Index**

1. Maraging steel meant to be used at high temperatures and method for the thermal treatment thereof, Patent Number(s): RO123056-B1, Botan V, Branzei M, Carceanu I, Epure S, Marta C, **Miculescu M**, Nedelcu D, Nedelcu I, Roceanu I, Derwent Primary Accession Number: 2010-M72720

### **2.4 Granturi / proiecte de cercetare castigate prin competitie**

#### **2.4.1 Director/responsabil**

1. Grant CNCIS – tip TD (competitia 2004), Tema Nr. 14, Cod CNCIS 438, Unic Partener UPB, - Cercetari experimentale privind posibilitatile de caracterizare termofizica a unor biomateriale metalice in diferite stari de prelucrare metalurgica, 2004-2006. Director Proiect (3 ani)
2. Contract nr. 130/2004 program INVENT (competitia 2004), Contractor SC BIMETAL SA; partener UPB. Asimilarea tehnologiei de fabricatie a platinelor din oteluri inoxidabile feritice economice, W 4510, W 4521, destinate fabricarii echipamentelor pentru industria alimentara, prin practicarea desulfurarii avansate cu ajutorul dispozitivului brevetat. Responsabil Contract (3 ani)

#### **2.4.2 Membru in echipa**

##### *Proiecte internationale*

- 1) FP6 "Magnesium forged components for structural lightweight automotive applications", MAGFORGE Responsabil contract Prof.dr.ing. Petru Moldovan. (3 ani)
- 2) FP6-Marie Curie Actions-ToK; Contract nr. 014059/2005; Intensive Program for Transfer of Knowledge to Eastern Europe Reference Pole for Micro- and Nanotechnologies (NANOTEC-EST), Director de contract Meghea Aurelia/Bunea Daniel. (3 ani)
- 3) FP7-NMP-2007-LARGE-1, Proiect nr.293104/2008, Novel biofunctional polymer scaffolds and techniques for the regeneration and repair of degenerate intervertebral disc, Acronym Disc Regeneration; Collaborative Project; Large-scale integrating project; Work programme topics addressed: NMP-2007-2.3-1; Director proiect: Prof. Luigi Ambrosio. (3 ani)

4) COST MP0602 - "Advanced Solder Materials for High Temperature Application (HISOLD)", Responsabil de contract Prof.Dr.Ing. Svasta Paul. (3 ani)

#### *Proiecte naționale*

- Pnc1. Grant ANSTI Contract Nr. 5076/1999, Nr. temă A1, Cercetări privind posibilitățile de utilizare a materialelor din producția națională ca materiale biocompatibile și elaborarea de noi materiale cu ajutorul tehnicilor moderne de prelucrare metalurgică și de depuneri electrochimice, Director de contract Prof.Dr.Ing. Bunea Daniel. (3 ani) 6
- Pnc2. Grant CNCSIS Contract 34967/2001, Nr. temă 15, Cod CNCSIS 600/2001, Cercetări privind stabilirea unei tehnologii ecologice de reciclare a deșeurilor de titan în vederea obținerii unui nou aliaj de titan utilizabil ca biomaterial, Director de contract Iulian Antoniac. (2 an)
- Pnc3. Grant CNCSIS tip A, contract Nr. 34967/2001, tema nr.63, Cod CNCSIS 601, Cercetări privind prelucrările metalurgice ale oțelurilor inoxidabile austenitice biocompatibile, utilizând tehnica vidului, Director de contract Prof.Dr.Ing. Daniel Bunea. (1 an) 2
- Pnc4. Contract INFOSOC Nr. 18/2001, Centru virtual de selecție a biomaterialelor, Director de contract Prof.Dr.Ing. Târcolea Mihail. (3 ani)
- Pnc5. Contract BIOTECH Nr.82/2001, Modelarea și cuantificarea interacțiilor biomaterialelor și implantelor cu mediul gazda și/sau țesut implantat prin metode avansate, Director de contract Caloianu Maria. (3 ani)
- Pnc6. Contract RELANSIN S9 Nr. 1473/2001, Centru de biomateriale, Responsabil de contract Prof.Dr.Ing Zamfir Simona. (3 ani)
- Pnc7. Contract RELANSIN S13 Nr. 1474/2001, Realizarea protezelor articulare de șold, Director de contract Brânzei Mihai. (3 ani)
- Pnc8. Contract RELANSIN / Nr. 1740/2003, Tehnologii noi pentru fabricarea de etaloane spectrale din oțeluri și aliaje complexe, Responsabil contract Pencea Ion. (2 ani) 4
- Pnc9. Contract RELANSIN S8 Nr. 1771/2003, Laborator mobil pentru determinarea de la distanță a amprentei termice a tehnicii militare în gama spectrală  $2 \div 5\mu\text{m}$  și  $8 \div 12\mu\text{m}$ , Responsabil de contract Conf.Dr.Ing. Pencea Ion. (2 ani)
- Pnc10. Contract CERES Nr. 4-116/2004, Cercetari privind influenta gradului de prelucrare al suprafeței biomaterialelor metalice asupra proceselor de osteointegrare în țesuturile biologice, Responsabil contract CEEX Prof.dr.ing. Bunea Daniel. (2 ani)
- Pnc11. Contract RELANSIN S3, Subcontract Nr. 1964/2004, Modernizarea echipamentelor și aplicațiilor în transportul și distribuția gazelor naturale prin realizarea și utilizarea de adezivi și paste de etanșare cu proprietăți specifice, APEG, Responsabil de contract Prof.Dr.Fiz. Bojin Dionezie. (2 ani)
- Pnc12. Contract RELANSIN S3, PDT, 2025/2004, Realizarea tehnologiei de prelucrare a unor aliaje biocompatibile pe bază de metale nobile, Responsabil de contract Prof.Dr.Ing. Răducanu Doina. (2 ani) 4
- Pnc13. Contract RELANSIN Nr. 2146/2004, Gamă de depărtătoare autostatice cu multiple aplicații chirurgicale, Responsabil de contract Antoniac Iulian. (18 luni)
- Pnc14. Contract AGRAL S5, Nr. 267/2004, Realizarea și dezvoltarea unui echipament modern, destinat ambalării produselor alimentare portionate, prin metoda top sealing, Responsabil de contract Antoniac Iulian. (2 ani)
- Pnc15. Contract CEEX 46/2005 Retea tehnologica integrata de cercetare a structurilor avansate biocompatibile pentru implanturi dentare, Rete-β-dent, Responsabil contract Prof.dr.ing. Târcolea Mihai. (3 ani)
- Pnc16. Contract CEEX nr.121/10.10.2005, Analiza aprofundată privind implicațiile structurale rezultate din utilizarea combustibililor alternativi la fabricarea cimentului, IARIS, Responsabil de contract: Miculescu Florin (3 ani)

- Pnc17. Contract CEEX nr. 06-10-89/2006, Producerea și studiul comportării acoperirilor din carbon, wolfram și beriliu folosit la primul perete al instalațiilor de fuziune termonucleară, FUSITERMAT, Responsabil de contract: Miculescu Florin (2 ani) 6
- Pnc18. Contract CEEX Nr. 21/2006, Dinamica și structura fluxului în supraconductori nanostructurați sau cvasi-bidimensionali, FLUXDIN, Responsabil de contract Prof.Dr.Fiz. Bojin Dionezie. (2 ani)
- Pnc19. Contract CEEX Nr. 06-10-82/2006 Cercetări avansate privind dezvoltarea unei structuri de moderare, focalizare și accelerare fascicule de pozitroni monoenergetici în domeniul 0,8-50 keV, utilizată la determinările de defecte de tip vacanță sau aglomerări de goluri în materia condensată, TUN POZITRONIC, Responsabil de contract Prof.Dr.Fiz. Bojin Dionezie. (2 ani)
- Pnc20. Contract CEEX Nr. 116/2006, Studii fundamentale privind integrarea osoasă și epiteli-coniunctivă a implantului dentar în scopul creșterii performanțelor pe termen lung, DIOBONE, Responsabil de contract Prof.Dr.Fiz. Bojin Dionezie. (3 ani)
- Pnc21. Contract CEEX RELANSIN Nr. 142/2006, Cercetări privind eco-ingineria produselor de protecție anticorozivă peliculogene, ECOINGPRO, Responsabil de contract Prof.Dr.Fiz. Bojin Dionezie. (2 ani)
- Pnc22. Contract CEEX-VIASAN Nr. 150/2006, Dezvoltarea de noi tehnici Laser pentru proiectarea și fabricarea de biosenzori, BIOSENSOR, Responsabil contract Conf.dr.ing. Ciucă Sorin. (3 ani)
- Pnc23. Contract CEEX-VIASAN Nr. 165/2006, Dezvoltarea de tehnici inovative în chirurgia abdominală bazate pe utilizarea unor structuri biointegrabile și dezvoltarea de noi metode de evaluare a biodegradabilității acestora, MEBIOS, Responsabil S.I.dr.ing. Antoniac Iulian. (2 ani)
- Pnc24. Contract CEEX Nr.166/P1/2006, Cercetări privind preprocesarea materialelor compozite avansate cu matrice metalică MMCs și ceramică CMCs, MAT-COM, Responsabil contract Prof.dr.fiz. Bojin Dionezie. (2 ani)
- Pnc25. Contract CEEX RELANSIN Nr.235/2006, Biofuncționalizarea suprafeței implanturilor pentru osteosinteza, OSTEOSURF, Responsabil de contract S.I.dr.ing. Antoniac Iulian. (2 ani)
- Pnc26. Contract CNMP Nr. 71-032/2007, Valve de Spin: De la metode combinatoriale de procesare la proprietăți performante, VALS, Responsabil de contract: Miculescu Florin (3 ani)
- Pnc27. Contract CEEX RELANSIN Nr. 297/2006, Cercetări privind mecanismul durificării și stabilitatea la cald a oțelurilor de tip maraging, MEDUR, responsabil Conf.dr.ing. Brânzei Mihai. (2 ani)
- Pnc28. Contract CNMP Nr. 31-001/2007, Sistem mobil de monitorizare rapidă a agenților biologici și chimici pentru obiective de importanță strategică, Responsabil de contract Prof.Dr.Fiz. Bojin Dionezie. (3 ani)
- Pnc29. Contract CNMP Nr. 81-002/2007, Sistem mobil de detecție, identificare și monitorizare biologică și chimică, LITECAT, Responsabil de contract Prof.Dr.Fiz. Bojin Dionezie. (3 ani) 6
- Pnc30. Contract CNMP Nr. 32-165/2008, Medii de epurare controlată a apelor contaminate chimic și biologic, Responsabil de contract Prof.Dr.Fiz. Bojin Dionezie. (3 ani) 6
- Pnc31. Contract CNMP Nr. 72-223/2008, Cercetări avansate pentru producerea acoperirilor combinatoriale de interes pentru fuziune, CAPACIF, Responsabil de contract: Miculescu Florin (3 ani)
- Pnc32. Contract TE Nr.144/2010. "Metode combinate de evaluare a trasabilității contaminării persoanelor cu metale grele în corelație cu metabolismul țesuturilor dure umane", Director de contract: Miculescu Florin (3 ani)



- Pnc33. Contract TE Nr. 297/2015. "Integrated technology for custom-made biomimetic implants development used for major bone defects reconstruction" (2 ani)  
Contract TE Nr. /2015 Director Conf.dr.ing. Stefan Ioan Voicu (2 ani)
- Pnc34 Contract PN-III-P2-2.1-PED-2016-0892, PED-2016-1657, "O noua tehnologie pentru sinteza și fabricarea implanturilor biomimetice derivate din surse biogene utilizate pentru chirurgia reconstructivă osoasă", BioImMS. (2 ani)

### **A3.3 Membru in colectivele de redactie sau comitete stiintifice ale revistelor si manifestarilor stiintifice, organizator de manifestari stiintifice / Recenzor pentru reviste si manifestari stiintifice nationale si internationale**

#### **3.3.1 ISI**

Editor – Materials, Special Issue Advanced Composite Biomaterials

Recenzor:

1. Journal of Nanomaterials (cotat ISI)
2. Coatings (cotat ISI)
3. Materials (cotat ISI)
4. Vacuum (cotat ISI)
5. Materialia (cotat ISI)
6. Buletinul UPB seria B

#### **3.3.1 BDI**

Recenzor reviste:

1. Key Engineering Materials
2. Advanced Materials Research

Recenzor conferinte:

1. BiomMedD2014
2. RoMat2014
3. BioRemed2015
4. BiomMedD2016
5. RoMat2016
6. BiomMedD2018

### **3.4 Expert evaluare proiecte de cercetare**

#### **3.4.1 Nationale**

Expert evaluator în Comisia de Materiale 2016-prezent (62 proiecte/2017). Puncte  $62 \cdot 5 = 310$

### **3.5. Premii (fara premiarea articolelor de catre UEFISCDI)**

#### **3.5.3. Premii internaționale**

1. Locul II la Conferința Internațională Journées Scientifiques du CFBD, 2003, Neuchâtel, l'Espace Perrier de Marin-Epanier, Suisse, D.Bunea, D.Bojin, S.Zamfir, F.Miculescu, M.Miculescu, Experimental research concerning the Co-Cr-Mo alloys used in implantology.
2. Grand Prize and Cup in recognition of high scientific contribution and loyalty to the XXI<sup>th</sup> International Salon of Research, Innovation and Technological Transfer "INVENTICA 2017", 28-30 Iunie, Iași, Romania.
3. Gold Medal "INVENTICA 2017" for the invention "Mechano – electrical drier" at the XXI<sup>th</sup> International Salon of Research, Innovation and Technological Transfer "INVENTICA 2017", 28-30 Iunie, Iași, Romania.
4. Gold Medal "INVENTICA 2017" for the invention "Method for obtaining hydroxyapatite scaffolds with predetermined physico-chemical characteristics for major bone reconstruction" at the XXI

th International Salon of Research, Innovation and Technological Transfer “Inventica 2017”, 28-30 Iunie, Iași, Romania.

5. Medalia de aur și Diploma de Excelență pentru invenția “Mechano – electrical drier” la Salonul Internațional al Cercetării, Inovării și Inventicii “Pro Invent” ediția a XV-a, 2017, Cluj-Napoca, Romania.
6. Medalia de aur pentru invenția “Procedeu de obținere a unui produs tip scaffold pe bază de hidroxiapatită, pentru reconstrucția defectelor osoase majore, cu proprietăți fizico-chimice predeterminate” la Salonul Internațional de Invenții și Inovații “Traian Vuia” Ediția a III-a, 7-9 Iunie 2017, Timișoara, Romania.
7. Medalia de aur pentru invenția “Uscător de rufe mecano - electric” la Salonul Internațional de Invenții și Inovații “Traian Vuia”, Ediția a III-a, 7-9 Iunie 2017, Timișoara, Romania.
8. Excellence Diploma and Special Prize (Trophy) pentru invenții valoroase (RO001/2017) la Salonul Internațional de Invenții și Inovații “Traian Vuia”, Ediția a III-a, 7-9 Iunie 2017, Timișoara, Romania.
9. Prize of Romanian Inventors Forum at European Exhibition of Creativity and Innovation “EUROINVENT 2017”, 25-27 May 2017, Iași, Romania.
10. Gold Medal for the invention “Method for obtaining hydroxyapatite scaffolds with predetermined physico-chemical characteristics for major bone reconstruction” at European Exhibition of Creativity and Innovation “EUROINVENT 2017”, 25-27 May 2017, Iași, Romania.
11. Gold Medal for the invention “Mechano – electrical drier” at European Exhibition of Creativity and Innovation “EUROINVENT 2017”, 25-27 May 2017, Iași, Romania.
12. Diploma de Excelență a Universității Tehnice a Moldovei pentru invenția “Mechano – electrical drier”
13. Diploma de excelență și medalia de aur la International Fair of Inventions and Practical Ideas Invent – Invest 2017, Ungheni, Republica Moldova, 12-15 November 2017 pentru cererea de brevet “Method for Obtaining Hydroxyapatite Scaffolds with Predetermined Physico - Chemical Characteristics for Major Bone Reconstruction”.
14. Medalia de aur și Mențiune pentru cererea de brevet “Method for Obtaining Hydroxyapatite Scaffolds with Predetermined Physico-Chemical Characteristics for Major Bone Reconstruction”, prezentată la International Warsaw Invention Show IWIS 2017, Polonia.

#### **3.5.4. Premii naționale**

1. Premiul SRB 2005 - secțiunea Postere - F. Miculescu, I. Antoniac, M. Miculescu, L.T. Ciocan, Influence of the implant surface preparation on the bone ingrowth, Al V-lea Simpozion Național de Biomateriale, Iași, România. Puncte = 5, Punctaj = 5p

#### **Laboratoare dezvoltate**

- 2007 – Proprietati termofizice (UPB - JK211)

**Data,**  
15.04.2019

**Semnatura,**  
Conf.Dr.Ing. Marian Miculescu