

# LISTA DE LUCRARI

## Prof.dr.ing. Vasile-Danut COJOCARU

<http://www.researcherid.com/rid/F-8959-2010>

<http://www.scopus.com/authid/detail.url?authorId=57209909440>

### I. TEZA (E) DE DOCTORAT (T)

- T1. *Deformarea pseudo-elasto-plastica a aliajelor care contin elemente din categoria metalelor de tranzitie*, Universitatea POLITEHNICA Bucuresti, 2001.

### II. CĂRȚI PUBLICATE (C)

#### Ca – Cărți/capitole ca autor, edituri naționale.

- Ca1. A. Nocivin, **V.D. Cojocaru**, I. Cinca, D. Raducanu. *Nanomateriale si nanotehnologii*, 156 pag., Ed. PRINTECH, Bucuresti, 2010, ISBN 978-606-521-503-0;
- Ca2. E. Cazimirovici, M. Tarcolea, I. Negulescu, **V.D. Cojocaru**, M.C. Cotrut. *Cap. 2 Procesarea prin laminare a materialelor metalice*, TRATAT DE STIINTA SI INGINERIA MATERIALELOR, Vol. 4, Tehnologii de procesare primara a materialelor metalice, 383 pag., Ed. AGIR, Bucuresti, 2010, ISBN 978-973-720-313-7, ISBN 973-720-064-0;
- Ca3. **V.D. Cojocaru**. *Plasticitatea atipica a mediilor de tip continuu*, 148 pag., Ed. PRINTECH, Bucuresti, 2007, ISBN 978-973-718-765-9;
- Ca4. D. Raducanu, **V.D. Cojocaru**, I. Cinca. *Elemente de design folosite in ingineria materialelor*, 142 pag., Ed. Cartea Universitara, Bucuresti, 2007, ISBN 978-973-731-503-8;

#### Cb – Cărți/capitole ca editor, edituri naționale.

- Cb1. D. Raducanu, I. Cinca, A. Nocivin, **V.D. Cojocaru**. *Materiale nanostructurate biocompatibile pentru aplicatii medicale*, 163 pag., Vol. I, Ed. PRINTECH, Bucuresti, 2008, ISBN 978-606-521-002-8;
- Cb2. D. Raducanu, I. Cinca, A. Nocivin, **V.D. Cojocaru**. *Materiale nanostructurate biocompatibile pentru aplicatii medicale. Contributii la dezvoltarea domeniului*, 203 pag., Vol. II, Ed. PRINTECH, Bucuresti, 2008, ISBN 978-606-521-007-3;
- Cb3. D. Raducanu, **V.D. Cojocaru**, I. Cinca, A. Nocovin. *Retea integrata de cercetare pentru constituirea unei platforme tehnologice de biomateriale avansate compatibila EuMaT*, 85 pag., Ed. PRINTECH, Bucuresti, 2007, ISBN 978-973-718-768-0;

#### Cc – Manuale didactice/monografii.

- Cc1. **V.D. Cojocaru**. *Agregate specifice procesarii prin deformare plastica (Note curs)*, 100 pag., UPB, Bucuresti, 2015, format electronic;
- Cc2. **V.D. Cojocaru**. *Extrudarea metalelor si aliajelor (Note curs)*, 100 pag., UPB, Bucuresti, 2015, format electronic;
- Cc3. F. Stefanescu, M. Chisamera, **V.D. Cojocaru**, S. Stan, O. Trante. *Controlul de calitate in metalurgia extractiva si procesarea materialelor metalice*, 84 pag., Editura Academiei Oamenilor de Stiinta din Romania, Bucuresti, 2011, ISBN 978-606-8371-32-0;

- Cc4. S. Stan, M. Chisamera, F. Stefanescu, P. Toboc, **V.D. Cojocaru**, N. Constantin. *Materii prime si materiale folosite in metalurgia extractiva si procesarea materialelor metalice*, 84 pag., Editura Academiei Oamenilor de Stiinta din Romania, Bucuresti, 2011, ISBN 978-606-8371-56-6;
- Cc5. D. Raducanu, A. Nocivin, **V.D. Cojocaru**, I. Cinca. *Notiuni de biomecanica pentru ingineria materialelor*, 136 pag., Ed. PRINTECH, Bucuresti, 2009, ISBN 978-606-521-262-6;
- Cc6. D. Raducanu, **V.D. Cojocaru**, I. Cinca. *Cap. 29.2 Materiale cu comportare atipica la solicitari mecanice*, TRATAT DE STIINTA SI INGINERIA MATERIALELOR, Vol. 3, Metale. Aliaje. Materiale speciale. Materiale compozite, 24 pag., Ed. AGIR, Bucuresti, 2009, ISBN 978-973-720-261-1, ISBN 978-973-720-064-0;

I - Culegeri și îndrumare publicate (separate în edituri cu ISBN și în tipografiile locale/de instituții sau de uz intern).

- I1. D. Raducanu, E. Cazimirovici, I. Cinca, **V.D. Cojocaru**, L. Angelescu, I. Negulescu. *Principii teoretice, tipuri de teste si aplicatii practice in mecanica ruperii*, Ed. PRINTECH, 1999, ISBN 973-9475-50-7 (pag. 83);

D - Alte lucrări publicate: capitole publicate în volume colective, capitole teoretice redactate, sisteme de laborator funcționale etc.

### III. ARTICOLE / STUDII IN EXTENSO PUBLICATE (R)

Ris - Reviste de specialitate de circulație internațională recunoscute (cotate / indexate ISI Thomson Reuters, sau indexate in alte Baze de Date Internationale - BDI specifice domeniului, care fac un proces de selectie a revistelor pe baza unor criterii de performanta).

- Ris1. E.M. Cojocaru, A. Nocivin, D. Raducanu, M.L. Angelescu, I. Cinca, I.V. Balkan, N. Serban, **V.D. Cojocaru**. *Microstructure evolution during hot deformation of UNS S32750 Super-Duplex Stainless Steel alloy*, Materials, 14 (14) 2021, 3916, ISSN 1996-1944, [DOI:10.3390/ma14143916](https://doi.org/10.3390/ma14143916); ISI-Web of Science/Science Citation Index Expanded - [WOS:000676365200001](https://www.scopus.com/search/form.do?db=WOS&id=WOS:000676365200001); Factor de impact 2020: 3,623
- Ris2. A. Nocivin, D. Raducanu, B. Vasile, C. Trisca-Rusu, E.M. Cojocaru, A. Dan, R. Irimescu, **V.D. Cojocaru**. *Tailoring a low young modulus for a beta titanium alloy by combining Severe Plastic Deformation with Solution Treatment*, Materials, 14 (13) 2021, 3467, ISSN 1996-1944, [DOI:10.3390/ma14133467](https://doi.org/10.3390/ma14133467); ISI-Web of Science/Science Citation Index Expanded - [WOS:000671097100001](https://www.scopus.com/search/form.do?db=WOS&id=WOS:000671097100001); Factor de impact 2020: 3,623
- Ris3. D. Raducanu, **V.D. Cojocaru**, A.V. Raducanu, A. Nocivin, N. Serban, I. Cinca, E.M. Cojocaru, L. Moldovan, C. Trisca-Rusu, I.V. Balkan. *Design and optimization of a Curved-Crease-Folding process applied to a light metallic structure*, Processes, 9 (70) 2021, 1110, ISSN 2227-9717, [DOI:10.3390/pr9071110](https://doi.org/10.3390/pr9071110); ISI-Web of Science/Science Citation Index Expanded - [WOS:000677018100001](https://www.scopus.com/search/form.do?db=WOS&id=WOS:000677018100001); Factor de impact 2020: 2,847
- Ris4. E.M. Cojocaru, D. Raducanu, A. Nocivin, **V.D. Cojocaru**. *Influence of ageing treatment temperature and duration on sigma-phase precipitation and mechanical properties of UNS S32750 SDSS alloy*, Journal of Advanced Research, 30 (30) 2021, 53-61, ISSN 2090-1232, [DOI:10.1016/j.jare.2020.11.005](https://doi.org/10.1016/j.jare.2020.11.005); ISI-Web of Science/Science Citation Index Expanded - [WOS:000652682400005](https://www.scopus.com/search/form.do?db=WOS&id=WOS:000652682400005); Factor de impact 2020: 10,479
- Ris5. **V.D. Cojocaru**, A. Nocivin, C. Rusu-Trisca, A. Dan, R. Irimescu, D. Raducanu, M.B. Galbinas. *Improving the mechanical properties of a beta-type Ti-Nb-Zr-Fe-O alloy*, Metals, 10 (11) 2020, 1491, ISSN 2075-4701, [DOI:10.3390/met10111491](https://doi.org/10.3390/met10111491); ISI-Web of Science/Science Citation Index Expanded - [WOS:000593341200001](https://www.scopus.com/search/form.do?db=WOS&id=WOS:000593341200001); Factor de impact 2020: 2,351
- Ris6. M.H.I. Alluaibi, E.M. Cojocaru, A. Rusea, N. Serban, G. Coman, **V.D. Cojocaru**. *Microstructure and Mechanical Properties Evolution during Solution and Ageing Treatment for a Hot Deformed, above  $\beta$ -transus, Ti-6246*

- Alloy, Metals*, 10 (9) 2020, 1114, ISSN 2075-4701, [DOI:10.3390/met10091114](https://doi.org/10.3390/met10091114); ISI-Web of Science/Science Citation Index Expanded - [WOS:000580086400001](https://www.scopus.com/search/form.do?db=WOS&id=WOS:000580086400001);  
Factor de impact 2020: 2,351
- Ris7. D. Raducanu, **V.D. Cojocaru**, A. Nocivin, I. Cinca, N. Serban, E.M. Cojocaru.  *$\beta$ -Phase Stability of Two Biomedical  $\beta$ -Titanium Alloys During Severe Plastic Deformation*, *JOM-US*, 72 (8) 2020, 2937-2948, ISSN 1047-4838, [DOI:10.1007/s11837-020-04235-z](https://doi.org/10.1007/s11837-020-04235-z); ISI-Web of Science/Science Citation Index Expanded - [WOS:000537349600003](https://www.scopus.com/search/form.do?db=WOS&id=WOS:000537349600003);  
Factor de impact 2020: 2,471
- Ris8. E.M. Cojocaru, D. Raducanu, N. Vintila, S.S. Alturahi, N. Serban, A.C. Berbecaru, **V.D. Cojocaru**. *Influence of ageing treatment on microstructural and mechanical properties of a solution treated UNS S32750/EN 1.4410/F53 Super Duplex Stainless Steel (SDSS) alloy*, *Journal of Materials Research and Technology*, 9 (4) 2020, 8592-8605, ISSN 2238-7854, [DOI:10.1016/j.jmrt.2020.05.127](https://doi.org/10.1016/j.jmrt.2020.05.127); ISI-Web of Science/Science Citation Index Expanded;  
Factor de impact 2020: 5,039
- Ris9. M.L. Angelescu, **V.D. Cojocaru**, N. Serban, E.M. Cojocaru. *Evaluation of hot deformation behaviour of UNS S32750 super duplex stainless steel (SDSS) alloy*, *Metals*, 10 (5) 2020, 673, ISSN 2075-4701, [DOI:10.3390/met10050673](https://doi.org/10.3390/met10050673); ISI-Web of Science/Science Citation Index Expanded - [WOS:000540220000121](https://www.scopus.com/search/form.do?db=WOS&id=WOS:000540220000121);  
Factor de impact 2020: 2,351
- Ris10. E.M. Cojocaru, D. Raducanu, S.S. Alturahi, A. Nocivin, G. Coman, **V.D. Cojocaru**. *Influence of isochronal treatments on microstructure and mechanical properties of solution treated UNS S32750 SDSS alloy specimens*, *Journal of Materials Research and Technology*, 9 (4) 2020, 7870-7879, ISSN 2238-7854, [DOI:10.1016/j.jmrt.2020.05.056](https://doi.org/10.1016/j.jmrt.2020.05.056); ISI-Web of Science/Science Citation Index Expanded;  
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Factor de impact 2019: 1,652
- Ris12. E.M. Cojocaru, D. Raducanu, A. Nocivin, I. Cinca, A.N. Vintila, N. Serban, M.L. Angelescu, **V.D. Cojocaru**. *Influence of aging treatment on microstructure and tensile properties of a hot deformed UNS S32750 super duplex stainless steel (SDSS) alloy*, *Metals*, 10 (3) 2020, 353, ISSN 2075-4701, [DOI:10.3390/met10050673](https://doi.org/10.3390/met10050673); ISI-Web of Science/Science Citation Index Expanded - [WOS:000530137000057](https://www.scopus.com/search/form.do?db=WOS&id=WOS:000530137000057);  
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- Ris13. D. Raducanu, **V.D. Cojocaru**, A. Nocivin, I. Cinca, N. Serban, E.M. Cojocaru. *Surface Modifications of Biomedical Gum-Metal-Type Alloy by Nano Surface—Severe Plastic Deformation*, *JOM-US*, 71 (11) 2019, 4114-412, ISSN 1047-4838, [DOI:10.1007/s11837-019-03667-6](https://doi.org/10.1007/s11837-019-03667-6); ISI-Web of Science/Science Citation Index Expanded - [WOS:000491296400040](https://www.scopus.com/search/form.do?db=WOS&id=WOS:000491296400040);  
Factor de impact 2019: 2,029
- Ris14. N. Serban, **V.D. Cojocaru**, M.L. Angelescu, D. Raducanu, I. Cinca, A.N. Vintila, E.M. Cojocaru. *High temperature deformation behaviour of an industrial S32760/1.4501/F55 super duplex stainless steel (SDSS) alloy*, *Metallurgia Italiana*, 111 (5) 2019, 41-48, ISSN 0026-0843; ISI-Web of Science/Science Citation Index Expanded - [WOS:000471318000010](https://www.scopus.com/search/form.do?db=WOS&id=WOS:000471318000010);  
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- Ris15. D. Raducanu, **V.D. Cojocaru**, N. Serban, C. Trisca-Rusu, M.G. Necula, R.A. Mudrac, I. Dan, A. Nocivin, I. Cinca. *Processing and properties of a new biodegradable Mg–Zn–Ca–Zr alloy*, *MATERIALWISSENSCHAFT UND WERKSTOFFTECHNIK*, 50 (5) 2019, 553-564, ISSN 0933-5137, [DOI:10.1002/mawe.201800232](https://doi.org/10.1002/mawe.201800232); ISI-Web of Science/Science Citation Index Expanded - [WOS:000454651700027](https://www.scopus.com/search/form.do?db=WOS&id=WOS:000454651700027);  
Factor de impact 2019: 0,744

- Ris16. R. Bolmaro, A.C. Parau, V. Pruna, M.A. Surmeneva, L.R. Constantin, M. Avalos, C.M. Cotrut, R. Tutuianu, M. Braic, V.D. Cojocaru, I. Dan, S. Croitoru, R.A. Surmenev, A. Vladescu. *Investigation of cast and annealed Ti25Nb10Zr alloy as material for orthopedic devices*, Journal of Materials Research and Technology, 8 (4) 2019, 3399-3414, ISSN 2238-7854, [DOI:10.1016/j.jmrt.2019.06.006](https://doi.org/10.1016/j.jmrt.2019.06.006); ISI-Web of Science/Science Citation Index Expanded - [WOS:000475748000002](https://www.scopus.com/search/form.do?dbId=111522&url=https://www.scopus.com/urn:sid:000475748000002);  
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- Ris17. D. Raducanu, **V.D. Cojocaru**, A. Nocivin, I. Cinca, N. Serban, E.M. Cojocaru. *Contributions to Mechanical Characteristics Improvement of Some Biomedical TNTZ Alloys by Adding Fe, Si, and O: A Comparative Study*, JOM-US, 71 (1) 2019, 264-271, ISSN 1047-4838, [DOI:10.1007/s11837-018-3091-x](https://doi.org/10.1007/s11837-018-3091-x); ISI-Web of Science/Science Citation Index Expanded - [WOS:000454651700027](https://www.scopus.com/search/form.do?dbId=111522&url=https://www.scopus.com/urn:sid:000454651700027);  
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Factor de impact 2017: 2,259
- Ris19. **V.D. Cojocaru**, N. Serban, M.L. Angelescu, E.M. Cojocaru, I. Cinca, D. Raducanu, A.N. Vintila. *Effect of short duration solution treatment at temperatures below 1000 degrees C on sigma-phase precipitation in a super duplex stainless steel alloy*, MATERIALWISSENSCHAFT UND WERKSTOFFTECHNIK, 45 (5) 2018, 530-537, ISSN 0933-5137, [DOI:10.1002/mawe.201700280](https://doi.org/10.1002/mawe.201700280); ISI-Web of Science/Science Citation Index Expanded - [WOS:000433499500004](https://www.scopus.com/search/form.do?dbId=111522&url=https://www.scopus.com/urn:sid:000433499500004);  
Factor de impact 2018: 0,556
- Ris20. **V.D. Cojocaru**, N. Serban. *Effects of solution treating on microstructural and mechanical properties of a heavily deformed new biocompatible Ti-Nb-Zr-Fe alloy*, Metals, 8 (5) 2018, 297, ISSN 2075-4701, [DOI:10.3390/met8050297](https://doi.org/10.3390/met8050297); ISI-Web of Science/Science Citation Index Expanded - [WOS:000435109300007](https://www.scopus.com/search/form.do?dbId=111522&url=https://www.scopus.com/urn:sid:000435109300007);  
Factor de impact 2018: 2,259
- Ris21. V. Mitran, V. Dinca, R. Ion, V.D. Cojocaru, P. Neacsu, C.Z. Dinu, L. Rusen, S. Brajnicov, A. Bonciu, M. Dinescu, D. Raducanu, I. Dan, A. Cimpean. *Graphene nanoplatelets-sericin surface-modified Gum alloy for improved biological response*, RSC Advances, 8 (33) 2018, 18492-18501, ISSN 2046-2069, [DOI:10.1039/c8ra01784k](https://doi.org/10.1039/c8ra01784k); ISI-Web of Science/Science Citation Index Expanded - [WOS:000433428300037](https://www.scopus.com/search/form.do?dbId=111522&url=https://www.scopus.com/urn:sid:000433428300037);  
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- Ris22. A. Nocivin, **V.D. Cojocaru**, D. Raducanu, I. Cinca, M.L. Angelescu, I. Dan, N. Serban, E.M. Cojocaru. *Finding an Optimal Thermo-Mechanical Processing Scheme for a Gum-Type Ti-Nb-Zr-Fe-O Alloy*, Journal of Materials Engineering and Performance, 26 (9) 2017, 4373-4380, ISSN 1059-9495, [DOI:10.1007/s11665-017-2863-8](https://doi.org/10.1007/s11665-017-2863-8); ISI-Web of Science/Science Citation Index Expanded - [WOS:000411202500024](https://www.scopus.com/search/form.do?dbId=111522&url=https://www.scopus.com/urn:sid:000411202500024);  
Factor de impact 2017: 1,340
- Ris23. K. Earar, S. Gradinaru, G. Pariza, F. Miculescu, A. Antoniac, V.D. Cojocaru, A. Mohan, G. Pintilie, D.O. Grigorescu. *Effect of the Sterilization Procedures of Different Surgical Meshes for Abdominal Surgery*, Revista de Chimie, 68 (8) 2017, 1868-1873, ISSN 0034-7752; ISI-Web of Science/Science Citation Index Expanded - [WOS:000410388000040](https://www.scopus.com/search/form.do?dbId=111522&url=https://www.scopus.com/urn:sid:000410388000040);  
Factor de impact 2017: 1,412
- Ris24. A. Nocivin, I. Cinca, D. Raducanu, **V.D. Cojocaru**, I.A. Popovici. *Mechanical properties of a Gum-type Ti-Nb-Zr-Fe-O alloy*, International Journal of Minerals Metallurgy and Materials, 24 (8) 2017, 909-917, ISSN 1674-4799, [DOI:10.1007/s12613-017-1477-3](https://doi.org/10.1007/s12613-017-1477-3); ISI-Web of Science/Science Citation Index Expanded - [WOS:000406501600008](https://www.scopus.com/search/form.do?dbId=111522&url=https://www.scopus.com/urn:sid:000406501600008);  
Factor de impact 2017: 1,261
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Factor de impact 2017: 1,704

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Factor de impact 2017: 2,467
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Factor de impact 2017: 2,145
- Ris28. D. Raducanu, **V.D. Cojocaru**, A. Nocivin, D.M. Gordin, I. Cinca. *Effects of cold-rolling deformation on texture evolution and mechanical properties of Ti-29Nb-9Ta-10Zr alloy*, *Materials Science and Engineering A*, 689 (689) 2017, 25-33, ISSN 0921-5093, [DOI:10.1016/j.msea.2017.02.039](https://doi.org/10.1016/j.msea.2017.02.039); ISI-Web of Science/Science Citation Index Expanded - [WOS:000397698600004](https://www.scopus.com/search/form.do?WOS:000397698600004);  
Factor de impact 2017: 3,414
- Ris29. C.M. Cotrut, A.C. Parau, A.I. Gherghilescu, I. Titorencu, I. Pana, **V.D. Cojocaru**, V. Pruna, L. Constantin, I. Dan, D.M. Vranceanu, A. Vladescu. *Mechanical, in vitro corrosion resistance and biological compatibility of cast and annealed Ti25Nb10Zr alloy*, *Metals*, 7 (3) 2017, 86.1-86.23, ISSN 2075-4701, [DOI:10.3390/met7030086](https://doi.org/10.3390/met7030086);  
ISI-Web of Science/Science Citation Index Expanded - [WOS:000397261600018](https://www.scopus.com/search/form.do?WOS:000397261600018);  
Factor de impact 2017: 1,704
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Factor de impact 2016: 0,778
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- Vi15. C. Dumitrescu, **V.D. Cojocaru**, D. Raducanu, I. Cinca. *Cold roll-milling and mechanical properties of a Ti-25Ta-25Nb biocompatible alloy*, Advances in Engineering and Management - ADEM 2010, 51-52, ISBN 978-606-510-899-8, 19-21 May 2010, Drobeta Turnu Severin, Romania;
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- Vi17. D. Raducanu, A. Cimpean, **V.D. Cojocaru**, I. Cinca, M. Codescu, A. Bara, D. Patroi, M. Popescu Negreanu. *Biocompatible thin films at nanoscale*, International Conference on Material Science and Engineering - BRAMAT 2007, 22-24 February 2007, Brasov, Romania, Cd-ROM; ISSN 1223-9631;
- Vi18. D. Raducanu, **V.D. Cojocaru**, I. Cinca. *Nanostructured materials types for medical devices*, International Conference Biomaterials & Medical Devices - BiomMedD'2006, 9-12 September 2006, Iasi, Romania, ISBN 978-973-718-566-2;
- Vi19. D. Raducanu, **V.D. Cojocaru**, I. Cinca. *The use of titanium alloys for spinal implants*, International Conference Biomaterials & Medical Devices - BiomMedD'2006, 9-12 September 2006, Iasi, Romania, ISBN 978-973-718-566-2;
- Vi20. **V.D. Cojocaru**, R.S. Cojocaru. *Ball-milling synthesis of nanostructured Fe<sub>22</sub>Co<sub>42</sub>Sm<sub>22</sub>Nb<sub>7</sub>B<sub>4</sub>Cu<sub>1</sub>Ag<sub>1</sub> alloy*, International Conference on Material Science and Engineering - BRAMAT 2005, 24-26 February 2005, Brasov, Romania, Cd-ROM; ISBN 937-635-454-7;
- Vi21. L. Angelescu, **V.D. Cojocaru**. *The Influence of Deformation Parameters on Structural Modifications Induced by Superplastic Flow of A 2014 Alloy*, International Congress on Advanced Materials and Processes "Materials Week 2001", 1-4 October 2001, Munich, Germany, Cd-ROM; ISBN 3-88355-302-6;
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- Vi24. I. Cinca, **V.D. Cojocaru**, Hu Xiaohua. *Research regard a new phase in the ternary system Co-Ti-Si*, International Conference on Material Science and Engineering - BRAMAT '99, Vol. I, 169-172, 3-5 February 1999, Brasov, Romania;
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#### Vn - Volumele unor manifestări științifice naționale.

- Vn1. **V.D. Cojocaru**, D. Raducanu, I. Cinca, S. Ivanescu, I. Dan, A. Nocivin. *A New Implant -Type for Spine Surgery*, Conference Excellence Research - A way to INNOVATION, Vol. I, 17-1/6, 27-29 Iulie 2008, Brasov, ISSN 1844-7090;
- Vn2. I. Cinca, D. Raducanu, A. Campean, **V.D. Cojocaru**, S. Ivanescu, A. Buzaianu, M. Negreanu. *Features of Osteoblaste Cell Response to Biocompatible Coated Titanium Alloys*, Conference Excellence Research - A way to INNOVATION, Vol. I, 40-1/6, 27-29 Iulie 2008, Brasov, ISSN 1844-7090;

- Vn3. S. Ivanescu, I. Dan, G. Zamfirescu, **V.D. Cojocaru**, I. Cincea, O.A. Cadar, E. Vasilescu, P. Drob, A. Nocivin. *Dental Alloy for Restorative Works of Metal - Ceramic Type*, Conference Excellence Research - A way to INNOVATION, Vol. II, 154-1/6, 27-29 Iulie 2008, Brasov, ISSN 1844-7090;
- Vn4. D. Raducanu, **V.D. Cojocaru**, I. Cincea. *Nanostructured Materials Obtained by SPD (Severe Plastic Deformation) Procedures*, Conference Excellence Research – A way to ERA, Vol. I, 40-1/6, 24-26 Octombrie 2007, Brasov, ISSN 1843-5904;
- Vn5. D. Raducanu, **V.D. Cojocaru**, I. Cincea. *Aliaje de titan folosite la realizarea unor tipuri de implantate*, Conferinta: Cercetarea de Excelenta - premiza favorabila pentru dezvoltarea spatiului romanesc de cercetare, Vol. I, 17-1/6, 22-24 Octombrie 2006, Brasov, ISBN 978-973-718-554-9;
- Vn6. D. Raducanu, T. Savu, **V.D. Cojocaru**, I. Cincea, I. Negulescu. *Aplicatie de instrumentatie virtuala pentru procesul de deformare plastica prin tragere*”, Conferinta Nationala de Instrumentatie Virtuala – CNIV-2006, Editia a-III-a, 41-45, 29 Mai 2006, Bucuresti, Cd-ROM;
- Vn7. T. Savu, D. Raducanu, I. Cincea, **V.D. Cojocaru**. *Laborator telematic integrat de instrumentatie virtuala pentru stiinta materialelor*, Conferinta Nationala de Instrumentatie Virtuala – CNIV-2005, Editia a-II-a, 130-134, 27 Iunie 2005, Bucuresti, Cd-ROM;
- Vn8. **V.D. Cojocaru**, R. Nicula, F. Turquier, M. Stir, M. Knapp, C. Baehtz, E. Burkel. *Pressure-assisted sintering and BCC to FCC phase transition of nanostructured HITPERM alloys*, Conference on Advanced Materials and Technologies - ROMAT 2004, Vol. I, 92-96, 20-21 Octombrie 2004, Bucuresti, Romania, ISBN 973-718-081-X;
- Vn9. **V.D. Cojocaru**, L. Angelescu, I. Cincea, E.M. Caprarescu, “*A constitutive equations model for elastic and pseudo-elastic deformation components*”, Conferinta Nationala - TPSRM 2000, Vol. I, 467-473, 26-27 Octombrie 2000, Bucuresti, Romania;

## V. BREVETE DE INVENȚIE / INOVAȚII (B,A)

### B - Brevete de invenție.

- B1. A. Raducanu, D. Raducanu, I. Cincea, **V.D. Cojocaru**,. *COLUMN-LIKE METAL PRODUCT WITH OBLONG STAMPED PERFORATIONS, has stamped metal sheets made with numerical control*, Nr. Brevet RO132241-A2, Publicat 29 Nov 2017; Main IPC B44C-005/00; **Indexare**: Derwent Innovation Index/ISI Web of Knowledge; Derwent Primary Accession Number: [2017-807449](#);
- B2. D. Raducanu, **V.D. Cojocaru**, I. Cincea. *Process for thermal mechanical treatment of the alloy, containing titanium, tantalum and niobium*, Nr. Brevet RO128615-A2, Publicat 30 Jul 2013; Main IPC B21B-001/36; **Indexare**: Derwent Innovation Index/ISI Web of Knowledge; Derwent Primary Accession Number: [2013-M23708 \[60\]](#);
- B3. D. Raducanu, **V.D. Cojocaru**, I. Cincea, I. Dan, S. Ivanescu. *Titanium containing noble metal alloy used for making dental prostheses by metal-ceramic technology, contains gold, silver, palladium and titanium*, Nr. Brevet RO125271-A2, RO125271-B1, Publicat 30 Mar 2010; Main IPC A61C-013/08; **Indexare**: Derwent Innovation Index/ISI Web of Knowledge; Derwent Primary Accession Number: [2010-K24575 \[53\]](#);
- B4. D. Raducanu, **V.D. Cojocaru**, I. Cincea, I. Dan, S. Ivanescu. *Process for thermo-mechanically processing Ti-6Al-7Nb alloy for making spinal implants*, Nr. Brevet RO125313-A2, RO125313-B1, Publicat 30 Mar 2010; Main IPC C21D-008/00; **Indexare**: Derwent Innovation Index/ISI Web of Knowledge; Derwent Primary Accession Number: [2010-K24235 \[53\]](#);
- B5. D. Raducanu, L. Angelescu, **V.D. Cojocaru**, M.C. Bunescu, M.C. Valeanu, M. Trupina, W. Kappel, S. Alexandru, I. Ivan. *Vacuum non magnetic biocompatible layers deposition on magnetic alloy consists of cathodic spraying in a container for vapor phase deposition of titanium nitride*, Nr. Brevet RO119897-B1, Publicat 30 Mai 2005; Main IPC C23C-014/35; **Indexare**: Derwent Innovation Index/ISI Web of Knowledge; Derwent Primary Accession Number: [2005-568498 \[32\]](#);



**A** - Inovații și alte creații.

## **VI. CONTRACTE ȘI RAPOARTE ȘTIINȚIFICE (P,F)**

**P** – Proiecte de cercetare-dezvoltare-inovare obtinute prin competitie, pe bază de contract/grant, in tara/strainatate (**Pn** - nationale, **Pi** - internationale).

**Pi** - Proiecte de cercetare-dezvoltare-inovare obtinute prin competitie, pe baza de contract/grant la care am fost responsabil al partenerului – Internationale.

- Pi1. *“TiAl alloys processed to improve operating capabilities in automotive and aerospace applications”*, PN II - MNT Era-NET, Contract: MNT-7-019/2010, 2010 - 2011; **Responsabil de proiect – partener UPB-CEMS**;
- Pi2. *“Advanced nanostructured metallic biomaterials for implantable medical devices”*, PN II - MNT Era-NET, Contract: MNT-7-017/2009, 2009 - 2011; **Responsabil de proiect – partener UPB-CEMS**;

**Pic** - Proiecte de cercetare-dezvoltare-inovare obtinute prin competitie, pe baza de contract/grant la care am fost membru in colectivul de lucru – Internationale.

- Pic1. *“Additive Manufacturing of Magnesiumbased Biodegradable Implants with Controlled Corrosion Rate and Infection”*, PN III – MANUNET III, Contract: 207/2020, 2020 - 2022; Membru in colectivul de lucru;
- Pic2. *“Orthopaedic Implants with Advanced Mechanical Properties and High Osseointegrative Interfaces”*, PN III – MANUNET III, Contract: 143/2020, 2020 - 2022; Membru in colectivul de lucru;
- Pic3. *“Advanced biodegradable materials based on MgB2 resistant to microbial colonization”*, PN III – M-ERA.NET II, Contract: 74/2017, 2017 - 2020; Membru in colectivul de lucru;
- Pic4. *“Functionalized superelastic alloys for load-bearing implants”*, PN II - MNT Era-NET, Contract: MNT-7-075/2013, 2013 - 2014; Membru in colectivul de lucru;
- Pic5. *“Functionalized superelastic alloys for load-bearing implants”*, PN II - MNT Era-NET, Contract: MNT-7-075/2013, 2013 - 2014; Membru in colectivul de lucru;
- Pic6. *“Multifunctional nanostructured titanium implant surfaces and biomechanical considerations of animal models used in tissue engineering of bone”*, PN II - MNT Era-NET, Contract: MNT-7-010/2008, 2008 - 2009; Membru in colectivul de lucru;
- Pic7. *“Synthesis of nanostructured materials under extrem conditions”*, FP5, HPMD-CT-2001-00089, 2003 - 2005; Membru in colectivul de lucru;

**Pn** - Proiecte de cercetare-dezvoltare-inovare obtinute prin competitie la care am fost director proiect/ responsabil stiintific al partenerului – Nationale.

- Pn1. *“Fenomene/mecanisme ce apar în timpul procesării termomecanice a aliajelor de tip  $\beta$ -Ti și influența acestora asupra texturării cristalografice - TextMech”*, PN-III, Nr. PCE213/25.02.2021, UPB-CEMS, 2021 - 2023; **Director de proiect**;
- Pn2. *“Implanturi ortopedice obtinute din aliaje multifunctionale tip GUM - ImplantGUM”*, CNMP PN-II, Nr. 213/01.07.2014, UPB-CEMS, 2014 - 2016; **Director de proiect**;
- Pn3. *“Biomateriale metalice avansate, nanostructurate, pentru implante ortopedice - BioTiTaNano”*, CNMP PN-II, Nr. 72-188/01.10.2008, UPB-CEMS, 2008 - 2011; **Director de proiect**;
- Pn4. *“Interactiibio / non-bio implicate in design-ul tesuturilor tari - InTesTa”*, CNMP PN-II, Nr. 41-059/14.09.2007, UPB-CEMS, 2007 - 2009; **Responsabil de proiect – partener UPB-CEMS**;

- Pn5. *“Rețea integrată de cercetare pentru constituirea unei platforme tehnologice de biomateriale avansate, compatibilă EuMaT - ADVABIOMAT”*, BIOTECH CEEX06 Nr. 54/20.07.2006, UPB-CEMS, 2006 - 2008; **Responsabil de proiect – partener UPB-CEMS**;
- Pn6. *“Materiale nanostructurate biocompatibile pentru dispozitive medicale - NANOBIOIMED”*, AMCSIT CEEX05 Nr. 40/3.10.2005, UPB-CEMS, 2005 - 2008; **Responsabil de proiect – partener UPB-CEMS**;

**Pnc** - Proiecte de cercetare-dezvoltare-inovare obținute prin competiție la care am fost membru în colectivul de lucru – Naționale.

- Pnc1. *“Structuri spațiale proiectate pentru structuri complexe, ușoare, procesate prin Curve Crease Folding”*, UEFISCDI PN-III, 468PED/23.10.2020, UPB-CEMS, 2020 - 2022;
- Pnc2. *“Model demonstrativ pentru o tehnologie avansată de procesare a compozitelor ușoare hibride pe bază de aluminiu armat cu nanotuburi de carbon cu proprietăți îmbunătățite pentru aplicații aerospațiale”*, UEFISCDI PN-III, 492PED/23.10.2020, UPB-CEMS, 2020 - 2022;
- Pnc3. *“Model demonstrativ de tehnologie de sinteză și procesare termomecanică pentru un aliaj Ti-Nb-Ta-Zr cu utilizare în implantologia osoasă”*, UEFISCDI PN-III, 526PED/23.10.2020, UPB-CEMS, 2020 - 2022;
- Pnc4. *“Îmbunătățirea proprietăților de suprafață pentru un biomaterial de tip GUM prin Self-Nano-Crystallization”*, UEFISCDI PN-III, 112PED/03.01.2017, UPB-CEMS, 2017 - 2018;
- Pnc5. *“Optimizarea tehnologiei de procesare termomecanică prin forjare a unor oțeluri inoxidabile tip super-duplex”*, UEFISCDI PN-III, 104BG/01.10.2016, UPB-CEMS, 2016 - 2018;
- Pnc6. *“Noi soluții de design inteligente (adresate optimizării utilizării resurselor) pentru structuri complexe - SmartMat”*, CNMP PN-II, 316/01.07.2014, UPB-CEMS, 2014 - 2016;
- Pnc7. *“Cercetarea substituției osoase cu materiale biocompozite fabricate prin tehnici specifice metalurgiei pulberilor - BONY”*, CNMP PN-II, 244/01.07.2014, UPB-CEMS, 2014 - 2016;
- Pnc8. *“Noua generație de implanturi ortopedice bazate pe noi bioaliaje de Ti cu învelișuri biomimetice hibride - OrthoBioMim”*, CNMP PN-II, 239/01.07.2014, UPB-CEMS, 2014 - 2016;
- Pnc9. *“Strategii terapeutice pentru îmbunătățirea răspunsului de vindecare a osului prin utilizarea de implanturi bioresorbabile, pe baza de magneziu, cu acoperiri bioactive - BioMagCoat”*, CNMP PN-II, 195/01.07.2014, UPB-CEMS, 2014 - 2016;
- Pnc10. *“Benzi supraconductoare pe baza de MgB<sub>2</sub>”*, CNMP PN-II, 214/01.07.2014, UPB-CEMS, 2014 - 2016;
- Pnc11. *“Sisteme complexe cu structura deformabilă destinate protecției balistice a vehiculelor blindate implicate în conflicte asimetrice”*, CNMP PN-II, 305/01.07.2014, UPB-CEMS, 2014 - 2016;
- Pnc12. *“Produse prietenoase mediului pe baza de acoperiri compozite polimerice conductoare pe suporturi nanostructurate cu efect antifouling și aplicații în reducerea poluării și a coroziunii - ProdCompoCor”*, CNMP PN-II, Nr. 32-106/01.10.2008, UPB-CEMS, 2008 - 2011;
- Pnc13. *“Micro/nano materiale functionale inteligente - PM-SMART”*, CNMP PN-II, Nr. 71-116/14.09.2007, UPB-CEMS, 2007 - 2010;
- Pnc14. *“Noi biomateriale avansate, nanostructurate cu baza titan și elemente de aliere netoxice - NanoBioTiAll”*, CNMP PN-II, Nr. 71-021/14.09.2007, UPB-CEMS, 2007 - 2010;
- Pnc15. *“Integrated laboratory with applications in materials science, axed on micromechanical testing - MICROMAT”*, IMPACT Nr. 429/2007, UPB-CEMS, 2007;

- Pnc16. *“Sistem integrat de cercetari avansate pentru biomateriale alternative cu aplicatii in stomatologie - BIODENTAL”*, AMCSIT CEEX06 Nr. 154/20.07.2006, UPB-CEMS, 2006 - 2008;
- Pnc17. *“Cercetari fundamentale si aplicative privind obtinerea produselor tubulare din oteluri de calitate superioara in vederea reducerii costurilor si ecologizarii productiei”*, AMCSIT CEEX06 Nr. XC22/20.07.2006, UPB-CEMS, 2006 - 2008;
- Pnc18. *“Dispozitive medicale implantabile pentru chirurgia coloanei - IMEDIS”*, AMCSIT CEEX05 Nr. 17/3.10.2005, UPB-CEMS, 2005 - 2008;
- Pnc19. *“Structuri 2D si 3D din aliaje ternare biocompatibile cu memoria formei - BIOSMETA”*, AMCSIT CEEX05 Nr. 25/3.10.2005, UPB-CEMS, 2005 - 2008;
- Pnc20. *“Laborator integrat cu caracter telematic de instrumentatie virtuala pentru stiinta materialelor”*, INFOSOC Nr. 160/01.10.2004, UPB-CEMS, 2004 - 2006;
- Pnc21. *“Modernizarea tehnologiei de fabricatie a tevilor din oteluri aliate si nealiate prin punerea in opera a unui sistem performant de perforare cu racire interioara a poansonului”*, RELANSIN Nr. 2063/01.10.2004, UPB-CEMS, 2004 - 2006;
- Pnc22. *“Realizarea tehnologiei de prelucrare a unor aliaje biocompatibile pe baza de metale nobile”*, RELANSIN Nr. 2025/01.10.2004, UPB-CEMS, 2004 - 2006;
- Pnc23. *“Valorificarea deseurilor din aliaj Zircalloy 4 in energetica nucleara”*, RELANSIN Nr. 1253/18.01.2001, CEMS – UPB, 2001 - 2003;
- Pnc24. *“Materiale magnetice avansate”*, RELANSIN Nr. 766/13.09.2000, CEMS - UPB, 2000, 2001, 2002;
- Pnc25. *“Realizarea aliajelor Ti-Ni cvasistoechiometrice si a aliajelor din sistemul Ti-Ni-X”*, CEMS - UPB, ORIZONT 2000, Tema A59, 545/2000, Act Aditonal 1/2002;
- Pnc26. *“Realizarea aliajelor Ti-Ni cvasistoechiometrice si a aliajelor din sistemul Ti-Ni-X”*, CEMS - UPB, ORIZONT 2000, Tema A59, 545/2000, Act Aditonal 1/2001;
- Pnc27. *“Cercetari privind tehnologia deformarii plastice atipice a aliajelor industriale”*, CEMS - UPB, Tema A6, 286/2000;
- Pnc28. *“Cercetari privind tehnologia deformarii plastice atipice a aliajelor industriale”*, CEMS - UPB, Tema B5, 467/1999;
- Pnc29. *“Studii si cercetsri privind imbunatatirea calitatii laminatelor din otel de rulmenti”*, CEMS - UPB, Tema A2, 721/1999;
- Pnc30. *“Stabilirea tehnologiilor de elaborare, turnare si laminare a otelului de rulmenti”*, CEMS - UPB, Tema A7, 612/1998;

## VII. COMUNICĂRI ȘTIINȚIFICE NEPUBLICATE (E)

E – Lucrări prezentate la diferite seminarii/expoziții, conferințe, etc.

- E1. **V.D. Cojocaru**, R. Nicula, F. Turquier, M. Stir, C. Lathe, E. Burkel, *“Pressure induced phase transition in nanostructured Fe-Nd-Nb alloys”*, Jahresbericht/Hamburger Synchrotronstrahlungslabor HASYLAB am Deutschen Elektronen-Synchrotron DESY, 322-324, 2004 Annual report, DESY/HASYLAB;
- E2. **V.D. Cojocaru**, R. Nicula, F. Turquier, M. Stir, C. Lathe, E. Burkel, *“Phase transition under pressure in Fe-Co-Sm-Nb-B nanostructured alloys”*, Jahresbericht/Hamburger Synchrotronstrahlungslabor HASYLAB am Deutschen Elektronen-Synchrotron DESY, 315-316, 2004 Annual report, DESY/HASYLAB;

- E3. **V.D. Cojocaru**, R. Nicula, F. Turquier, M. Stir, C. Lathe, E. Burkel, “*Compression behaviour of NANOPERM alloys at 600°C*”, Jahresbericht/Hamburger Synchrotronstrahlungslabor HASYLAB am Deutschen Elektronen-Synchrotron DESY, 224-225, 2004 Annual report, DESY/HASYLAB;
- E4. **V.D. Cojocaru**, R. Nicula, F. Turquier, M. Stir, C. Lathe, E. Burkel, “*Compression behaviour of HITPERM alloys at 500°C*”, Jahresbericht/Hamburger Synchrotronstrahlungslabor HASYLAB am Deutschen Elektronen-Synchrotron DESY, 114-115, 2004 Annual report, DESY/HASYLAB;
- E5. F. Turquier, **V.D. Cojocaru**, R. Nicula, M. Stir, C. Lathe, E. Burkel, “*Pressure-temperature phase diagram of Al-Cu-Fe quasicrystal-forming alloy*”, Jahresbericht/Hamburger Synchrotronstrahlungslabor HASYLAB am Deutschen Elektronen-Synchrotron DESY, 305-306, 2004 Annual report, DESY/HASYLAB;
- E6. F. Turquier, **V.D. Cojocaru**, M. Stir, R. Nicula, C. Bähz, M. Knapp, C. Lathe, E. Burkel, “*In-situ diffraction analysis of the pressure-temperature stability of nanocrystalline Ti-Zr-Ni-Cu alloys*”, Jahresbericht/Hamburger Synchrotronstrahlungslabor HASYLAB am Deutschen Elektronen-Synchrotron DESY, 255-256, 2004 Annual report, DESY/HASYLAB;
- E7. F. Turquier, **V.D. Cojocaru**, M. Stir, R. Nicula, C. Bähz, M. Knapp, C. Lathe, E. Burkel, “*Phase transitions upon heating in nanocrystalline Cu-Ti-Zr alloys*”, Jahresbericht/Hamburger Synchrotronstrahlungslabor HASYLAB am Deutschen Elektronen-Synchrotron DESY, 147-148, 2004 Annual report, DESY/HASYLAB;
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