

LISTA DE LUCRARI

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

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 / cursuri (manuale) pentru uzul studentilor, publicate în edituri recunoscute.

- Ca1. D. Raducanu, A. Nocivin, **V.D. Cojocaru**, I. Cinca. *Notiuni de biomecanica pentru ingineria materialelor*, Ed. PRINTECH, 2009, ISBN 978-606-521-262-6 (pag. 136);

Cb - Cărți de specialitate publicate în edituri recunoscute (autor, coautor, editor).

- Cb1. F. Stefanescu, M. Chisamera, **V.D. Cojocaru**, S. Stan, O. Trante. *Controlul de calitate in metalurgia extractiva si procesarea materialelor metalice*, Editura Academiei Oamenilor de Stiinta din Romania, Bucuresti, 2011, ISBN 978-606-8371-32-0 (pag. 84);
- Cb2. 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*, Editura Academiei Oamenilor de Stiinta din Romania, Bucuresti, 2011, ISBN 978-606-8371-56-6 (pag. 84);
- Cb3. A. Nocivin, **V.D. Cojocaru**, I. Cinca, D. Raducanu. *Nanomateriale si nanotehnologii*, Ed. PRINTECH, 2010, ISBN 978-606-521-503-0 (pag. 156);
- Cb4. 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, Ed. AGIR, 2010, ISBN 978-973-720-313-7, ISBN 973-720-064-0 (pag. 383);
- Cb5. 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, Ed. AGIR, 2009, ISBN 978-973-720-261-1, ISBN 978-973-720-064-0 (pag. 24);
- Cb6. D. Raducanu, I. Cinca, A. Nocivin, **V.D. Cojocaru**, et al. *Materiale nanostructurate biocompatibile pentru aplicatii medicale*, Vol. I, Ed. PRINTECH, 2008, ISBN 978-606-521-002-8 (pag. 163);
- Cb7. D. Raducanu, I. Cinca, A. Nocivin, **V.D. Cojocaru**, et al. *Materiale nanostructurate biocompatibile pentru aplicatii medicale. Contributii la dezvoltarea domeniului*, Vol. II, Ed. PRINTECH, 2008, ISBN 978-606-521-007-3 (pag. 203);
- Cb8. **V.D. Cojocaru**. *Plasticitatea atipica a mediilor de tip continuu*, Ed. PRINTECH, 2007, ISBN 978-973-718-765-9 (pag. 148);
- Cb9. D. Raducanu, **V.D. Cojocaru**, I. Cinca, A. Nocovin, et al. *Retea integrata de cercetare pentru constituirea unei platforme tehnologice de biomateriale avansate compatibila EuMaT*, Ed. PRINTECH, 2007, ISBN 978-973-718-768-0 (pag. 85);
- Cb10. D. Raducanu, **V.D. Cojocaru**, I. Cinca. *Elemente de design folosite in ingineria materialelor*, Ed. Cartea Universitara, 2007, ISBN 978-973-731-503-8 (pag. 142);

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

11. 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).

- Ris 1 R.E. Irimescu, D. Raducanu, A. Nocivin, E.M. Cojocaru, N. Zarnescu-Ivan, **V.D. Cojocaru**. *Optimizing Suitable Mechanical Properties for a Biocompatible Beta-Titanium Alloy by Combining Plastic Deformation with Solution Treatment*, MATERIALS, 17 (23) 2024, 5828, ISSN 1996-1944, DOI: 10.3390/ma17235828, ISI-Web of Science/Science Citation Index Expanded - WOS: 001376375800001; Factor de impact 2023: 3,1
- Ris 2 **V.D. Cojocaru**, N. Serban, E.M. Cojocaru, N. Zarnescu-Ivan. *High-Temperature Deformation Behaviour of UNS S32750 Super Duplex Stainless Steel (SDSS) Alloy*, MATERIALS, 17 (21) 2024, 5151, ISSN 1996-1944, DOI: 10.3390/ma17215151, ISI-Web of Science/Science Citation Index Expanded - WOS: 001351763300001; Factor de impact 2023: 3,1
- Ris 3 **V.D. Cojocaru**, A. Dan, N. Serban, E.M. Cojocaru, N. Zarnescu-Ivan, M.B. Galbinas. *Effect of Cold-Rolling Deformation on the Microstructural and Mechanical Properties of a Biocompatible Ti-Nb-Zr-Ta-Sn-Fe Alloy*, MATERIALS, 17 (10) 2024, 2312, ISSN 1996-1944, DOI: 10.3390/ma17102312, ISI-Web of Science/Science Citation Index Expanded - WOS: 001231473800001; Factor de impact 2023: 3,1
- Ris 4 D. Raducanu, **V.D. Cojocaru**, A. Nocivin, S.I. Drob, R.E. Hendea, D. Stanciu, S. Ivanescu, V.A. Raducanu, N. Serban, E.M. Cojocaru, R.S. Campian. *The Characterization of a Biodegradable Mg Alloy after Powder Bed Fusion with Laser Beam/Metal Processing for Custom Shaped Implants*, MATERIALS, 17 (7) 2024, 1682, ISSN 1996-1944, DOI: 10.3390/ma17071682, ISI-Web of Science/Science Citation Index Expanded - WOS: 001200791200001; Factor de impact 2023: 3,1
- Ris 5 M.H.I. Alluaibi, I.V. Balkan, N. Serban, I. Cinca, M.L. Angelescu, E.M. Cojocaru, S.S. Alturaihi, **V.D. Cojocaru**. *The Effect of Solution Treatment Duration on the Microstructural and Mechanical Properties of a Cold-Deformed-by-Rolling Ti-Nb-Zr-Ta-Sn-Fe Alloy*, MATERIALS, 17 (5) 2024, 1145, ISSN 1996-1944, DOI: 10.3390/ma17051145, ISI-Web of Science/Science Citation Index Expanded - WOS: 001182720000001; Factor de impact 2023: 3,1
- Ris 6 **V.D. Cojocaru**, N. Serban, E.M. Cojocaru, N. Zarnescu-Ivan, M.B. Galbinas. *The Effect of Solution Treatment Duration on the Microstructural and Mechanical Properties of a Cold-Deformed-by-Rolling Ti-Nb-Zr-Ta-Sn-Fe Alloy*, MATERIALS, 17 (4) 2024, 864, ISSN 1996-1944, DOI: 10.3390/ma17040864, ISI-Web of Science/Science Citation Index Expanded - WOS: 001174838200001; Factor de impact 2023: 3,1
- Ris 7 A.E. Bololoi, C.A. Manea, I.V. Antoniac, R.V. Bololoi, **V.D. Cojocaru**, D. Talpeanu, D. Patroi, L.E. Geambazu. *The influence of spark plasma sintering parameters on the physical properties of CoCrMoNbTi Bio-HEA*, UNIVERSITY POLITEHNICA OF BUCHAREST SCIENTIFIC BULLETIN SERIES B-CHEMISTRY AND MATERIALS SCIENCE, 86 (3) 2024, 227-236, ISSN 1454-2331, ISI-Web of Science/Science Citation Index Expanded - WOS: 001301114000018; Factor de impact 2023: 0,3

- Ris 8 L.E. Geambazu, D. Talpeanu, R.V. Bololoi, C.A. Manea, A.E. Bololoi, F. Miculescu, D. Patroi, **V.D. Cojocaru**. *Microstructural Characterization of Al_{0.5}CrFeNiTi High Entropy Alloy Produced by Powder Metallurgy Route*, MATERIALS, 16 (21) 2023, 7038, ISSN 1996-1944, DOI: 10.3390/ma16217038, ISI-Web of Science/Science Citation Index Expanded - WOS: 001103322100001; Factor de impact 2022: 3,4
Punctaj = (50*3,400)/8 = 21,25
- Ris 9 A.E. Bololoi, L.E. Geambazu, I.V. Antoniac, R.V. Bololoi, C.A. Manea, **V.D. Cojocaru**, D. Patroi. *Solid-State Processing of CoCrMoNbTi High-Entropy Alloy for Biomedical Applications*, MATERIALS, 16 (19) 2023, 6520, ISSN 1996-1944, DOI: 10.3390/ma16196520, ISI-Web of Science/Science Citation Index Expanded - WOS: 001089169100001; Factor de impact 2022: 3,4
- Ris 10 R.E. Hendea, D. Raducanu, A. Claver, J.A. Garcia, **V.D. Cojocaru**, A. Nocivin, D. Stanciu, N. Serban, S. Ivanescu, C. Trisca-Rusu, R.S. Campian. *Biodegradable Magnesium Alloys for Personalised Temporary Implants*, JOURNAL OF FUNCTIONAL BIOMATERIALS, 14 (8) 2023, 400, ISSN 2079-4983, DOI: 10.3390/jfb14080400, ISI-Web of Science/Science Citation Index Expanded - WOS: 001056367800001; Factor de impact 2022: 4,8
- Ris 11 D. Raducanu, A. Nocivin, **V.D. Cojocaru**, N. Serban, N. Zarnescu-Ivan, R.E. Irimescu, B.M. Galbinasu. *Microstructural Considerations of a Multi-Pass Rolled Ti-Nb-Ta-Zr Alloy*, MATERIALS, 16 (8) 2023, 3208, ISSN 1996-1944, DOI: 10.3390/ma16083208, ISI-Web of Science/Science Citation Index Expanded - WOS: 000977352300001; Factor de impact 2022: 3,4
- Ris 12 D. Raducanu, **V.D. Cojocaru**, A.V. Raducanu, A. Nocivin. *Experimental Approach of a Curved-Crease Folding Process with Multiple Folding Lines Applied on a Composite Material*, JOURNAL OF MATERIALS ENGINEERING AND PERFORMANCE, 32 (12) 2023, 10214-10228, ISSN 1059-9495, DOI: 10.1007/s11665-023-07872-y, ISI-Web of Science/Science Citation Index Expanded - WOS: 000930311800001; Factor de impact 2022: 2,3
- Ris 13 D. Raducanu, **V.D. Cojocaru**, A. Nocivin, R.E. Hendea, S. Ivanescu, D. Stanciu, C. Trisca-Rusu, N. Serban, S.I. Drob, R.S. Campian. *Microstructure Evolution during Mechanical Alloying of a Biodegradable Magnesium Alloy*, CRYSTALS, 12 (11) 2022, 1641, ISSN 2073-4352, DOI:10.3390/cryst12111641, ISI-Web of Science/Science Citation Index Expanded - WOS:000894545900001; Factor de impact 2022: 2,7
- Ris 14 A. Dan, E.M. Cojocaru, D. Raducanu, A. Nocivin, I. Cinca, **V.D. Cojocaru**. *{332} and {112} Twin Variant Activation during Cold-Rolling of a Ti-Nb-Zr-Ta-Sn-Fe Alloy*, MATERIALS, 15 (19) 2022, 6932, ISSN 1996-1944, DOI:10.3390/ma15196932, ISI-Web of Science/Science Citation Index Expanded - WOS:000867958100001; Factor de impact 2022: 3,4
- Ris 15 A. Dan, E.M. Cojocaru, D. Raducanu, I. Cinca, **V.D. Cojocaru**, B.M. Galbinasu. *Microstructure and mechanical properties evolution during thermomechanical processing of a Ti-Nb-Zr-Ta-Sn-Fe alloy*, JOURNAL OF MATERIALS RESEARCH AND TECHNOLOGY-JMR&T, 19 (19) 2022, 2877-2887, DOI:10.1016/j.jmrt.2022.06.065, ISI-Web of Science/Science Citation Index Expanded - WOS:000823336400001; Factor de impact 2022: 6,4
- Ris 16 A. Dan, M.L. Angelescu, N. Serban, E.M. Cojocaru, N. Zarnescu-Ivan, **V.D. Cojocaru**, B.M. Galbinasu. *Evolution of Microstructural and Mechanical Properties during Cold-Rolling Deformation of a Biocompatible Ti-Nb-Zr-Ta Alloy*, MATERIALS, 15 (10) 2022, 3580, ISSN 1996-1944, DOI:10.3390/ma15103580, ISI-Web of Science/Science Citation Index Expanded - WOS:000803664300001; Factor de impact 2021: 3,4
- Ris 17 R.E. Hendea, D. Raducanu, A. Nocivin, S. Ivanescu, D. Stanciu, C. Trisca-Rusu, R.S. Campian, S.I. Drob, **V.D. Cojocaru**, B.M. Galbinasu. *Laser Powder Bed Fusion Applied to a New Biodegradable Mg-Zn-Zr-Ca Alloy*, MATERIALS, 15 (7) 2022, 2561, ISSN 1996-1944, DOI:10.3390/ma15072561, ISI-Web of Science/Science Citation Index Expanded - WOS:000781988200001; Factor de impact 2022: 3,4

- Ris 18 D. Raducanu, **V.D. Cojocaru**, A. Nocivin, R. Hendea, S. Ivanescu, D. Stanciu, C. Trisca-Rusu, S.I. Drob, E.M. Cojocaru. *Mechanical Alloying Process Applied for Obtaining a New Biodegradable Mg-xZn-Zr-Ca Alloy*, METALS, 12 (1) 2022, 132, ISSN 2075-4701, DOI:10.3390/met12010132, ISI-Web of Science/Science Citation Index Expanded - WOS:000747277100001;
Factor de impact 2022: 2,9
- Ris 19 D. Raducanu, **V.D. Cojocaru**, V.A. Raducanu, E.M. Cojocaru, A. Nocivin, R.E. Irimescu, B.M. Galbinas. *Metallic surface architectures realized through plastically deformed micro-volumes / Metallische Oberflächenarchitekturen durch plastisch verformte Mikrovolumina*, MATERIALWISSENSCHAFT UND WERKSTOFFTECHNIK, 53 (7) 2022, 835-847, ISSN 0933-5137, DOI:10.1002/mawe.202100336; ISI-Web of Science/Science Citation Index Expanded - WOS:000821944100009;
Factor de impact 2022: 1,1
- Ris 20 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; ISI-Web of Science/Science Citation Index Expanded - WOS:000676365200001;
Factor de impact 2021: 3,748
- Ris 21 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; ISI-Web of Science/Science Citation Index Expanded - WOS:000671097100001;
Factor de impact 2021: 3,748
- Ris 22 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; ISI-Web of Science/Science Citation Index Expanded - WOS:000677018100001;
Factor de impact 2021: 3,352
- Ris 23 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; ISI-Web of Science/Science Citation Index Expanded - WOS:000652682400005;
Factor de impact 2021: 12,822
- Ris 24 **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; ISI-Web of Science/Science Citation Index Expanded - WOS:000593341200001;
Factor de impact 2020: 2,351
- Ris 25 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 β -transus, Ti-6246 Alloy*, Metals, 10 (9) 2020, 1114, ISSN 2075-4701, DOI:10.3390/met10091114; ISI-Web of Science/Science Citation Index Expanded - WOS:000580086400001;
Factor de impact 2020: 2,351
- Ris 26 D. Raducanu, **V.D. Cojocaru**, A. Nocivin, I. Cinca, N. Serban, E.M. Cojocaru. *β -Phase Stability of Two Biomedical β -Titanium Alloys During Severe Plastic Deformation*, JOM-US, 72 (8) 2020, 2937-2948, ISSN 1047-4838, DOI:10.1007/s11837-020-04235-z; ISI-Web of Science/Science Citation Index Expanded - WOS:000537349600003;
Factor de impact 2020: 2,471
- Ris 27 E.M. Cojocaru, D. Raducanu, N. Vintila, S.S. Alturaihi, 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 - [WOS:000560698600007](https://www.scopus.com/search/form.do?dbid=000560698600007);
Factor de impact 2020: 5,039
- Ris 28 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?dbid=000540220000121);
Factor de impact 2020: 2,351
- Ris 29 E.M. Cojocaru, D. Raducanu, S.S. Alturaihi, 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 - [WOS:000560697600002](https://www.scopus.com/search/form.do?dbid=000560697600002);
Factor de impact 2020: 5,039
- Ris 30 M. Popa, E. Mihalache, V.D. Cojocaru, C. Gurau, G. Gurau, N. Cimpoesu, B. Pricop, R.I. Comaneci, M. Vollmer, P. Krooß, T. Niendorf, L.G. Bujoreanu.. *Effects of Thermomechanical Processing on the Microstructure and Mechanical Properties of Fe-Based Alloys*, Journal of Materials Engineering and Performance, 29 (4) 2020, 2274-2282, ISSN 1059-9495, [DOI:10.1007/s11665-020-04609-z](https://doi.org/10.1007/s11665-020-04609-z); ISI-Web of Science/Science Citation Index Expanded - [WOS:000518081400001](https://www.scopus.com/search/form.do?dbid=000518081400001);
Factor de impact 2020: 1,819
- Ris 31 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?dbid=000530137000057);
Factor de impact 2020: 2,351
- Ris 32 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?dbid=000491296400040);
Factor de impact 2019: 2,029
- Ris 33 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?dbid=000471318000010);
Factor de impact 2019: 0,546
- Ris 34 D. Raducanu, **V.D. Cojocaru**, N. Serban, C. Trisca-Rusu, M.G. Nacula, 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?dbid=000454651700027);
Factor de impact 2019: 0,744
- Ris 35 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=000475748000002);
Factor de impact 2019: 5,289
- Ris 36 D. Raducanu, **V.D. Cojocaru**, A. Nocivin, I. Cinca, N. Serban, E.M. Cojocaru. *Contributions to Mechanical Characteristics Improvement of Some Biomedical TiZr 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=000454651700027);
Factor de impact 2019: 2,029

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IV. ARTICOLE / STUDII IN EXTENSO PUBLICATE (V)

Vis- Volumele unor manifestări științifice internaționale recunoscute, organizate în țară și străinătate, indexate ISI Thomson Reuters sau indexate in alte Baze de Date Internationale - BDI specifice domeniului, care fac un proces de selectie a publicatiilor pe baza unor criterii de performanta.

- Vis 1. **V.D. Cojocaru**, D. Raducanu, D.M. Gordin, I. Cinca, I. Thibon, A. Caprarescu. *Recrystallization temperature influence upon texture evolution of a SPD processed Ti-Nb-Ta-Zr-O alloy*, 6th International Conference on Nanomaterials by Severe Plastic Deformation - NanoSPD 2014, IOP Conference Series: Materials Science and Engineering, 63, 012151, [DOI:10.1088/1757-899X/63/1/012151](https://doi.org/10.1088/1757-899X/63/1/012151); ISSN 1757-8981, 30.06-04 July 2014, Metz, France; Recenzii/Indexari: SCOPUS - DOC ID: [84906351216](https://www.scopus.com/docid/84906351216);
- Vis 2. A. Vulcan, D. Raducanu, **V.D. Cojocaru**, I. Cinca, C. Dumitrescu. *X-ray investigations during severe plastic deformation of a β -Ti-25Ta-25Nb alloy*, E-Health and Bioengineering Conference - EHB 2011, 1-4, 24-26 November 2011, Iasi, Romania; ISI-Web of Science/Science Citation Index Expanded - [WOS:000304806300051](https://www.wos.org/wos/000304806300051); Recenzii/Indexari: SCOPUS - DOC ID: [84857804839](https://www.scopus.com/docid/84857804839); IEEE - DOC ID: [6150359](https://ieeexplore.ieee.org/document/6150359);
- Vis 3. **V.D. Cojocaru**, D. Raducanu, N.D. Scarisoreanu, I. Cinca. *Characterization of Ti-O-N films deposited on Ti-Ta-Nb substrate by plasma laser deposition*, 34th International Semiconductor Conference - CAS 2011, 265-268, [DOI:10.1109/SMICND.2011.6095787](https://doi.org/10.1109/SMICND.2011.6095787); IEEE catalog number: CFP11CAS-PRT, ISBN 978-1-61284-171-7, ISSN 1545-827X, 17-19 October 2011, Sinaia, Romania; ISI-Web of Science/Science Citation Index Expanded - [WOS:000320322000060](https://www.wos.org/wos/000320322000060); Recenzii/Indexari: SCOPUS - DOC ID: [84255177274](https://www.scopus.com/docid/84255177274); IEEE - DOC ID: [6095787](https://ieeexplore.ieee.org/document/6095787);
- Vis 4. **V.D. Cojocaru**, D. Raducanu, T. Gloriant, I. Cinca. *Texture analysis for a nanocrystalline Ti-Ta-Nb alloy*, 34th International Semiconductor Conference - CAS 2011, 295-298, [DOI:10.1109/SMICND.2011.6095796](https://doi.org/10.1109/SMICND.2011.6095796); IEEE catalog number: CFP11CAS-PRT, ISBN 978-1-61284-171-7, ISSN 1545-827X, 17-19 October 2011, Sinaia, Romania; ISI-Web of Science/Science Citation Index Expanded - [WOS:000320322000067](https://www.wos.org/wos/000320322000067); Recenzii/Indexari: SCOPUS - DOC ID: [84255198105](https://www.scopus.com/docid/84255198105); IEEE - DOC ID: [6095796](https://ieeexplore.ieee.org/document/6095796);
- Vis 5. A. Vulcan, **V.D. Cojocaru**, D. Raducanu, I. Cinca, C. Dumitrescu. *Mechanical behaviour of a thermo-mechanical processed Ti-25Ta-5Zr biocompatible alloy*, 3rd International Conference on Advanced Materials and Sysyems - ICAMS 2010, 227-232, ISSN 2068-0783, 16-18 September 2010, Bucharest, Romania; ISI-Web of Science/Science Citation Index Expanded - [WOS:000291667100038](https://www.wos.org/wos/000291667100038); Recenzii/Indexari: SCOPUS - DOC ID: [79954551059](https://www.scopus.com/docid/79954551059);
- Vis 6. C. Dumitrescu, **V.D. Cojocaru**, D. Raducanu, I. Cinca, A. Vulcan. *Mechanical behaviour comparison between two β -type Ti alloys*, 3rd International Conference on Advanced Materials and Sysyems - ICAMS 2010, 187-

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- Vi 1. R.M. Angelescu, D. Raducanu, M.L. Angelescu, **V.D. Cojocaru**, I. Cinca, A. Caprarescu, M. Butu. *Structural characteristics of a Ti-Zr-Ta-Nb alloy, processed by Accumulative Roll Bonding (ARB)*, International Conference on Innovative Technologies – IN-TECH 2013, 17-20, ISBN 978-953-6326-88-4, 10-12 September 2014, Leiria, Portugal;
- Vi 2. C.M. Tabirca, D. Raducanu, **V.D. Cojocaru**, I. Cinca, T. Gloriant, D.M. Gordin, I. Thibone, A. Caprarescu, C.I. Nae. *Recrystallization influences upon structural changes in a 90% cold-rolled Ti-Nb-Ta-Zr alloy*, International Conference on Innovative Technologies – IN-TECH 2013, 17-20, ISBN 978-953-6326-88-4, 10-13 September 2013, Budapest, Hungary;
- Vi 3. M.V. Popa, E. Vasilescu, P. Drob, D. Raducanu, C. Vasilescu, **V.D. Cojocaru**, S. I. Drob. *Corrosion resistance and structural and mechanical properties of a titanium base alloy by thermo-mechanical processing*, 3rd Regional Symposium on Electrochemistry: South – East Europe, Book of Abstracts, Paper no. CPA-P-08, pag. 91, 13-17 May 2012, Bucharest, Romania;
- Vi 4. E. Vasilescu, P. Drob, C. Vasilescu, S. I. Drob, D. Raducanu, **V.D. Cojocaru**, I. Cinca. *Characterisation of corrosion stability of a new nanostructured alloy*, 2nd International Advances in Applied Physics & Materials Science Congress, Book of Abstracts APMAS 2012, Paper no. 179, pag. 129, 26-29 April 2012, Antalya, Turkey;
- Vi 5. C. Dumitrescu, D. Raducanu, **V.D. Cojocaru**, D. Gordin, T. Gloriant. *Texture analysis in a Ti-25Ta-25Nb alloy*, International Conference on Innovative Technologies – IN-TECH 2011, 62-64, ISBN 978-80-904502-6-4, 01-03 September 2011, Bratislava, Slovakia;
- Vi 6. **V.D. Cojocaru**, D. Raducanu, I. Cinca, I. Dan, M. Butu, C. Rusu-Trisca. *Ti-Ta-Nb ultra-thin – ultra-strength strips processed by SPD*, International Conference on Innovative Technologies – IN-TECH 2011, 89-92, ISBN 978-80-904502-6-4, 01-03 September 2011, Bratislava, Slovakia;
- Vi 7. **V.D. Cojocaru**, D. Raducanu, I. Cinca, N. Scarisoreanu. *Mechanical properties evaluation for a Ti-Ta-Zr biocompatible alloy*, International Conference on Innovative Technologies – IN-TECH 2011, 85-88, ISBN 978-80-904502-6-4, 01-03 September 2011, Bratislava, Slovakia;
- Vi 8. A. Vulcan, D. Raducanu, **V.D. Cojocaru**, D. Gordin, I. Thibon. *Behavior of Ti-25Ta-25Nb alloy during the severe plastic deformation (SPD)*, International Conference on Innovative Technologies – IN-TECH 2011, 283 - 286, ISBN 978-80-904502-6-4, 01-03 September 2011, Bratislava, Slovakia;
- Vi 9. E. Bertrand, D.M. Gordin, P. Castany, T. Gloriant, D. Ioan, **V.D. Cojocaru**, D. Raducanu. *Deformation mechanisms in the Ti-25Ta-24Nb biomedical titanium alloy*, The 12th World Conference on Titanium – TITANIUM 2011, 19-24 June 2011, Beijing, China;
- Vi 10. E. Bertrand, T. Gloriant, D.M. Gordin, E. Vasilescu, P. Drob, C. Vasilescu, S.I. Drob, **V.D. Cojocaru**, D. Raducanu. *Elaboration, caractérisation mécanique et corrosion d'un nouvel alliage biomédical Ti25Ta25Nb*, Conférence pluridisciplinaire sur les matériaux "MATERIAUX 2010", 18-22 Octobre 2010, Nantes, France;
- Vi 11. E. Usurelu, M. Butu, P. Moldovan, A. Hadar, **V.D. Cojocaru**. *Influence of TiB₂ nano and microparticules obtained in-situ on the mechanical properties of composite materials*, International Conference Biomaterials,

- Vi 12. **V.D. Cojocaru**, D. Raducanu, I. Cinca, I. Dan, A. Vulcan, V. Dogaru. *Thermomechanical processing of a Ti-Ta-Nb alloy*, International Conference Biomaterials, Tissue Engineering & Medical devices – BiomMedD'2010, 215, ISSN 2069-0193, 23-25 September 2010, Sinaia, Romania;
- Vi 13. A. Vulcan, **V.D. Cojocaru**, D. Raducanu, I. Cinca. *Initial mechanical characterization of a Ti-25Ta-5Zr biocompatible alloy*, Advances in Engineering and Management - ADEM 2010, 85-86, ISBN 978-606-510-899-8, 19-21 May 2010, Drobeta Turnu Severin, Romania;
- Vi 14. V. Dogaru, **V.D. Cojocaru**, D. Raducanu, I. Cinca. *Strain rate influence upon mechanical properties of an as-cast Ti-25Ta-5Zr biocompatible alloy*, Advances in Engineering and Management - ADEM 2010, 49-50, ISBN 978-606-510-899-8, 19-21 May 2010, Drobeta Turnu Severin, Romania;
- Vi 15. 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;
- Vi 16. M.V. Popa, E. Vasilescu, P. Drob, C. Vasilescu, D. Raducanu, **V.D. Cojocaru**. *Corosion resistance of advanced processing titanium bioalloys in physiological environment*, 17th International Corrosion Congress, 06-10 October, Las Vegas, USA, 2008, Ed. ICC, paper 2544;
- Vi 17. 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;
- Vi 18. 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;
- Vi 19. 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;
- Vi 20. **V.D. Cojocaru**, R.S. Cojocaru. *Ball-milling synthesis of nanostructured Fe₂₂Co₄₂Sm₂₂Nb₇B₄Cu₁Ag₁ alloy*, International Conference on Material Science and Engineering - BRAMAT 2005, 24-26 February 2005, Brasov, Romania, Cd-ROM; ISBN 937-635-454-7;
- Vi 21. 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;
- Vi 22. **V.D. Cojocaru**, I. Cinca. *Aspects regard the pseudo-elastic deformation for a Ti-Ni alloy*, International Conference on Material Science and Engineering - BRAMAT '99, Vol. III, 164-169, 3-5 February 1999, Brasov, Romania;
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- Vi 24. 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;
- Vi 25. I. Cinca, **V.D. Cojocaru**, Hu Xiaohua. *Research regard a new intermetallic compound J(Co₄Ti₇Si₂)*, International Conference on Material Science and Engineering - BRAMAT '99, Vol. I, 164-168, 3-5 February 1999, Brasov, Romania;

Vn - Volumele unor manifestări științifice naționale.

- Vn 1. **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;
- Vn 2. 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;
- Vn 3. S. Ivanescu, I. Dan, G. Zamfirescu, **V.D. Cojocaru**, I. Cinca, 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;
- Vn 4. D. Raducanu, **V.D. Cojocaru**, I. Cinca. *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;
- Vn 5. D. Raducanu, **V.D. Cojocaru**, I. Cinca. *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;
- Vn 6. D. Raducanu, T. Savu, **V.D. Cojocaru**, I. Cinca, 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;
- Vn 7. T. Savu, D. Raducanu, I. Cinca, **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;
- Vn 8. **V.D. Cojocaru**, R. Nicula, F. Turquier, M. Stir, M. Knapp, C. Baehetz, 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;
- Vn 9. **V.D. Cojocaru**, L. Angelescu, I. Cinca, 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.

- B 1. A. Raducanu, D. Raducanu, I. Cinca, **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](#)
- B 2. D. Raducanu, **V.D. Cojocaru**, I. Cinca. *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 \[60\]](#)
- B 3. D. Raducanu, **V.D. Cojocaru**, I. Cinca, 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 \[53\]](#)

- B 4. D. Raducanu, **V.D. Cojocaru**, I. Cinca, 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 \[53\]](#)
- B 4. D. Raducanu, L. Angelescu, **V.D. Cojocaru**, M.C. Bunesu, 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 \[32\]](#)

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.

- Pi 1. *"TiAl alloys processed to improve operating capabilities in automotive and aerospace applications"*, CNMP PN II - MNT Era-NET, Contract: MNT-7-019/2010, 2010 - 2011; **Responsabil de proiect – partener UPB-CEMS**;
- Pi 2. *"Advanced nanostructured metallic biomaterials for implantable medical devices"*, CNMP 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.

- Pic 1. *"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 UPB-CEMS;
- Pic 2. *"Orthopaedic Implants with Advanced Mechanical Properties and High Osseointegrative Interfaces"*, PN III – MANUNET III, Contract: 143/2020, 2020 - 2022; Membru in colectivul de lucru UPB-CEMS;
- Pic 3. *"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 UPB-CEMS;
- Pic 4. *"Functionalized superelastic alloys for load-bearing implants"*, PN III – MANUNET III, Contract: 28/2017, 2017 - 2019; Membru in colectivul de lucru UPB-CEMS;
- Pic 5. *"Functionalized superelastic alloys for load-bearing implants"*, CNMP PN II - MNT Era-NET, Contract: MNT-7-075/2013, 2013 - 2014; Membru in colectivul de lucru;
- Pic 6. *"Multifunctional nanostructured titanium implant surfaces and biomechanical considerations of animal models used in tissue engineering of bone"*, CNMP PN II - MNT Era-NET, Contract: MNT-7-010/2008, 2008 - 2009; Membru in colectivul de lucru;
- Pic 7. *"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.

- Pn 1. *"Model demonstrativ de tehnologie de procesare termomecanică a aliajul inoxidabil super-duplex UNS S32750 / F53 / 1.4410"*, UEFISCDI PN-III, 593PED/01.07.2022, UPB-CEMS, 2022 - 2024; **Director de proiect**;

- Pn 2. *"Fenomene/mecanisme ce apar în timpul procesării termomecanice a aliajelor de tip β -Ti și influența acestora asupra texturării cristalografice - TextMech"*, PN-III, Nr. PCE213/25.02.2021, UPB, 2021 - 2023; **Director de proiect**;
- Pn 3. *"Implanturi ortopedice obtinute din aliaje multifunctionale tip GUM - ImplantGUM"*, CNMP PN-II, Nr. 213/01.07.2014, UPB-CEMS, 2014 - 2016; **Director de proiect**;
- Pn 4. *"Biomateriale metalice avansate, nanostructurate, pentru implante ortopedice - BioTiTaNano"*, CNMP PN-II, Nr. 72-188/01.10.2008, UPB-CEMS, 2008 - 2011; **Director de proiect**;
- Pn 5. *"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**;
- Pn 6. *"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**;
- Pn 7. *"Materiale nanostructurate biocompatibile pentru dispozitive medicale - NANOBIOMED"*, AMCSIT CEEX05 Nr. 40/3.10.2005, UPB-CEMS, 2005 - 2008; **Responsabil de proiect – partener UPB-CEMS**;

Pnc - Proiecte de cercetare-dezvoltare-inovare obtinute prin competitie la care am fost membru in colectivul de lucru – Nationale.

- Pnc 1. *"Transfer de tehnologie pentru optimizarea tratamentului mecanic de suprafață al unor repere utilizate în industria aeronautică"*, UEFISCDI PN-III, 94PTE/30.06.2020, UPB-CEMS, 2022 - 2024;
- Pnc 2. *"Structuri spațiale proiectate pentru structuri complexe, ușoare, procesate prin Curve Crease Folding"*, UEFISCDI PN-III, 468PED/23.10.2020, UPB-CEMS, 2020 - 2022;
- Pnc 3. *"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;
- Pnc 4. *"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;
- Pnc 5. *"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;
- Pnc 6. *"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;
- Pnc 7. *"Noi soluții de design inteligente (adresate optimizării utilizării resurselor) pentru structuri complexe - SmartMat"*, CNMP PN-II, 316/01.07.2014, UPB-CEMS, 2014 - 2016;
- Pnc 8. *"Cercetarea substituției osoase cu materiale biocompozite fabricate prin tehnici specifice metalurgiei pulberilor - BONY"*, CNMP PN-II, 244/01.07.2014, UPB-CEMS, 2014 - 2016;
- Pnc 9. *"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;
- Pnc 10. *"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;
- Pnc 11. *"Benzi supraconductoare pe baza de MgB₂"*, CNMP PN-II, 214/01.07.2014, UPB-CEMS, 2014 - 2016;

- Pnc 12. *"Sisteme complexe cu structura deformabila destinate protectiei balistice a vehiculelor blindate implicate in conflicte asimetrice"*, CNMP PN-II, 305/01.07.2014, UPB-CEMS, 2014 - 2016;
- Pnc 13. *"Produse prietenoase mediului pe baza de acoperiri compozite polimerice conductoare pe suporturi nanostructurate cu efect antifouling si aplicatii in reducerea poluarii si a coroziunii - ProdCompoCor"*, CNMP PN-II, Nr. 32-106/01.10.2008, UPB-CEMS, 2008 - 2011;
- Pnc 14. *"Micro/nano materiale functionale inteligente - PM-SMART"*, CNMP PN-II, Nr. 71-116/14.09.2007, UPB-CEMS, 2007 - 2010;
- Pnc 15. *"Noi biomateriale avansate, nanostructurate cu baza titan si elemente de aliere netoxice - NanoBioTiAll"*, CNMP PN-II, Nr. 71-021/14.09.2007, UPB-CEMS, 2007 - 2010;
- Pnc 16. *"Integrated laboratory with applications in materials science, axed on micromechanical testing - MICROMAT"*, IMPACT Nr. 429/2007, UPB-CEMS, 2007;
- Pnc 17. *"Sistem integrat de cercetari avansate pentru biomateriale alternative cu aplicatii in stomatologie - BIODENTAL"*, AMCSIT CEEX06 Nr. 154/20.07.2006, UPB-CEMS, 2006 - 2008;
- Pnc 18. *"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;
- Pnc 19. *"Dispozitive medicale implantabile pentru chirurgia coloanei - IMEDIS"*, AMCSIT CEEX05 Nr. 17/3.10.2005, UPB-CEMS, 2005 - 2008;
- Pnc 20. *"Structuri 2D si 3D din aliaje ternare biocompatibile cu memoria formei - BIOSMETA"*, AMCSIT CEEX05 Nr. 25/3.10.2005, UPB-CEMS, 2005 - 2008;
- Pnc 21. *"Laborator integrat cu caracter telematic de instrumentatie virtuala pentru stiinta materialelor"*, INFOSOC Nr. 160/01.10.2004, UPB-CEMS, 2004 - 2006;
- Pnc 22. *"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;
- Pnc 23. *"Realizarea tehnologiei de prelucrare a unor aliaje biocompatibile pe baza de metale nobile"*, RELANSIN Nr. 2025/01.10.2004, UPB-CEMS, 2004 - 2006;
- Pnc 24. *"Valorificarea deseurilor din aliaj Zircalloy 4 in energetica nucleara"*, RELANSIN Nr. 1253/18.01.2001, CEMS - UPB, 2001 - 2003;
- Pnc 25. *"Materiale magnetice avansate"*, RELANSIN Nr. 766/13.09.2000, CEMS - UPB, 2000, 2001, 2002;
- Pnc 26. *"Realizarea aliajelor Ti-Ni cvasistoehiometrice si a aliajelor din sistemul Ti-Ni-X"*, CEMS - UPB, ORIZONT 2000, Tema A59, 545/2000, Act Aditonal 1/2002;
- Pnc 27. *"Realizarea aliajelor Ti-Ni cvasistoehiometrice si a aliajelor din sistemul Ti-Ni-X"*, CEMS - UPB, ORIZONT 2000, Tema A59, 545/2000, Act Aditonal 1/2001;
- Pnc 28. *"Cercetari privind tehnologia deformarii plastice atipice a aliajelor industriale"*, CEMS - UPB, Tema A6, 286/2000;
- Pnc 29. *"Cercetari privind tehnologia deformarii plastice atipice a aliajelor industriale"*, CEMS - UPB, Tema B5, 467/1999;
- Pnc 30. *"Studii si cercetsri privind imbunatatirea calitatii laminatelor din otel de rulmenti"*, CEMS - UPB, Tema A2, 721/1999;

Pnc 31. "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;
- E8. **V.D. Cojocaru**, F. Turquier, R. Nicula, M. Stir, E. Burkel, "Pressure-assisted sintering and phase transitions in nanostructured NANOPERM and HITPERM alloys", Jahresbericht/Hamburger Synchrotronstrahlungslabor HASYLAB am Deutschen Elektronen-Synchrotron DESY, 407-408, 2003 Annual report, DESY/HASYLAB;
- E9. **V.D. Cojocaru**, F. Turquier, R. Nicula, M. Stir, E. Burkel, "Grain-size evolution during ball-milling synthesis of nanocrystalline precursors for HITPERM and NANOPERM soft magnetic alloys", Jahresbericht/Hamburger Synchrotronstrahlungslabor HASYLAB am Deutschen Elektronen-Synchrotron DESY, 299-300, 2003 Annual report, DESY/HASYLAB;
- E10. F. Turquier, **V.D. Cojocaru**, R. Nicula, M. Stir, C. Lathe, E. Burkel, "Pressure-assisted synthesis of Al-Cu-Fe quasicrystals", Jahresbericht/Hamburger Synchrotronstrahlungslabor HASYLAB am Deutschen Elektronen-Synchrotron DESY, 409-410, 2003 Annual report, DESY/HASYLAB;
- E11. F. Turquier, **V.D. Cojocaru**, M. Stir, R. Nicula, C. Bähz, M. Knapp, E. Burkel, "Synthesis of single-phase Al-Cu-Fe quasicrystals by high-energy ball-milling", Jahresbericht/Hamburger Synchrotronstrahlungslabor HASYLAB am Deutschen Elektronen-Synchrotron DESY, 483-484, 2003 Annual report, DESY/HASYLAB;

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23.06.2025

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