

LISTA DE LUCRĂRI

Conf.univ.dr.ing. Nicolae ȘERBAN

<http://www.researcherid.com/rid/C-6636-2011>

<http://www.scopus.com/authid/detail.url?authorId=24588091900>

https://www.researchgate.net/profile/Nicolae_Serban2

I. TEZA (E) DE DOCTORAT (T)

- T1. **N. Șerban**, *Studii și cercetări referitoare la extrudarea unghiulară în canale egale (ECAE) a aliajelor de aluminiu / Studies and researches regarding the equal channel angular extrusion (ECAE) of aluminium alloys*, conducător științific: Prof.univ.dr.ing. Rami ȘABAN, U.P.B., București, 2012.

II. CĂRȚI PUBLICATE (C)

Ca – Cărți / cursuri (manuale) pentru uzul studenților, publicate în edituri recunoscute.

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

- Cb1. **N. Șerban**, *Procesarea materialelor metalice prin extrudare unghiulară în canale egale. Aspecte teoretice și aplicații practice*, Editura MATRIX ROM (COD CNCIS 39), ISBN 978-606-25-0434-2, București, 2019, 195 pag.

Cc - Cărți publicate în alte edituri, cu ISBN.

III. ALTE MATERIALE PUBLICATE (I,D)

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

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

- D1. N. Ghiban, B. Ghiban, **N. Șerban**, *Extruziunea, s.cap. 3.7, în: Tratat de Știința și Ingineria Materialelor Metalice. Vol. 4. Tehnologii de Procesare Primară a Materialelor Metalice*, R. Șaban, C. Dumitrescu (coord.), I. Ripoșan (responsabil vol. 4), Editura AGIR, ISBN 978-973-720-313-7, București, 2010, pp. 1386-1428;
- D2. Gh. Chelu, N. Ghiban, R. Șaban, B. Ghiban, **N. Șerban**, *Strain Rate And Material State Influence On The Deformation Resistance Of Some Tool Steels, Chapter 19, in: DAAAM International Scientific Book 2008, vol. 7*, B. Katalinic (Ed.), Published by DAAAM International, ISSN 1726-9687, ISBN 978-3-901509-66-7, Vienna, Austria, [DOI: 10.2507/daaam.scibook.2008.19](https://doi.org/10.2507/daaam.scibook.2008.19), 2008, pp. 219-228.

IV. ARTICOLE / STUDII IN EXTENSO PUBLICATE (R,V)

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

- Ris1. M. H. I. Alluaibi, E. M. Cojocaru, A. Rusea, **N. Șerban**, 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, ISSN 2075-4701, vol. 10, iss. 9, 2020, 1114, 16 pag., [doi:10.3390/met10091114](https://doi.org/10.3390/met10091114), Indexed in ISI - Web of Science Core Collection / Science Citation Index Expanded - [WOS:000580086400001](https://www.scopus.com/documentId/urn:sid:WOS:000580086400001), SCOPUS (DOC ID: [85089671197](https://www.scopus.com/documentId/urn:sid:85089671197));
- Ris2. E. M. Cojocaru, D. Răducanu, A. N. Vintilă, S. S. Alturahi, **N. Șerban**, A. C. Berbecaru, V. D. Cojocaru*, *Influence of ageing treatment on microstructural and mechanical properties of a solution treated UNS 532750/EN 1.4410/F53 Super Duplex Stainless Steel (SDSS) alloy*, Journal of Materials Research and Technology - JMR&T, ISSN 2238-7854, vol. 9, iss. 4, 2020, pp. 8592-8605, [doi:10.1016/j.jmrt.2020.05.127](https://doi.org/10.1016/j.jmrt.2020.05.127), Indexed in ISI - Web of Science Core Collection / Science Citation Index Expanded - [WOS:000560698600007](https://www.scopus.com/documentId/urn:sid:WOS:000560698600007));
- Ris3. D. Răducanu, V. D. Cojocaru, A. Nocivin*, I. Cinca, **N. Șerban**, E. M. Cojocaru, *β -Phase Stability of Two Biomedical β -Titanium Alloys During Severe Plastic Deformation*, JOM-US (Journal of the Minerals, Metals and Materials Society), ISSN 1047-4838, vol. 72, iss. 8, 2020, pp. 2937-2948, [doi:10.1007/s11837-020-04235-z](https://doi.org/10.1007/s11837-020-04235-z), Indexed in ISI - Web of Science Core Collection / Science Citation Index Expanded - [WOS:000537349600003](https://www.scopus.com/documentId/urn:sid:WOS:000537349600003), SCOPUS (DOC ID: [85086005800](https://www.scopus.com/documentId/urn:sid:85086005800));
- Ris4. M. L. Angelescu, E. M. Cojocaru*, **N. Șerban**, V. D. Cojocaru, *Evaluation of Hot Deformation Behaviour of UNS S32750 Super Duplex Stainless Steel (SDSS) Alloy*, Metals, ISSN 2075-4701, vol. 10, iss. 5, 2020, 673, 12 pag., [doi:10.3390/met10050673](https://doi.org/10.3390/met10050673), Indexed in ISI - Web of Science Core Collection / Science Citation Index Expanded - [WOS:000540220000121](https://www.scopus.com/documentId/urn:sid:WOS:000540220000121), SCOPUS (DOC ID: [85085367863](https://www.scopus.com/documentId/urn:sid:85085367863));
- Ris5. E. M. Cojocaru, D. Răducanu, A. Nocivin*, I. Cinca, A. N. Vintilă, **N. Șerban**, 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, ISSN 2075-4701, vol. 10, iss. 3, 2020, 353, 15 pag., [doi:10.3390/met10030353](https://doi.org/10.3390/met10030353), Indexed in ISI - Web of Science Core Collection / Science Citation Index Expanded - [WOS:000530137000057](https://www.scopus.com/documentId/urn:sid:WOS:000530137000057), SCOPUS (DOC ID: [85081198521](https://www.scopus.com/documentId/urn:sid:85081198521));
- Ris6. D. Răducanu, V. D. Cojocaru, A. Nocivin*, I. Cinca, **N. Șerban**, E. M. Cojocaru, *Surface Modifications of Biomedical Gum-Metal-Type Alloy by Nano Surface-Severe Plastic Deformation*, JOM-US (Journal of the Minerals, Metals and Materials Society), ISSN 1047-4838, vol. 71, iss. 11, 2019, pp. 4114-4124, [doi:10.1007/s11837-019-03667-6](https://doi.org/10.1007/s11837-019-03667-6), Indexed in ISI - Web of Science Core Collection / Science Citation Index Expanded - [WOS:000491296400040](https://www.scopus.com/documentId/urn:sid:WOS:000491296400040), SCOPUS (DOC ID: [85069636116](https://www.scopus.com/documentId/urn:sid:85069636116));
- Ris7. **N. Șerban***, V. D. Cojocaru, M. L. Angelescu, D. Răducanu, I. Cinca, A. N. Vintilă, E. M. Cojocaru, *High temperature deformation behaviour of an industrial S32760/1.4501/F55 super duplex stainless steel (SDSS) alloy*, Metallurgia Italiana, ISSN 0026-0843, vol. 111, iss. 5, 2019, pp. 41-48, Indexed in ISI - Web of Science Core Collection / Science Citation Index Expanded - [WOS:000491966800004](https://www.scopus.com/documentId/urn:sid:WOS:000491966800004), SCOPUS (DOC ID: [85071855926](https://www.scopus.com/documentId/urn:sid:85071855926));

- Ris8. D. Răducanu, V. D. Cojocaru, ***N. Șerban****, C. Trișcă-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*, Materials Science and Engineering Technology (Materialwissenschaft und Werkstofftechnik), ISSN 0933-5137, vol. 50, iss. 5, 2019, pp. 553-564, [doi:10.1002/mawe.201800232](https://doi.org/10.1002/mawe.201800232), Indexed in ISI - Web of Science Core Collection / Science Citation Index Expanded - [WOS:000471318000010](https://www.scopus.com/documentId/urn:wos:000471318000010), SCOPUS (DOC ID: [85065481363](https://www.scopus.com/documentId/urn:wos:000471318000010)), Presented and selected from The 12th International Conference on Advanced Computational Engineering and Experimenting – ACE-X 2018, Amsterdam, The Netherlands, 1-5 July 2018;
- Ris9. B. Ghiban*, C. M. Guragata, ***N. Șerban***, A. D. Raiciu, I. V. Balkan, *Hot working behaviour of INCONEL 718 superalloy*, U.P.B. Scientific Bulletin, Series B: Chemistry and Materials Science, ISSN 1454-2331, vol. 81, iss. 4, 2019, pp. 209-216, Indexed in ISI - Web of Science Core Collection / Emerging Sources Citation Index - [WOS:000501994100019](https://www.scopus.com/documentId/urn:wos:000501994100019), INSPEC, SCOPUS (DOC ID: [85076614882](https://www.scopus.com/documentId/urn:wos:000501994100019));
- Ris10. D. Răducanu, V. D. Cojocaru, A. Nocivin*, I. Cinca, ***N. Șerban***, E. M. Cojocaru, *Contributions to Mechanical Characteristics Improvement of Some Biomedical TNTZ Alloys by Adding Fe, Si, and O: A Comparative Study*, JOM-US (Journal of the Minerals, Metals and Materials Society), ISSN 1047-4838, vol. 71, iss. 1, 2019, pp. 264-271, [doi:10.1007/s11837-018-3091-x](https://doi.org/10.1007/s11837-018-3091-x), Indexed in ISI - Web of Science Core Collection / Science Citation Index Expanded - [WOS:000454651700027](https://www.scopus.com/documentId/urn:wos:000454651700027), SCOPUS (DOC ID: [85053220405](https://www.scopus.com/documentId/urn:wos:000454651700027));
- Ris11. M. L. Angelescu, V. D. Cojocaru, ***N. Șerban****, E. M. Cojocaru, *Evaluation of Optimal Forging Temperature Range for an Industrial UNS S32750 SDSS Alloy Using SEM-EBSD Analysis*, Metals, ISSN 2075-4701, vol. 8, iss. 7, 2018, 496, 18 pag., [doi:10.3390/met8070496](https://doi.org/10.3390/met8070496), Indexed in ISI - Web of Science Core Collection / Science Citation Index Expanded - [WOS:000445096800026](https://www.scopus.com/documentId/urn:wos:000445096800026), SCOPUS (DOC ID: [85049223599](https://www.scopus.com/documentId/urn:wos:000445096800026)) ([articol premiat UEFISCDI, cod PN-III-P1-1.1-PRECISI-2018-27979, decembrie 2018](https://www.uefiscdi.ro/articol-premiat-uefiscdi-cod-pn-iii-p1-1.1-precisi-2018-27979-decembrie-2018));
- Ris12. V. D. Cojocaru, ***N. Șerban****, *Effects of Solution Treating on Microstructural and Mechanical Properties of a Heavily Deformed New Biocompatible Ti-Nb-Zr-Fe Alloy*, Metals, ISSN 2075-4701, vol. 8, iss. 5, 2018, 297, 12 pag., [doi:10.3390/met8050297](https://doi.org/10.3390/met8050297), Indexed in ISI - Web of Science Core Collection / Science Citation Index Expanded - [WOS:000435109300007](https://www.scopus.com/documentId/urn:wos:000435109300007), SCOPUS (DOC ID: [85046685752](https://www.scopus.com/documentId/urn:wos:000435109300007)) ([articol premiat UEFISCDI, cod PN-III-P1-1.1-PRECISI-2018-25113, decembrie 2018](https://www.uefiscdi.ro/articol-premiat-uefiscdi-cod-pn-iii-p1-1.1-precisi-2018-25113-decembrie-2018));
- Ris13. V. D. Cojocaru, ***N. Șerban****, M. L. Angelescu, E. M. Cojocaru, I. Cinca, D. Răducanu, A. N. Vintilă, *Effect of short duration solution treatment at temperatures below 1000 degrees C on sigma-phase precipitation in a super duplex stainless steel alloy*, Materials Science and Engineering Technology (Materialwissenschaft und Werkstofftechnik), ISSN 0933-5137, vol. 49, iss. 5, 2018, pp. 530-537, [doi:10.1002/mawe.201700280](https://doi.org/10.1002/mawe.201700280), Indexed in ISI - Web of Science Core Collection / Science Citation Index Expanded - [WOS:000433499500004](https://www.scopus.com/documentId/urn:wos:000433499500004), SCOPUS (DOC ID: [85047856422](https://www.scopus.com/documentId/urn:wos:000433499500004)), Presented and selected from The 11th International Conference on Advanced Computational Engineering and Experimenting – ACE-X 2017, Vienna, Austria, 3-6 July 2017;
- Ris14. V. D. Cojocaru, ***N. Șerban***, M. L. Angelescu*, M. C. Cotruț, E. M. Cojocaru, A. N. Vintilă, *Influence of Solution Treatment Temperature on Microstructural Properties of an Industrially Forged UNS S32750/1.4410/F53 Super Duplex Stainless Steel (SDSS) Alloy*, Metals, ISSN 2075-4701, vol. 7, iss. 6, 2017, 210, 13 pag., [doi:10.3390/met7060210](https://doi.org/10.3390/met7060210), Indexed in ISI - Web of Science Core Collection / Science Citation Index Expanded - [WOS:000404056600027](https://www.scopus.com/documentId/urn:wos:000404056600027), SCOPUS (DOC ID: [85020486222](https://www.scopus.com/documentId/urn:wos:000404056600027)) ([articol premiat UEFISCDI, cod PN-III-P1-1.1-PRECISI-2017-15527, octombrie 2017](https://www.uefiscdi.ro/articol-premiat-uefiscdi-cod-pn-iii-p1-1.1-precisi-2017-15527-octombrie-2017));

- Ris15. V. D. Cojocaru, D. Răducanu, M. L. Angelescu*, A. N. Vintilă, **N. Șerban**, I. Dan, E. M. Cojocaru, I. Cinca, *Influence of Solution Treatment Duration on Microstructural Features of an Industrial Forged UNS S32750/1.4410/F53 Super Duplex Stainless Steel (SDSS) Alloy*, JOM-US (Journal of the Minerals, Metals and Materials Society), ISSN 1047-4838, vol. 69, iss. 8, 2017, pp. 1439-1445, [doi:10.1007/s11837-017-2372-0](https://doi.org/10.1007/s11837-017-2372-0), Indexed in ISI - Web of Science Core Collection / Science Citation Index Expanded - [WOS:000406021800027](https://www.wos.com/wos/record/URI?uri=WOS:000406021800027), SCOPUS (DOC ID: [85019727309](https://www.scopus.com/docid/85019727309)) ([articol premiat UEFISCDI, cod PN-III-P1-1.1-PRECISI-2017-15521, octombrie 2017](#));
- Ris16. A. Nocivin, V. D. Cojocaru, D. Răducanu, I. Cinca*, M. L. Angelescu, I. Dan, **N. Șerban**, 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, ISSN 1059-9495, vol. 26, iss. 9, 2017, pp. 4373-4380, [DOI:10.1007/s11665-017-2863-8](https://doi.org/10.1007/s11665-017-2863-8), Indexed in ISI - Web of Science Core Collection / Science Citation Index Expanded - [WOS:000411202500024](https://www.wos.com/wos/record/URI?uri=WOS:000411202500024), SCOPUS (DOC ID: [85027504334](https://www.scopus.com/docid/85027504334));
- Ris17. F. Niculescu, D. Marcu, Șt. Burciu, M. Buzatu, I. M. Petrescu, **N. Șerban**, Gh. Iacob*, *Experimental Researches Regarding the Thermodynamic Activities in the Binary Pb-Sb Alloy System*, Journal of Phase Equilibria and Diffusion, ISSN 1547-7037, vol. 38, iss. 5, 2017, pp. 700-706, [doi:10.1007/s11669-017-0555-6](https://doi.org/10.1007/s11669-017-0555-6), Indexed in ISI - Web of Science Core Collection / Science Citation Index Expanded - [WOS:000409081100010](https://www.wos.com/wos/record/URI?uri=WOS:000409081100010), SCOPUS (DOC ID: [85019215060](https://www.scopus.com/docid/85019215060));
- Ris18. V. A. Răducanu, L. Moldovan, D. Răducanu, M. L. Angelescu*, I. Cinca, V. D. Cojocaru, A. Nocivin, **N. Șerban**, *Parametric Design and Structural Performances of a Light Metallic Structure*, U.P.B. Scientific Bulletin, Series B: Chemistry and Materials Science, ISSN 1454-2331, vol. 79, iss. 3, 2017, pp. 97-102, Indexed in ISI - Web of Science Core Collection / Emerging Sources Citation Index - [WOS:000416417800010](https://www.wos.com/wos/record/URI?uri=WOS:000416417800010), INSPEC, SCOPUS (DOC ID: [85028341969](https://www.scopus.com/docid/85028341969)), Presented and selected from The 6th International Conference on Materials Science and Technologies – RoMat 2016, Bucharest, Romania, 09-12 November 2016;
- Ris19. **N. Șerban**, M. Buțu*, V. D. Cojocaru, *Sustainable Lightweight 6063-T1 Aluminium Alloy Processed by Equal Channel Angular Pressing for Low Environmental Impact Applications*, Materiale Plastice, ISSN 0025-5289, vol. 53, iss. 4, 2016, pp. 617-622, Indexed in ISI - Web of Science Core Collection / Science Citation Index Expanded - [WOS:000395047100009](https://www.wos.com/wos/record/URI?uri=WOS:000395047100009), SCOPUS (DOC ID: [85005959300](https://www.scopus.com/docid/85005959300));
- Ris20. A. Ghiban*, B. Ghiban, **N. Șerban**, T. V. Țigănescu, *Hot Working Behaviour of a New Dental Alloy*, Materiale Plastice, ISSN 0025-5289, vol. 53, iss. 4, 2016, pp. 708-712, Indexed in ISI - Web of Science Core Collection / Science Citation Index Expanded - [WOS:000395047100029](https://www.wos.com/wos/record/URI?uri=WOS:000395047100029), SCOPUS (DOC ID: [85006074479](https://www.scopus.com/docid/85006074479));
- Ris21. **N. Șerban**, D. Răducanu, M. Buțu*, V. D. Cojocaru, *Crystallite Size and Lattice Strain Evolution in a Nanostructured 6063-T1 Aluminum Alloy Processed by Equal Channel Angular Pressing*, Materiale Plastice, ISSN 0025-5289, vol. 53, iss. 1, 2016, pp. 179-183, Indexed in ISI - Web of Science Core Collection / Science Citation Index Expanded - [WOS:000373966500041](https://www.wos.com/wos/record/URI?uri=WOS:000373966500041), SCOPUS (DOC ID: [84960949997](https://www.scopus.com/docid/84960949997));
- Ris22. **N. Șerban***, D. Răducanu, V. D. Cojocaru, *Modeling and simulation of an aluminum alloy single-pass ECAP processing cycle*, U.P.B. Scientific Bulletin, Series B: Chemistry and Materials Science, ISSN 1454-2331, vol. 78, iss. 1, 2016, pp. 201-210, Indexed in ISI - Web of Science Core Collection / Emerging Sources Citation Index - [WOS:000417051900020](https://www.wos.com/wos/record/URI?uri=WOS:000417051900020), INSPEC, SCOPUS (DOC ID: [84959568560](https://www.scopus.com/docid/84959568560));

- Ris23. **N. Șerban***, D. Răducanu, V. D. Cojocaru, M. Buțu, *Structural and mechanical properties investigations in an ultrafine-grained 6063-T1 aluminum alloy produced by severe plastic deformation*, *Materiale Plastice*, ISSN 0025-5289, vol. 52, iss. 4, 2015, pp. 546-552, Indexed in ISI - Web of Science Core Collection / Science Citation Index Expanded - [WOS:000368971900027](https://doi.org/10.1016/j.mpl.2015.07.002), SCOPUS (DOC ID: [84951273299](https://doi.org/10.1016/j.mpl.2015.07.002));
- Ris24. **N. Șerban***, D. Răducanu, V. D. Cojocaru, *X-Ray diffraction study and die geometry effect on structural and mechanical characteristics of a nanosized severely deformed 6063 aluminum alloy*, *Optoelectronics and Advanced Materials – Rapid Communications (OAM–RC)*, ISSN 1842-6573, Vol. 9, Iss. 9-10, September - October 2015, pp. 1197-1203, Indexed in ISI - Web of Science Core Collection / Science Citation Index Expanded - [WOS:000364600500026](https://doi.org/10.1016/j.oamrc.2015.09.002), SCOPUS (DOC ID: [84945284580](https://doi.org/10.1016/j.oamrc.2015.09.002));
- Ris25. R. M. Angelescu, D. Răducanu, C. Cotruț, V. D. Cojocaru, M. L. Angelescu, I. Cinca, **N. Șerban**, *In Vitro Corrosion Behaviour of some Titanium Alloys Designated to Oral Implantology*, U.P.B. Scientific Bulletin, Series B: Chemistry and Materials Science, ISSN 1454-2331, vol. 77, iss. 4, 2015, pp. 321-328, Indexed in ISI - Web of Science Core Collection / Emerging Sources Citation Index - [WOS:000417047800029](https://doi.org/10.1016/j.sbsbs.2015.04.002), INSPEC, SCOPUS (DOC ID: [84977100232](https://doi.org/10.1016/j.sbsbs.2015.04.002));
- Ris26. **N. Șerban**, N. Ghiban, V. D. Cojocaru*, *Mechanical Behavior and Microstructural Development of 6063-T1 Aluminum Alloy Processed by Equal-Channel Angular Pressing (ECAP): Die Channel Angle Influence*, *JOM-US (Journal of the Minerals, Metals and Materials Society)*, ISSN 1047-4838, vol. 65, iss. 11, 2013, pp. 1411-1418, [DOI:10.1007/s11837-013-0641-0](https://doi.org/10.1007/s11837-013-0641-0), Indexed in ISI - Web of Science Core Collection / Science Citation Index Expanded - [WOS:000327496400006](https://doi.org/10.1007/s11837-013-0641-0), SCOPUS (DOC ID: [84887236978](https://doi.org/10.1007/s11837-013-0641-0)) ([articol premiat UEFISCDI, cod PN-II-RU-PRECISI-2013-7-2320, decembrie 2013](https://doi.org/10.1007/s11837-013-0641-0));
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- Ris28. **N. Șerban**, M. Buțu*, *Die channel angle influence on the microstructure of a commercial AlMgSi alloy severely deformed by ECAP*, *Metalurgia International*, ISSN 1582-2214, vol. 16, iss. 12, 2011, pp. 15-19, Indexed in ISI - Web of Science Core Collection / Science Citation Index Expanded - [WOS:000295606900003](https://doi.org/10.1016/j.mint.2011.12.002), SCOPUS (DOC ID: [80052861250](https://doi.org/10.1016/j.mint.2011.12.002));
- Ris29. **N. Șerban**, M. Buțu*, *Microstructural evolution of a commercial AlMgSi alloy processed by ECAP with a die channel angle of 100°*, *Metalurgia International*, ISSN 1582-2214, vol. 16, iss. 12, 2011, pp. 36-40, Indexed in ISI - Web of Science Core Collection / Science Citation Index Expanded - [WOS:000295606900008](https://doi.org/10.1016/j.mint.2011.12.003), SCOPUS (DOC ID: [80052858432](https://doi.org/10.1016/j.mint.2011.12.003));
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Rio – Alte reviste de specialitate de circulație internațională.

Rns - Reviste de specialitate de circulație națională recunoscute de CNCSIS.

Rno - Alte reviste de specialitate de circulație națională.

Vis - Volumele unor manifestări științifice internaționale recunoscute, organizate în țară și străinătate, indexate ISI Thomson Reuters sau indexate în alte Baze de Date Internaționale - BDI specifice domeniului, care fac un proces de selecție a publicațiilor pe baza unor criterii de performanță.

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- Vi2. R. M. Angelescu, D. Răducanu, M. L. Angelescu, I. Cinca, V. D. Cojocaru, C. Cotruț, **N. Șerban**, *Microstructural and Corrosion Analysis of a Ti-Nb-Ta Biocompatible Dental Implant Alloy*, Proceedings of The 17th International Conference on Environmental Science and Biological Engineering – ICESBE 2015, 17 (7) Part XIV, pp. 2480-2483, London, United Kingdom, 25-26 July 2015;
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Vn - Volumele unor manifestări științifice naționale.

- Vn1. B. Ghiban, N. Ghiban, Ș. Crăciun, M. Chivu, C. R. Trișca, **N. Șerban**, P. Manicatide, I. Cârceanu, E. Crăciun, *Aluminium thin films on supports processed through powder metallurgy by fluidized bed chemical vapour deposition*, Proceedings of the Conference Excellence Research – A way to Innovation, CEEEX 2008 Conference, ISSN 1844-7090, vol. 2, 2008, pp. 135-1/135-6, Brașov, Romania;
- Vn2. Gh. Chelu, C. Neagoe, N. Ghiban, **N. Șerban**, B. Ghiban, *Stabilirea experimentală a deformabilității matritelor din oțel de lucru la cald în condițiile încălzirii în infraroșu*, Conferința Națională de Metalurgie și Știința Materialelor – ROMAT 2008, ISBN 978-606-521-077-6, pp. 208-217, București, România, 25-26 Septembrie 2008.

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

B - Brevete de invenție.

A - Inovații și alte creații.

VI. CONTRACTE ȘI RAPOARTE ȘTIINȚIFICE (P,F)

P – Proiecte de cercetare-dezvoltare-inovare obținute prin competiție, pe bază de contract/grant, în țară/străinătate (**Pn** - naționale, **Pi** - internaționale).

Pi - Proiecte de cercetare-dezvoltare-inovare obținute prin competiție, pe bază de contract/grant la care am fost responsabil al partenerului – Internaționale.

Pic - Proiecte de cercetare-dezvoltare-inovare obținute prin competiție, pe bază de contract/grant la care am fost membru în colectivul de lucru – Internaționale.

Pic1. *“Orthopaedic Implants with Advanced Mechanical Properties and High Osseointegrative Interfaces – OIAMPHOI”*, Contract Era.Net – MANUNET II, ANCS-UEFISCDI 143/2020, 2020-2022, **membru în echipa de cercetare;**

Pic2. *„Porous and nanostructured magnesium biodegradable alloy implants, with bioactive nanocoatings, controlled degradation and improved osseointegration – BioIMplantMag”*, Contract Era.Net – MANUNET II, ANCS-UEFISCDI 28/2017, 2017 – 2019, **membru în echipa de cercetare;**

Pic3. *“Development of a new generation of cobalt based alloys modified with titanium for dentistry application - DENTICO”*, Contract MANUNET ERA-Net 7-060/2012, Piedmont POR FESR 2007-2013 Asse 1 Attivi Romania Partnership in ST Priority Areas, 2012 – 2013, **membru în echipa de cercetare.**

Pn - Proiecte de cercetare-dezvoltare-inovare obținute prin competiție la care am fost director proiect/responsabil științific al partenerului – Naționale.

Pn1. *„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 (HybridAeroAl)”*, ANCS-UEFISCDI PN-III, 492PED/2020, cod PN-III-P2-2.1-PED-2019-5134, 2020-2022, **Director de proiect;**

- Pn2. *„Îmbunătățirea comportării în exploatare a profilelor metalice fabricate la S.C. Free Star Industry S.R.L. Ploiești (ProfImprov)”*, ANCS-UEFISCDI PN-III, 130CI/2017, cod PN-III-P2-2.1-CI-2017-0788, 2017-2018, **Responsabil de proiect;**
- Pn3. *„Tehnologie nouă de obținere a produselor plate ultrarezistente din aliaje ușoare pe bază de aluminiu (TehNoUltraAl)”*, UPB-GEX 52/26.09.2016, cod 324, 2016-2017, **Director de proiect.**

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

- Pnc1. *„Îmbunătățirea proprietăților de suprafață pentru un biomaterial de tip GUM prin Self-Nano-Crystallization (SNC) - SurfGum”*, ANCS-UEFISCDI PN-III, 112PED/2017, 2017-2018, **membru în echipa de cercetare;**
- Pnc2. *„Optimizarea tehnologiei de procesare termomecanică prin forjare a unor oțeluri inoxidabile tip super-duplex – SuperDuplexForging”*, ANCS-UEFISCDI PN-III, 104BG/2016, 2016-2018, **membru în echipa de cercetare;**
- Pnc3. *„Materiale cu proprietăți de ultra-rezistență”*, UPB-GEX 53/26.09.2016, cod 224, 2016-2017, **membru în echipa de cercetare;**
- Pnc4. *“Implanturi ortopedice obținute din aliaje multifuncționale tip GUM - ImplantGUM”*, ANCS-UEFISCDI PN-II, 213/2014, 2014-2016, **membru în echipa de cercetare;**
- Pnc5. *“Noi soluții de design inteligente (adresate optimizării utilizării resurselor) pentru structuri complexe - SmartMat”*, ANCS-UEFISCDI PN-II, 316/2014, 2014-2016, **membru în echipa de cercetare;**
- Pnc6. *“Noua generație de implanturi ortopedice bazate pe noi bioaliaje de Ti cu învelișuri biomimetice hibride - OrthoBioMim”*, ANCS-UEFISCDI PN-II, 239/2014, 2014-2016, **membru în echipa de cercetare;**
- Pnc7. *„Cercetarea substituției osoase cu materiale biocompozite fabricate prin tehnici specifice metalurgiei pulberilor – BONY”*, ANCS-UEFISCDI PN-II, 244/2014, 2014-2016, **membru în echipa de cercetare;**
- Pnc8. *“Biomateriale metalice avansate, nanostructurate, pentru implanturi ortopedice - BioTiTaNano”*, ANCS-UEFISCDI PN-II, 72-188/2008, 2008 – 2011, **membru în echipa de cercetare;**
- Pnc9. *“Noi biomateriale avansate, nanostructurate cu bază titan și elemente de aliere netoxice – NanoBioTiAl”*, ANCS-UEFISCDI PN-II, 71-021/2007, 2007 – 2010, **membru în echipa de cercetare;**
- Pnc10. *„Tehnologie nouă de reciclare eficientă a pulberilor de oxizi de fier din LBR – Arcelor Mittal Galați prin recuperare integrală a fierului metalic în condiții nepoluante – TENROF”*, Programul INOVARE, contract 119/2007 (S.C. MIGRAL S.R.L. – partener), **membru în echipa de cercetare;**
- Pnc11. *„Dezvoltarea de noi concepte privind sinteza de materiale avansate prin combustie CVD în câmp electromagnetic – SINTELMAT”*, MCT-AMCSIT CEEX06, 135/2006, 2006-2008, **membru în echipa de cercetare;**
- Pnc12. *“Sistem integrat de cercetări avansate pentru biomateriale alternative cu aplicații în stomatologie - BIODENTAL”*, MCT-AMCSIT CEEX06, 154/2006, 2006 – 2008, **membru în echipa de cercetare;**
- Pnc13. *“Dispozitive medicale implantabile pentru chirurgia coloanei - IMEDIS”*, MCT-AMCSIT CEEX05, 17/2005, 2005 – 2008, **membru în echipa de cercetare;**

- Pnc14. „Tehnologii avansate de încălzire rapidă în infraroșu a matrițelor pentru prelucrare la cald – INFRAT”, contract CEEX, nr. 217/2006, **colaborator**;
- Pnc15. „Rețea integrată de cercetare pentru constituirea unei platforme tehnologice de biomateriale avansate, compatibilă EuMaT – ADVABIOMAT”, MCT-BIOTECH CEEX06, 54/2006, 2006-2008, **colaborator**;
- Pnc16. „Materiale nanostructurate biocompatibile pentru dispozitive medicale – NANOBIOEMED”, MCT-AMCSIT CEEX05, 40/03.10.2005, 2005-2008, **colaborator**;
- Pnc17. „Laborator integrat cu caracter telematic de instrumentație virtuală pentru știința materialelor”, INFOSOC, 160/01.10.2004, 2004-2006, **colaborator**.

F – Alte lucrări de cercetare – dezvoltare (contracte cu agenți economici).

- F1. „Studiu experimental privind influența tratamentului termic de omogenizare asupra omogenității structurale și a deformabilității aliajului de titan grad 5 conform ASTM B348”, UPB-CEMS 63/09.05.2017, beneficiar S.C. Zirom S.A., Giurgiu, România, **Director de proiect**;
- F2. „Scurte considerații cu privire la influența cuprului și azotului asupra comportării la deformarea plastică la cald (forjare) a oțelurilor”, UPB-CEMS 69/09.06.2017, beneficiar S.C. Tenaris SILCOTUB S.A., Zalău, România, **Director de proiect**;
- F3. „Proiectarea și dimensionarea unui nou sector de forjă pentru laboratorul de încercări mecanice de la ArcelorMittal Hunedoara S.A.”, UPB-CEMS 155/03.11.2016, beneficiar ArcelorMittal S.A., Hunedoara, România, **Director de proiect**;
- F4. „Testarea și determinarea caracteristicilor mecanice ale produselor extrudate din aliaje de aluminiu”, UPB-CEMS 152/20.10.2016, beneficiar S.C. ALPROF S.A, Năvodari, România, **Director de proiect**;
- F5. „Servicii de evaluare a proceselor de turnare și extrudare a aliajelor neferoase, inclusiv consultanță tehnică de specialitate” pentru UACE Dumbrăvița – Maramureș, UPB-CEMS 100/09.06.2016, beneficiar SGS România S.A., București, România, **Responsabil de proiect**;
- F6. „Analiză suprafețe randalinate (F2 – 0.35 mm; F5 – 0.45 mm și F6 – 0.55 mm) comparativ cu EP2091674 și testare mecanică (tracțiune – încovoiere)”, UPB-CEMS 25/23.04.2015, beneficiar S.C. Free Star Industry S.R.L., Ploiești, România, **Director de proiect**.

VII. COMUNICĂRI ȘTIINȚIFICE NEPUBLICATE (E)

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

- E1. **N. Șerban**, D. Răducanu, V. D. Cojocaru, I. Cinca, M. L. Angelescu, E. M. Cojocaru, *Extrusion and heat treatment of a new biodegradable Mg-2.7Zn-1Ca-0.6Zr alloy: processing and characterization (microstructure, mechanical properties)*, Workshop Tematic „Tendințe Noi în Procesarea Materialelor Metalice” – EDIȚIA a II-a, București, România, 21-22 Martie 2019;
- E2. **N. Șerban**, I. Bădoi, *Scurte considerații asupra stadiului actual al industriei de piese forjate*, Workshop Tematic „Tendințe Noi în Procesarea Materialelor Metalice” – EDIȚIA a II-a, București, România, 21-22 Martie 2019;
- E3. V. D. Cojocaru, D. Răducanu, I. Cinca, **N. Șerban**, M. L. Angelescu, E. M. Cojocaru, *Properties improvement of TNTZ alloys by advanced thermo-mechanical processing*, Workshop Tematic „Tendințe Noi în Procesarea Materialelor Metalice” – EDIȚIA a II-a, București, România, 21-22 Martie 2019;

- E4. **N. Șerban**, V. D. Cojocaru, M. L. Angelescu, E. M. Cojocaru, *Severe plastic deformation – an efficient tool for microstructural and mechanical properties control in metallic materials*, Workshop Tematic „Tendințe Noi în Procesarea Materialelor Metalice” – EDIȚIA a II-a, București, România, 21-22 Martie 2019;
- E5. **N. Șerban**, V. D. Cojocaru, D. Răducanu, I. Cinca, *The benefits of SPD/ECAP as a preliminary treatment of billets in the fabrication of flat ultrastrength aluminium products*, Workshop Tematic „Tendințe Noi în Procesarea Materialelor Metalice” – EDIȚIA a II-a, București, România, 21-22 Martie 2019;
- E6. M. H. Alluaibi, **N. Șerban**, E. M. Cojocaru, I. Cinca, *Microstructural evolution during thermomechanical processing of Ti-6246 titanium alloy*, Workshop Tematic „Tendințe Noi în Procesarea Materialelor Metalice”, București, România, 10 Decembrie 2018;
- E7. **N. Șerban**, D. Răducanu, V. D. Cojocaru, I. Cinca, M. L. Angelescu, *Improving mechanical biocompatibility of a new degradable magnesium alloy via severe plastic deformation*, 18th SGEM International Scientific Multidisciplinary Conference on EARTH and Geo Sciences – SGEM VIENNA GREEN SESSIONS 2018, Vienna, Austria, 3-6 December 2018;
- E8. M. L. Angelescu*, V. D. Cojocaru, **N. Șerban**, D. Răducanu, I. Cinca, A. Vintilă, E. M. Cojocaru, *Observations on the effect of forging temperature on the microstructure of super-duplex stainless steel UNS S32760*, Journal of Material Sciences & Engineering, ISSN 2169-0022, vol. 7, 2018, p. 173, DOI:10.4172/2169-0022-C8-114, 19th World Congress on Materials Science and Engineering, Barcelona, Spain, 11-13 June 2018;
- E9. **N. Șerban**, D. Răducanu, V. D. Cojocaru, I. Cinca, M. L. Angelescu, E. M. Cojocaru, *Microstructural and mechanical behaviour comparison in a new biodegradable magnesium alloy processed by extrusion and ECAP (Equal Channel Angular Pressing)*, 7th International Conference on Materials Science and Technologies – RoMat 2018, Bucharest, Romania, 15-18 November 2018;
- E10. B. Ghiban, C. M. Guragata, **N. Șerban**, *Hot working behavior of Inconel 718 superalloy*, 7th International Conference on Materials Science and Technologies – RoMat 2018, Bucharest, Romania, 15-18 November 2018;
- E11. I. V. Balkan, **N. Șerban**, V. D. Cojocaru, *The influence of mechanical vibrations on microstructural characteristics of a subsequently forged aluminum alloy*, 7th International Conference on Materials Science and Technologies – RoMat 2018, Bucharest, Romania, 15-18 November 2018;
- E12. V. D. Cojocaru, D. Răducanu, M. L. Angelescu, **N. Șerban**, A. N. Vintilă, E. M. Cojocaru, I. Cinca, *σ -phase precipitation in UNS S32760 F55 Super Duplex Stainless Steel (SDSS) alloy during thermo-mechanical processing*, International Conference on PROCESSING & MANUFACTURING OF ADVANCED MATERIALS: Processing, Fabrication, Properties, Applications - THERMEC'2018, Paris, France, 8-13 July 2018;
- E13. D. Răducanu, V. D. Cojocaru, A. Nocivin, M. L. Angelescu, I. Dan, E. M. Cojocaru, I. Cinca, **N. Șerban**, *Microstructural and mechanical properties changes occurred in a biocompatible Ti-Nb-Zr-Fe-O GUM type alloy during thermo-mechanical processing*, International Conference on Innovative Technologies – In-Tech 2017, Ljubljana, Slovenia, 11-13 September 2017;
- E14. V. D. Cojocaru, I. Cinca, I. Dan, **N. Șerban**, E. M. Cojocaru, D. Răducanu, *Microstructural effects induced by solution treatment in a cold-rolled ($\alpha+\beta$) Ti-25Nb-5Ta (wt.%) alloy*, The 11th International Conference on Advanced Computational Engineering and Experimenting – ACE-X 2017, Vienna, Austria, 3-6 July 2017;

- E15. **N. Șerban**, V. D. Cojocaru, D. Răducanu, I. Cinca, M. L. Angelescu, E. M. Cojocaru, *Scanning Electron Microscopy (SEM) Investigations on a Severely Deformed 6063-O Aluminum Alloy*, The 2nd „Conference of the Romanian Electron Microscopy Society”, CREMS 2017, Sinaia, Romania, 16-18 May 2017;
- E16. M. L. Angelescu, D. Răducanu, A. Vintilă, **N. Șerban**, I. Cinca, *Fractographic Analysis of a Super Duplex Stainless Steel after Hot Deformation*, The 10th International Conference on Materials Science and Engineering, BRAMAT 2017, Brașov, Romania, 8-11 March 2017;
- E17. A. Ghiban, B. Ghiban, **N. Șerban**, C. M. Borțun, *Deformability Behaviour of New Cobalt Based Alloys*, The 6th International Conference on Structural Analysis and Advanced Materials, ICSAAM 2015, Book of abstracts published by INEGI – Instituto de Engenharia Mecânica e Gestão Industrial, ISBN: 978-972-8826-32-1, Porto, Portugal, 8-11 September 2015;
- E18. A. Ghiban, B. Ghiban, **N. Șerban**, C. M. Borțun, *Plasticity Determination of CoCrMoTi Alloy*, The 6th International Conference on Structural Analysis and Advanced Materials, ICSAAM 2015, Book of abstracts published by INEGI – Instituto de Engenharia Mecânica e Gestão Industrial, ISBN: 978-972-8826-32-1, Porto, Portugal, 8-11 September 2015;
- E19. **N. Șerban**, D. Răducanu, V. D. Cojocaru, *Microstructure and mechanical properties control for commercial aluminum alloys through SPD/ECAP processing*, The 17th International Conference on the Strength of Materials, ICSMA 17, Book of abstracts published by Institute of Physics of Materials, Academy of Sciences of the Czech Republic, ISBN: 978-80-87434-07-9, Brno, Czech Republic, 9-14 August 2015;
- E20. **N. Șerban**, D. Răducanu, V. D. Cojocaru, *Process parameters estimation using computer simulation for a commercial 6063-T1 aluminum alloy severely deformed by ECAP*, The 17th International Conference on the Strength of Materials, ICSMA 17, Book of abstracts published by Institute of Physics of Materials, Academy of Sciences of the Czech Republic, ISBN: 978-80-87434-07-9, Brno, Czech Republic, 9-14 August 2015;
- E21. D. Răducanu, A. Nocivin, I. Cinca, M. L. Angelescu, **N. Șerban**, V. D. Cojocaru, *Characteristics of ultrafine/nanocrystalline Ti-20Nb-5Ta alloy processed by severe plastic deformation*, The 6th International Conference on Advanced Nanomaterials – ANM 2015, Aveiro, Portugal, 20-22 July 2015;
- E22. N. Ghiban, Gh. Chelu, **N. Șerban**, A. Ghiban, *Simulation of Non-Rounded Profile Extrusion*, Materials Science and Engineering – Congress and Exhibition on Advanced Materials and Processes organised by DGM, MSE 2008, Nürnberg, Germany, 1-4 September 2008;
- E23. **N. Șerban**, N. Ghiban, Gh. Chelu, R. Șaban, *Characteristics of Extrusion Process of Non-Rounded Products*, European Conference JUNIOR EUROMAT 2008 organised by DGM, Lausanne, Switzerland, 14-18 July 2008.

VIII. ALTE LUCRĂRI

1. B. Ilić, **N. Șerban**, *Costurile și criza*, Market România, ISSN 2066-7434, vol. 1, nr. 1, 2009, pp. 64-65;
2. **N. Șerban**, *Viitorul sună chiar bine*, Market România, ISSN 2066-7434, vol. 1, nr. 1, 2009, pp. 66-67;
3. B. Ilić, **N. Șerban**, *Schimbarea - o necesitate?*, Market România, ISSN 2066-7434, vol. 1, nr. 2, 2009, 72-73;
4. **N. Șerban**, *Un nou model de organizație*, Market România, ISSN 2066-7434, vol. 1, nr. 3, 2009, p. 56;

5. **N. Șerban**, *Specificul formării structurilor de tip NC/UFG în timpul procesării ECAP a aliajelor pe bază de aluminiu*, Raport final de cercetare postdoctorală, Tutore: Prof.univ.dr.ing. Doina RĂDUCANU, UPB, București, 2015;
6. **N. Șerban**, „*Costurile*” adaptării Facultății de Știința și Ingineria Materialelor din cadrul Universității Politehnica București la cerințele specializării personalului în domeniul protecției mediului, biomaterialelor și nanomaterialelor, Lucrare de disertație, coord. șt.: Prof.univ.dr. Ștefan NEDELEA, ASE – Fac. de Management, Master Managementul Afacerilor, București, 2010;
7. **N. Șerban**, *Studii și cercetări experimentale cu privire la influența parametrilor tehnologici asupra deformabilității matrițelor din oțel de lucru la cald*, Lucrare de disertație, coord. șt.: Prof.univ.dr.ing. Gheorghe CHELU, UPB – SIM, Master Ingineria Fabricării Pieselor prin Procedee Neconvenționale, București, 2009;
8. **N. Șerban**, *Studii și cercetări privind frecarea exterioară și consecințele sale în cazul matrițării materialelor metalice*, Proiect de diplomă, coord. științific: Prof.univ.dr.ing. Gheorghe CHELU, UPB – SIM, București, 2007.

Data,
01.12.2020

Semnătura,
Conf.univ.dr.ing. Nicolae ȘERBAN