

Anexa II.9b-Lista de lucrări

Lista de lucrări în domeniul de studii universitare de licență*

Numele și prenumele: CHELARIU ROMEU

A. Teza de doctorat.

Cercetări privind sinteza și analiza structurală a materialelor metalice medicale
Universitatea Tehnică „Gheorghe Asachi” din Iași, februarie 2001
Conducător doctorat Prof. univ. dr. Ion PETREUŞ
Domeniu Stiinta si Ingineria Materialelor

B. Cărți (manuale, monografii, tratate, îndrumare etc.) publicate în străinătate.

C. Cărți (manuale, monografii, tratate, îndrumare etc.) publicate în țară, la edituri recunoscute CNCSIS.

1. **R. Chelariu**, L.-Gh. Bujoreanu, C. Roman, *Materiale metalice biocompatibile cu baza titan*, 223 pagini, Editura Politehnium, Iași, 2006, ISBN 978 973-621-153-9

2. R. Comaneci, **R. Chelariu**, L. Zaharia, *Obținerea materialelor nanostructurate prin deformare plastică severă*, 180 pagini, Ed. Performantica, Iași, 2006, ISBN 978-973-730-316-5

3. I. Carcea, C. Roman, **R. Chelariu**, *Ingineria proceselor metalurgice*, capitolele 14-16, 91 pagini, Editura Performantica, Iași, 2006, ISBN 978-973-730-326-4

4. **Chelariu R.**, *Știința Materialelor Metalice Speciale-Biomateriale Metalice*, 2015, Editura PIM, Iași, 179 pagini, ISBN 978-606-13-2548-1

5. **R. Chelariu**, *Grafică industrială în ingineria materialelor*, 165 pagini, Editura CERMI, Iași, 2007, ISBN 978-973-667-287-3

6. **R. Chelariu**, V. Manole, *Grafică industrială în ingineria materialelor*, Îndrumar pentru laborator, 243 pagini, Editura Cermi, Iași, 2008, ISBN 978-973-667-269-9

7. **R. Chelariu**, *Sisteme de operare și limbaje de programare*, Îndrumar pentru laborator, Editura CERMI, Iași, 2007, 140 pagini, ISBN 978-973-667-268-2

D. Cărți (manuale, monografii, tratate, îndrumare etc.) publicate pe plan local.

E. Cărți (manuale, monografii, tratate, îndrumare etc.) publicate pe web.

F. Lucrări științifice publicate în reviste cotate ISI sau indexate în baze de date internaționale.

Reviste cotate ISI

1. **Chelariu R.**, Trinca L.C., Munteanu C., Bolat G., Sutiman D., Mareci D., Souto, R.M., *Corrosion behavior of new quaternary ZrNbTiAl alloys in simulated physiological solution using electrochemical techniques and surface analysis methods*, ELECTROCHIMICA ACTA, 2017; 248:368-375

2. Mareci D., Suditu G.D., **Chelariu R.**, Trinca L.C., Curteanu S., *Prediction of corrosion resistance of some dental metallic materials applying artificial neural networks*, Materials and corrosion-Werkstoffe und korrosion, 2016, 67(11):1213-1219

3. Tofan N., Andrian S., Nica I., Stoleriu S., Topoliceanu C., **Chelariu R.**, Bolat M., Pancu G., *The Assessment of Erosive Potential of Some Acid Beverages on Indirect - Restorative Materials*, Revista de Chimie, 2016, 67(6):1144-1149

4. Vitalariu A., Leata R., **Chelariu R.**, Munteanu C., Cimpoesu R., Ilie M., Comaneci R., Moisei M., *Influence of the Casting Conditions on the Structure and Properties of a Co-Cr-Mo Dental Alloy*, Revista de Chimie, 2015;66(12):2147-2151

5. Mareci D., Dragoi E.N., Bolat G., **Chelariu R.**, Gordin D., Curteanu S., *Modelling the influence of pH, fluoride, and caffeine on the corrosion resistance of TiMo alloys by artificial neural networks developed with differential evolution algorithm*, Materials and corrosion-Werkstoffe und korrosion, 2015;66(9):982-994
6. Bolat G., Izquierdo J., Gloriant T., **Chelariu R.**, Mareci D., Souto R. M., *Investigation of processing effects on the corrosion resistance of Ti20Mo alloy in saline solutions*, Corrosion Science, 2015;98:170-179
7. **Chelariu R.**, Mareci D., Bolat G., Peptu C.A., Cailean D., *Electrochemical characterization of surface modification for Ti6Al7Nb implants with hydroxyapatite-zirconia nanoparticles synthesis by ultrasound irradiations*, Materials and Corrosion-Werkstoffe und Korrosion, 2015;66(6):573-578
8. **Chelariu R.**, Suditu G.D., Mareci D., Bolat G., Cimpoesu N., Leon F., Curteanu S., *Prediction of Corrosion Resistance of Some Dental Metallic Materials with an Adaptive Regression Model*, JOM, 2015;67(4):767-774
9. Mareci D., **Chelariu R.**, Cailean A., Brinza F., Bolat G., Gordin D.M., *Electrochemical characterization of Ti12Mo5Ta alloys in contact with saline medium*, Transactions of Nonferrous Metals Society of China, 2015; 25(1):345-353
10. **R. Chelariu**, D. Mareci, C. Munteanu, G. Bolat, C. Crimiu, I. Zetu, *Electrochemical behaviour of experimental Ti30Ta alloy in the presence of fluoride and albumin protein*, Digest Journal of Nanomaterials and Biostructures Vol. 9, No. 4, October - December 2014, p. 1349 – 1358
11. C. Papatoiu, **R. Chelariu**, G. Bolat, C. Munteanu, D. Mareci, *Comparative electrochemical characterization of plasma sprayed zirconia and alumina coatings on titanium substrate*, Journal of Optoelectronics and Advanced Materials Vol. 16, No. 9-10, September – October 2014, p. 1093 – 1098
12. A.C. Barbinta, D. Mareci, **R. Chelariu**, G. Bolat, C. Munteanu, K.Cho, M. Niinomi, *The estimation of corrosion behavior of new TiNbTaZr alloys for biomedical applications*, Materials and Corrosion-Werkstoffe und Korrosion, 2014, 65, No. 10, 1017-1023
13. L.A. Dragan-Raileanu, **R. Chelariu**, D. Mareci, C. Munteanu, *Electrochemical behavior of new experimental TiNbZrAl alloys for dental applications*, Materials and Corrosion-Werkstoffe und Korrosion, 2014, 65, No. 8, 828-836
14. **R. Chelariu**, G. Bolat, J. Izquierdo, D. Mareci, D.M. Gordin, T. Gloriant, R.M. Souto
Metastable beta Ti-Nb-Mo alloys with improved corrosion resistance in saline solution
Electrochimica Acta 137 (2014) 280–289
15. L Zaharia, R.Comaneci, **R.Chelariu**, D.Luca, *A new severe plastic deformation method by repetitive extrusion and upsetting*, Materials Science and Engineering A 595 (2014) 135–142
16. G. Bolat, D. Mareci, **R. Chelariu**, J. Izquierdo, S. González, R.M. Souto, *Investigation of the electrochemical behaviour of TiMo alloys insimulated physiological solutions*, Electrochimica Acta 113 (2013) 470– 480
17. D. Mareci, **R. Chelariu**, G.Bolat, A. Cailean, V. Grancea, D. Sutiman, *Electrochemical behaviour of Ti alloys containing Mo and Ta as \square -stabilizer elements for dental application*, Transactions of Nonferrous Metals Society of China 23 (2013) 3829-3836
18. D. Mareci, G. Bolat, **R. Chelariu**, D. Sutiman, C. Munteanu, *The estimation of corrosion behaviour of ZrTi binary alloys for dental applications using electrochemical techniques*, Materials Chemistry and Physics 141 (2013) 362-369
19. D. Mareci, D. Sutiman, **R. Chelariu**, F. Leon, S. Curteanu, *Evaluation of the corrosion resistance of new ZrTi alloys by experiment and simulation with an adaptive instance-based regression model*, Corrosion Science 73 (2013) 106–122
20. I. Florea, R.M. Florea, O. Baltatescu, V. Soare, **R. Chelariu**, I. Carcea, *High entropy alloys*, Journal of Optoelectronics and Advanced Materials, vol. 15, No. 7-8, July-August 2013, p. 761-767
21. **R. Chelariu**, D. Mareci, C. Munteanu, *Preliminary electrochemical testing of some Zr-Ti alloys in 0.9% NaCl solution*, Materials and Corrosion-Werkstoffe und Korrosion, 2013, 64, No. 7, 585-591

- 22.** D. Mareci, **R. Chelariu**, A. Cailean, D. Sutiman, *Electrochemical characterization of Ni47.7Ti37.8Nb14.5 shape memory alloy in artificial saliva*, Materials and Corrosion-Werkstoffe und Korrosion, 2012, 63, No. 9, 807-812
- 23.** D. Mareci, **R. Chelariu**, S. Iacoban, C. Munteanu, G. Bolat, D. Sutiman, *The Estimation of Localized Corrosion Behavior of Ni-Based Dental Alloys Using Electrochemical Techniques*, Journal of Materials Engineering and Performance (2012) 21(7), 1431–1439
- 24.** L. Zaharia, **R. Chelariu**, R. Comaneci, *Multiple direct extrusion: A new technique in grain refinement*, Materials Science and Engineering A 550 (2012) 293– 299
- 25.** R. Comaneci, L. Zaharia, **R. Chelariu**, *Damaging Prediction of Difficult-to-Work Aluminum Alloys During Equal Channel Angular Pressing*, Journal of Materials Engineering and Performance (2012) 21(3), 287–297
- 26.** D. Mareci, **R. Chelariu**, G. Bolat, A. Cailean, D. Sutiman, *Electrochemical corrosion characteristics of TiTa alloys in commercial mouthwash solution*, Journal of Optoelectronics and Advanced Materials Vol. 14, No. 1-2, January – February 2012, p. 112 – 119
- 27.** D. Mareci, **R. Chelariu**, D. Sutiman, D. M. Gordin, T. Gloriant, *Evaluating electrochemical behaviour of recrystallized titanium alloys in Ringer's solution*, Materials and Corrosion-Werkstoffe und Korrosion 2011, 62, No. 12, 1117-1123
- 28.** D. Mareci, **R. Chelariu**, I. Dan, D.M. Gordin, T. Gloriant, *Corrosion behavior of β -Ti20Mo alloy in artificial saliva*, Journal of Materials Science:Materials in Medicine (2010) 21, 2907–2913
- 29.** D. Mareci, **R. Chelariu**, D.M. Gordin, M. Romas, D. Sutiman, T. Gloriant, *Effect of Mo content on electrochemical behavior of TiMo alloys for dental applications*, Materials and Corrosion-Werkstoffe und Korrosion, 2010, 61, No.10, 829-837
- 30.** D. Mareci, **R. Chelariu**, G. Ciurescu, D. Sutiman, T. Gloriant, *Electrochemical aspects of Ti-Ta alloys in HBSS*, Materials and Corrosion-Werkstoffe und Korrosion, 2010, 61, No. 9, 768-774
- 31.** D. Mareci, **R. Chelariu**, G. Ciurescu, D. Sutiman, DM Gordin, T. Gloriant, *Corrosion behavior of some titanium dental alloys synthesized by cold crucible levitation melting*, Journal of Optoelectronics and Advanced Materials, vol. 12, no.7, July 2010, 1590-1596
- 32.** D. Mareci, **R. Chelariu**, D.M. Gordin, G. Ungureanu, T. Gloriant, *Comparative corrosion study of Ti-Ta alloys for dental applications*, Acta Biomaterialia 5 (2009) 3625–3639
- 33.** Mareci D., **Chelariu R.**, Ivănescu S., Gordin D.M., Cretescu I., Gloriant T., *Electrochemical Behavior of a New Titanium Alloy for Dental Applications*, Revista de Chimie, 2009; 60(8):787-793
- 34.** D.M. Gordin, E.Delvat, **R. Chelariu**, G. Ungureanu, M. Besse, D.Laillé, T.Gloriant, *Characterization of Ti-Ta Alloys Synthesized by Cold Crucible Levitation Melting* Advanced Engineering Materials, 2008,10, No. 8, 714-719
- 35.** D. Mareci, G. Ungureanu, N. Aelenei, **R. Chelariu**, J.C. Mirza-Rosca, *EIS diagnosis of some dental alloys in artificial saliva*, Environmental Engineering and Management Journal, July/August, vol. 6, no. 4, 2007, 313-317
- 36.** D.M. Gordin, T. Gloriant, Gh. Nemtoi, **R. Chelariu**, N. Aelenei, A. Guillou, A. Ansel, *Synthesis, structure and electrochemical behaviour of a beta Ti-12Mo-5Ta alloy as new biomaterial* Materials Letters 59 (2005) 2936 – 2941

Reviste indexate în BDI

- 37.** D. Mareci, I. Rusu, **R. Chelariu**, G. Bolat, C. Munteanu, D. Sutiman, R.M. Souto, *Application of dynamic electrochemical impedance spectroscopy to the evaluation of the corrosion resistance of a historic bronze object in artificial acid rainwater*, European Journal of Science and Theology, vol.9, no. 6, 189-199, Dec 2013

Indexată Scopus

- 38.** A.C. Barbinta, **R. Chelariu**, C.I. Crimă, B. Istrate, S. Nazarie, K.Earar, C. Munteanu, *Investigation of a new Ti-Nb-Zr-Ta alloy by electron microscopy,X-ray diffraction and nanoindentation*, Bulletin of the Transilvania University of Brasov, Series I: Engineering Sciences, Vol. 6 (55), no. 1, 2013, 77-82

Indexată Google Scholar, Indexata EBSCO

- 39.** A.C. Barbinta, **R. Chelariu**, C.I. Crimă, B. Istrate, S. Nazarie, K. Earar, C. Munteanu, *Metallographic characterization of a new biomedical titanium-based alloy for orthopedic applications*, Bulletin of the Transilvania University of Brasov, Series I: Engineering Sciences, Vol. 6 (55), no. 1, 2013, 77-82
Indexată Google Scholar, Indexata EBSCO
- 40.** D. Sutiman, I. Rusu, **R. Chelariu**, G. Lisa, V. Diaconescu, D. Mareci, *Study of patina deposition on bronze artefacts exposed to environmental corrosion in open spaces*, European Journal of Science and Theology, vol. 8, no. 4, 215-223, Dec 2012
Indexată Scopus
- 41.** D. Mareci, **R. Chelariu**, D. Sutiman, I. Rusu, *Electrochemical characteristics of electrochemically patined bronze*, European Journal of Science and Theology, vol. 7, no. 4, 121-129, Dec 2011
Indexată Scopus
- 42.** I. Carcea, D. Mareci, C. Roman, V. Soare, **R. Chelariu**, *Electrodepositing and Characterization of Zn-Ni-P Thin Film*, Metalurgia International, vol. XVI (2011), nr. 5, 33-37
Indexata Scopus
- 43.** R. Comaneci, C. Roman, **R. Chelariu**, I. Carcea, *Finite element analysis of equal channel angular pressing of Al-Mg 5083 alloy*, Annals of the University Dunarea de Jos of Galati: Fascicle IX, Metallurgy & Materials Science. 2011, Vol. 29 Issue 3, 5-9, Indexată Google Scholar, Indexată EBSCO
- 44.** D. Mareci, **R. Chelariu**, I. Rusu, N.M. Puica, D. Sutiman, *Electrochemical behavior of some religious artefacts in simulated acid rain*, European Journal of Science and Theology, vol. 6, no. 3, 57-70, Sep 2010
Indexată Scopus
- 45.** D. Nedelcu, **R. Chelariu**, L. Tabacaru, *Some considerations about the analyzing of traction break surface of reinforcement composite material with Si-C particles*, Metalurgia International, vol. XIV (2009), nr. 11(special issue), 82-90 (69-72)
Indexata Scopus
- 46.** Carcea I., **Chelariu R.**, Roman C., Alexandru A., *The processing and solidification of composite materials reinforced with "in situ" formed particles*, Metalurgia International vol. XIV (2009), no. 3, 19-22
Indexata Scopus
- 47.** D. Mareci, **R. Chelariu**, D.M. Gordin, T. Gloriant, I. Carcea, *Preliminary testing of corrosion behaviour of Ti₆Al₇Nb and Ti₃₀Ta in artificial saliva with additions of fluoride ions and lactic acid* Metalurgia International, vol. XIII (2008), nr. 12, 82-90
Indexată Scopus
- 48.** I. Carcea, C. Roman, **R. Chelariu**, D. Mihai, M. Stefan, *Experimental trial of the digital solidification simulation model*, Metalurgia International, vol. XIII (2008), nr. 7, 48-54
Indexată Scopus
- 49.** **R. Chelariu**, *The influence of some electron beam melting parameters on the chemical composition of Ti₅Al_{2,5}Fe alloy*, Metalurgia International, vol. XIII (2008), nr. 4, 23-30
Indexata Scopus
- 50.** **R. Chelariu**, *The computation of the composition of the metallic charge used for alloy elaboration*, Metalurgia International, vol. XIII (2008), nr. 3, 21-26
Indexată Scopus
- 51.** C. Roman, **R. Chelariu**, I. Carcea, *Modelling influence of the treatment process parameters applied on some aluminium bronzes*, Metalurgia International, vol. XIII (2008), nr. 3, 27-33
Indexată Scopus
- 52.** I. Carcea, C. Roman, A.V. Sandu, **R. Chelariu**, I. Sandu, *Structure and composition disturbances in certain aluminium bronzes*, Metalurgia International, vol. XIII (2008), nr. 3, 14-20
Indexată Scopus

G. Lucrări științifice publicate în reviste din străinătate.

H. Lucrări științifice publicate în reviste din țară, recunoscute CNCSIS.

- 53.** L.A. Dragan(Raileanu), C. Munteanu, D. Mareci, L.G. Pintilei, **R. Chelariu**, C. Axinte, *Electrochemical studies of corrosion behaviour of experimental TiNbZrAl alloys in artificial saliva*, Bul. Inst. Pol. Iași, Tomul LVIII(LXII), Fasc. 2, 2012, 253-262
- 54.** A.D. Gheorghiu, **R. Chelariu**, N. Cimpoesu, *Study about the main influences on materials flow in friction stir welding process*,Bul. Inst. Pol. Iași, Tomul LVII (LXI), Fasc. 3, 2011, 123-130
- 55.** C. Roman, **R. Chelariu**, I. Carcea, R. Comaneci, G. Popescu, M. Axinte, *Research on aluminium alloy modifications with severe plastic deformed AlTi5B1 finishing pre-alloy*, Bul. Inst. Pol. Iași, Tomul LVII (LXI), Fasc. 4, 2011, 145-154
- 56.** L. Zaharia, **R. Chelariu**, R. Comaneci, A. Dinescu, D.C. Achitei, *Microstructural investigations on some nanocrystalline metallic materials obtained by severe plastic deformation (SPD) techniques*, Bul. Inst. Pol. Iași, Tomul LV (LIX), Fasc. 4, 2009, 481-486
- 57.** R. Chelariu, C. Roman, I. Carcea, R. Comaneci, I. Ionita, S. Ivanescu, *Effects of the electron beam melting conditions on the chemical composition of TiNiNb alloy*, Bul. Inst. Pol. Iași, Tomul LV (LIX), Fasc. 4, 2009, 69-76
- 58.** R. Comaneci, L. Zaharia, **R. Chelariu**, *Severe plastic deformation by multiaxial forging. A finite element simulation*, Bul. Inst. Pol. Iași, Tomul LV (LIX), Fasc. 4, 2009,121-126
- 59.** G. Pop , I. Carcea, N. Forna ,O. Ciobanu ,G.Ciobanu, **R. Chelariu**, M.D. Vlad, *Research regarding the processing and clinical applications of bioactive dental metal implants*, Bul. Inst. Pol. Iași, Tomul LV (LIX), Fasc. 4, 2009, 297-303
- 60.** B. Nicolau, D.M. Aelenei, **R. Chelariu**, I. Petreus, N. Aelenei, *Some aspects concerning the chemical treatment of the titanium implant surfaces*, Bul. Inst. Pol. Iași, Tomul LV (LIX), Fasc. 3, 2009, 93-100
- 61.** **R. Chelariu**, C. Roman, I. Carcea, D. Mihai, *Experimental check of a mathematical model of solidification*, Bul. Inst. Pol. Iași, Tomul LIV (LVIII), Fasc. 1-2, 2008, 163-169
- 62.** M. Lungu, N. Aelenei, D. Mareci, **R. Chelariu**, *Corrosion behaviour of a HSLA steel as a function of immersion time in natural seawater*, Bul. Inst. Pol. Iași, Tomul LIV (LVIII), Fasc. 4, 2008, 63-74
- 63.** G. Pop, L. Verestiuc, G. Ciobanu, O. Ciobanu, I. Carcea, **R. Chelariu**, N. Lupu, M. Rostami, V. Dia, *Researches concerning bioactive metal-ceramic implants*, Bul. Inst. Pol. Iași, Tomul LIII (LVII), Fasc. 1, 2007, 211-217
- 64.** I. Carcea, C. Roman, **R. Chelariu**, M. Gherghe, *Optimization of the power factor in metal and alloy casting sectors*, Bul. Inst. Pol. Iași, Tomul LIII (LVII), Fasc.2, 2007, 281-285
- 65.** M.Agop, C.Roman, D.Taloi, I. Surcel, **R. Chelariu**, P. Ioannou, *Studiul fenomenelor la interfața electrod/electrolit utilizând metoda teoria fractalică*, Metalurgia, nr. 3, 2007, pg. 12-20
- 66.** M.Agop, P.Vizureanu, **R.Chelariu**, *Simularea diagramelelor de echilibru pentru aliaje binare*, Metalurgia, nr. 7, 2006, pg. 11-18
- 67.** I. Carcea, S. Stanciu, V. Dobrea, **R. Chelariu**, C. Roman, *Cu-Al-Ni shape memory alloys with Mn and Ti additions*, Bul. Inst. Pol. Iași, Tomul LII (LVI), Fasc. 3, 2006, 25-30
- 68.** D. Mareci, G. Ungureanu, D. Aelenei, **R. Chelariu**, *Potentiodynamic polarization and electrochemical impedance spectroscopy characterization of a copper based alloy*. Bul.Inst. Pol Iași, TomulLII (LVI), Fasc.3, 2006,105-110
- 69.** Fl. Diaconescu, **R. Chelariu**, *Des recherches concernant l'influence de la température de chauffage préalable sur la distribution du Pb dans les pièces coulées par centrifugation en bronze CuPb10Sn10*, Bul. Inst. Pol. Iași, Tomul LII (LVI), Fasc. 1, 2006, 201-206
- 70.** Fl. Diaconescu, **R. Chelariu**, *Des recherches concernant l'influence de la rotation de la coquille sur la distribution du Pb dans les pièces coulées par centrifugation en bronze CuPb10Sn10*, Bul. Inst. Pol. Iași, Tomul LII (LVI), Fasc. 1, 2006, 207-210

- 71.** R. Chelariu, D.M. Gordin, T. Gloriant, I. Carcea, C. Roman, *The influence of some thermal treatment parameters on structure and microhardness of some titanium alloys*, Bul. Inst. Pol. Iași, Tomul LII (LVI), Fasc. 1, 2006, 1-7
- 72.** R. Comaneci, L. Zaharia, **R. Chelariu**, C. Roman, *The evaluation of strain in severe plastic deformation by equal channel angular pressing*, Bul. Inst. Pol. Iași, Tomul LII (LVI), Fasc. 6A, 2006, 133-138
- 73.** L.-Gh. Bujoreanu, **R. Chelariu**, C. Roman, *The effects of Nb additions on the thermomechanical behavior of Ni-Ti shape memory alloy*, Bul. Inst. Pol. Iași, Tomul LII (LVI), Fasc. 6B, 2006, 117-127
- 74.** Z. el-Louh, Șt. Lăcătușu, L. Zaharia, R. Comăneci, M. Craus, **R. Chelariu**, *Analiza structurală a două tipuri de amalgame utilizate în restaurările din zona laterală*, Medicina Stomatologică, vol. 9, nr. 1, 2005, 9-11
- 75.** Z. el-Louh, Șt. Lăcătușu, L. Zaharia, R. Comăneci, M. Craus, **R. Chelariu**, *Caracterizarea materialelor dentare folosite în restaurările din zona laterală*, Medicina Stomatologică, vol. 9, nr. 1, 2005, 17-19
- 76.** R. Comaneci, A.M. Vitalariu, L. Zaharia, **R. Chelariu**, *Study of mechanical behaviour of dental restorations by using data acquisition systems*, Bul. Inst. Pol. Iași, Tomul LI (LV), Fasc. 2, 2005, 117-122
- 77.** M. Beloiu, I. Alexandru, **R. Chelariu**, C. Roman, I. Carcea, *The influence of modification on the physico-mechanical properties of some tin bronzes*, Bul. Inst. Pol. Iași, Tomul LI (LV), Fasc. 1, 2005, 69-76
- 78.** M. Beloiu, I. Alexandru, C. Roman, **R. Chelariu**, I. Carcea, *Wear behaviour of some bronzes*, Bul. Inst. Pol. Iași, Tomul LI (LV), Fasc. 1, 2005, 77-81
- 79.** V. Rusu, I. Toma, **R. Chelariu**, P. Nica, *Metal-ceramic interfaces studies by means of a structural analysis*, Bul. Inst. Pol. Iași, Tomul L (LIV), Fasc. 1-2, 2004, 117-124
- 80.** **R. Chelariu**, C. Roman, I. Carcea, S. Stanciu, *The influence of the heat treating on structure of some copper alloys*, Bul. Inst. Pol. Iași, Tomul L (LIV), Fasc. 1-2, 2004, 55-62
- 81.** **R. Chelariu**, S. Ivanescu, *The influence of some process parameters on the losses of alloying elements during the elaboration of Ti₅Al_{2.5}Fe alloy*, Bul. Inst. Pol. Iași, Tomul XLIX (LIII), Fasc. 1-4, 2003, 1-6
- 82.** Gh. Nemtoi, Delia Aelenei, D. Mareci, **R. Chelariu**, I. Petreus, N. Aelenei, *Dental alloys-electrochemical behavior in simulated human fluids*, Annals of West University of Timisoara, Series Chemistry, 2003, 12(3), 619-628
- 83.** D. Aelenei, Gh. Nemtoi, I. Petreus, **R. Chelariu**, D. Mareci, N. Aelenei, *Corrosion behavior of Gaudent-type dental alloys in Ringer and artificial saliva solutions*, Bul. Inst. Pol. Iași, Tomul XLIX (LIII), Fasc. 5, 2003, 189-193
- 84.** S. Stanciu, I. Carcea, C. Roman, **R. Chelariu**, *Studiu comparativ privind proprietățile unor aliaje cu memoria formei din sistemul Cu-Al-Ni aliate cu Mn*, Revista de Turnatorie, anul IX, nr. 1-2, 2003, 17-18
- 85.** **R. Chelariu**, Gh. Nemtoi, N. Aelenei, Delia Aelenei, D. Mareci, *The effects of metallurgical processing on corrosion behavior of Ti₆Al₄V and Ti₆Al₇Nb alloys in acid and Ringer's solution*, Analele științifice ale Universitatii "Al.I.Cuza" Iasi, Seria Chimie, tomul X, nr. 1, ian.-iun., 2002, 37-48
- 86.** N. Aelenei, Gh. Nemtoi, D. Mareci, Delia Aelenei, Carmen Chiper, **R. Chelariu**, *Some typical cyclic voltamograms obtained for dental alloys in simulated human body fluids*, Studia Universitatis Babes-Bolyai, Chemia, XLVI, 1-2, 2001, 105-110
- 87.** C. Roman, **R. Chelariu**, I. Carcea, L. Firescu, *Researches concerning of the particles incorporation degree and dispersion in an aluminum matrix composites*, Bul. Inst. Pol. Iași, Tomul XLVII (LI), Fasc. 1-2, 2001, 54-59
- 88.** **R. Chelariu**, *The control of chemical composition of titanium-based materials during elaboration in electron beam furnaces*, Bul. Inst. Pol. Iași, Tomul XLV (IL), Fasc. 1-2, 1999, pg. 113-118

- 89.** I.Alexandru, I. Carcea, C. Roman, **R. Chelariu**, *The obtaining of some MMCs for tribological uses*, Bul. Inst. Pol. Iași, Tomul XLV(IL), Fasc.3-4, 1999, pg.13- 17
- 90.** C. Roman, **R. Chelariu**, I. Alexandru, I. Carcea, *The utilization of magnesium as tensioactive element to obtain MMCs reinforced with particle*, Bul.Inst.Pol. Iași,Tomul XLV (IL), Fasc.3-4,1999, pg. 25-29
- 91.** **R. Chelariu**, I. Petreus, N. Forna, C. Baciu, S. Ivănescu, A Strat, *The researches on the biocompatibility of some surface-treated titanium-based materials*, Bul. Inst. Pol. Iași, Tomul XLV (IL), Fasc. 1-2, 1999, 119-125

I. Lucrări științifice publicate în volumele conferințelor.

Volume indexate ISI

- 1.** Carcea I., **Chelariu R.**, Asavei L., Cimpoesu N., Florea, R.M., *Investigations on composites reinforced with HEA particles*, MODTECH INTERNATIONAL CONFERENCE - MODERN TECHNOLOGIES IN INDUSTRIAL ENGINEERING V, Book Series: IOP Conference Series-Materials Science and Engineering, 2017, 227, 012021
- 2.** Buluc G., Florea I., **Chelariu R.**, Popescu G., Carcea I., *Investigation of the mechanical properties of FeNiCrMnSi high entropy alloy wear resistant*, INTERNATIONAL CONFERENCE ON INNOVATIVE RESEARCH - ICIR EUROINVENT 2016, Book Series: IOP Conference Series-Materials Science and Engineering, Volume: 133, Published: 2016
ISI Proceedings
- 3.** A.C. Barbinta, **R. Chelariu**, M. Benchea, C.I. Crimu, S.I. Strugaru, C. Munteanu, *A comparative analysis of new Ti-Nb-Zr-Ta orthopedic alloys*, ModTech International Conference - Modern Technologies in Industrial Engineering, Jun 27-29, 2013, Sinaia, ROMANIA, Book Series: Advanced Materials Research Vol. 837, 259-264, 2014
ISI Proceedings
- 4.** Mareci D., **Chelariu R.**, Gordin DM., Romas M., Sutiman D., Gloriant T., *The Corrosion Behaviour of Ti20Mo Alloy in Non-pasteurized and Pasteurized Orange Juice*, 12th World Conference on Titanium (Ti-2011), Nonferrous Met Soc China, Beijing, PEOPLES R CHINA, JUN 19-24, 2011, TI-2011: PROCEEDINGS OF THE 12TH WORLD CONFERENCE ON TITANIUM, VOL III, p. 2081-2085, Published 2012
ISI Proceedings
- 5.** Gheorghiu D., Roman C., **Chelariu R.**, *MICROSTRUCTURAL STUDY OF THE FRICTION STIR WELDED JOINTS ON SOME ALUMINUM ALLOYS*, 15th International Conference of Modern Technoliges, Quality and Innovation, Vadul lui Voda, MOLDOVA, MAY 25-27, 2011, MODTECH 2011: NEW FACE OF T.M.C.R., VOL I AND II, Book Series: International Conference ModTech Proceedings, p. 457-460, Published 2011
ISI Proceedings
- 6.** D Nedelcu, O Milosevic, **R Chelariu**, C Roman, D Cretu, *Overview of stratified composite materials with metallic matrix*, The 14th International Conference ModTech 2010, 20-22 May, 2010, Slanic Moldova, Romania, MODTECH 2010: NEW FACE OF TMCR, Book series: Proceedings of the International Conference ModTech, p. 423-426, Published 2010
ISI Proceedings
- 7.** D. Mareci, G. Ciurescu, **R. Chelariu**, I. Cretescu, D. Sutiman, *In vitro corrosion study by electrochemical and surface analysis techniques of a Ti50Ta alloy for dental applications*, 5th International Conference on Environmental Engineering and Management (ICEEM 05), SEP 15-19, 2009, Tulcea, ROMANIA, Environmental Engineering and Management Journal, vol. 9, issue1, 81-87, JAN 2010
ISI Proceedings
- 8.** C. Roman, I. Carcea, **R. Chelariu**, V. Soare, *Pressing and sintering of TiO₂ powder cathode used to obtain titanium by electrochemical reduction*, 19th International Symposium of the Danube-Adria-Association-for-Automation-and-Manufacturing, OCT 22-25, 2008, Trnava, SLOVAKIA,

ANNALS OF DAAAM FOR 2008 & PROCEEDINGS OF THE 19TH INTERNATIONAL DAAAM SYMPOSIUM: INTELLIGENT MANUFACTURING & AUTOMATION: FOCUS ON NEXT GENERATION OF INTELLIGENT SYSTEMS AND SOLUTIONS Book Series: Annals of DAAAM and Proceedings of the International DAAAM Symposium, p. 1185-1186, 2008
ISI Proceedings

9. Comaneci R., L. Zaharia, **R. Chelariu**, *Achieving high temperature deformation for Al-Mg alloys processed by severe plastic deformation*, 19th International Symposium of the Danube-Adria-Association-for-Automation-and-Manufacturing, OCT 22-25, 2008, Trnava, SLOVAKIA, ANNALS OF DAAAM FOR 2008 & PROCEEDINGS OF THE 19TH INTERNATIONAL DAAAM SYMPOSIUM: INTELLIGENT MANUFACTURING & AUTOMATION: FOCUS ON NEXT GENERATION OF INTELLIGENT SYSTEMS AND SOLUTIONS Book Series: Annals of DAAAM and Proceedings of the International DAAAM Symposium, p. 299-300, 2008
ISI Proceedings

10. I. Carcea, C. Roman, **R. Chelariu**, *The influence of the preheating temperature and the feeding rate of metallic melt with particles to the preparation of the liquid alloy/non-metallic particles suspensions*, 5th European Conference on Advanced Materials and Processes and Applications (EUROMAT 97), APR 21-23, 1997, Maastricht, NETHERLANDS, Proceedings of the 5th European Conference on Advanced Materials and Processes and Applications- EUROMAT 97, vol. 1, Metals and Composites 1997, p. 381-385

ISI Proceedings

11. M. Mareş, I. Carcea, **R. Chelariu**, C. Roman, *Mechanical and tribological properties of aluminium matrix composites after ageing treatments*, 5th European Conference on Advanced Materials and Processes and Applications (EUROMAT 97), APR 21-23, 1997, Maastricht, NETHERLANDS, Proceedings of the 5th European Conference on Advanced Materials and Processes and Applications- EUROMAT 97, vol. 1, Metals and Composites 1997, p. 423-426
ISI Proceedings

Volume indexate BDI

12. Buluc G., **Chelariu R.**, Popescu G., Sârghi M., Carcea, I., *Study on wear resistance FeNiCrMnAl high entropy alloy - Mechanical properties*, Key Engineering Materials, 2017; 750 KEM:34-38, 6th International Conference on Materials Science and Technologies, RoMat 2016; Bucharest; Romania; 9-12 November 2016

Volume neindexate

13. R. Comaneci, **R. Chelariu**, L. Zaharia, *Processing of aluminum and Al-Mg alloys by severe plastic deformation*, Proceedings of 17th International Metallurgical & Materials Conference, 13-15.05.2008, Ostrava, Czech Republic

14. R.Comaneci, L. Zaharia, **R. Chelariu**, *Simularea cu element finite a deformării plastice severe prin presare în canale unghiulare egale/Finite Element Simulation of Severe Plastic deformation by Equal Channel Angular Pressing*, Proceedings of National Conference of Metallurgy and Materials Science-ROMAT 2008, September 25-26, 2008, Bucharest, Romania, 239-246

15. R. Comaneci, L. Zaharia, **R. Chelariu**, C. Bejenariu, *The prediction of deformation load in severe plastic deformation by equal channel angular pressing*, Proceedings of 10th National Conference of Metallurgy with international participation, 28th-31th May 2007, Varna, Bulgaria

16. I. Sandu, L. Zaharia, I.G. Sandu, R. Comaneci, **R. Chelariu**, A.V. Sandu, *The compatibilisation of non-ferrous alloys components based on chemical and function character*, Proceedings of 4th International Conference ARTCAST 2008, 9-10 May, 2008, Galati, România, 255-261

17. E. Delvat, D.M. Gordin, T. Gloriant, **R. Chelariu**, J. L. Duval, M.D. Nagel, *Synthesis, microstructure and cytocompatibility of new beta titanium alloy for biomedical applications*, Ti 2007 Science and Technology, Proceedings of Ti-2007, The 11th World Conference on Titanium, June 3-7, 2007, Kyoto, Japan

- 18.** R. Comănci, **R. Chelariu**, L. Zaharia, C. Bejinariu, C. Roman, *Experimental aspects regarding equal channel angular pressing of aluminium and Al-Mg alloys*, International Conference on Material Science and Engineering BRAMAT 2007, Brașov, Romania, 22-24 February, 2007, Bulletin of the Transilvania University of Brașov, supliment BRAMAT 2007, 141-146
- 19.** M. Agop, I. Carcea, **R. Chelariu**, V. Soare, M. Târcolea, *Phenomena modeling at the electrode/electrolyte interface*, International Conference on Material Science and Engineering BRAMAT 2007, Brașov, Romania, 22-24 February, 2007, Bulletin of the Transilvania University of Brașov, supliment BRAMAT 2007, 515-520
- 20.** V. Soare, M. Burada, I. Surcel, V. I. Soare, M. Târcolea, **R. Chelariu**, *Nd-Fe ecological alloys obtaining process by electroreduction of the oxides in chloride media*, International Conference on Material Science and Engineering BRAMAT 2007, Brașov, Romania, 22-24 February, 2007, Bulletin of the Transilvania University of Brașov, supliment BRAMAT 2007, 73-78
- 21.** A. M. Vițălariu, L. Zaharia, R. Comănci, **R. Chelariu**, *Rezistența la fractură dinților restaurați cu pivoturi armate cu fibre de carbon*, Zilele Facultății de Medicină Dentară-Ediția a IX-a, 4÷6 Martie, 2005, Iași, pg. 318-321
- 22.** D. Diaconu, Șt. Panaite, L. Zaharia, R. Comănci, **R. Chelariu**, *Cercetări privind influența inlay-urilor din aliaje de aur asupra rezistenței la fractură a țesuturilor dure dentare*, Zilele Facultății de Medicină Dentară-Ediția a IX-a, 4÷6 Martie, 2005, Iași, pg. 93-97
- 23.** C. Roman, I. Carcea, **R. Chelariu**, L. Firescu, *Structural changes determinated by a treatment method of some tin bronzes in liquid state*, International Conference on Advanced Materials and Technologies, ROMAT 2004, București, 21-22 oct. 2004, 268-275
- 24.** **R. Chelariu**, Gh. Nemtoi, D. Aelenei, D. Mareci, N. Aelenei, *The electrochemical corrosion behaviour of titanium alloy biomaterials in Ringer's solution*, Proceedings of The Second International Conference on Advanced Materials and Structures, Timisoara-Romania, 19-21 September, 2002, 69-74
- 25.** D. Gordin, I. Petreus, **R. Chelariu**, *The quantitative analysis of microstructure of the thin layers obtained by laser gas nitriding of Ti6Al4V biocompatible alloy*, Proceedings of The Second International Conference on Advanced Materials and Structures, Timisoara-Romania, 19-21 September, 2002, 179-182
- 26.** C. Roman, **R. Chelariu**, M.A. Mares, I. Carcea, *The structural analysis and the properties of some aluminium alloy matrix composites reinforced with particles*, Proceedings of The Second International Conference on Advanced Materials and Structures, Timisoara-Romania, 19-21 September 2002, 319-324
- 27.** D. Aelenei, **R. Chelariu**, D. Mareci, D. Gordin, I. Petreus, N. Aelenei, *Influence of process conditions on hydroxyapatite properties*, Proceedings of The Second International Conference on Advanced Materials and Structures, Timisoara-Romania, 19-21 September, 2002, 13-18
- 28.** N. Forna, V. Burlui, D. Budaie, D. Aelenei, **R. Chelariu**, *Comportarea electrochimică a aliajului Ti6Al4V în soluții Ringer*, Zilele Sfintei Apollonia – Tehnologii Contemporane în clinică și laborator, 9-10 februarie 2001, Iași, pg. 303-306
- 29.** F. Pop, **R. Chelariu**, D. Pop, *Microalierea superficială a fontelor cenușii în vederea creșterii rezistentei la uzare*, Tehnologii, Sisteme Tehnologice și Materiale Performante în Construcția de Mașini-TSTM1, vol. II, 1995, Bacău, 312-314
- 30.** C. Baciu, I. Petreus, M. Baciu, **R. Chelariu**, *Morfologia frontului de creștere la solidificarea dirijata a compozitului Al-Si*, Tehnologii, Sisteme Tehnologice și Materiale Performante în Construcția de Mașini-TSTM1, vol. II, 1995, Bacău, 435-438

J. Invenții.

- 1.** Nedelcu Dumitru, Cobzaru Petru, Scurtu Popa Ramona, **Chelariu Romeo**, *Matriță pentru obținerea prin forjarea lichidă a mostrelor de material compozit cu matrice metalică*, Brevet de inventie nr. 00126022 B1/30/03/2017, BOPI nr. 3/2017, p.76

K. Contracte de cercetare.

P1 Integrarea cercetarii romanesti din domeniul obținerii unor noi biomateriale avansate pe bază de titan cu biocompatibilitate optimă, în programele europene și internaționale, Contract de cercetare CEEEX M3, cf.245/01.08.2006, 2006-2008, DIRECTOR DE PROIECT

P2 Biomateriale metalice avansate, nanostructurate, pentru implante ortopedice, Contract de cercetare PNCDII-Parteneriate, cf nr. 72-188, 2008-2011, RESPONSABIL DE PROIECT UT Iasi

P3 Structuri 3D și 2D din aliajeternare biocompatible cu memoria formei Contract de cercetare CEEEX, c.f. 25/03.10.2005, beneficiar Institutul Național de Cercetare- Dezvoltare pentru Optoelectronică, INOE 2000, 2005-2008, RESPONSABIL DE PROIECT UT Iasi

P4 Multifunctional nanostructured titanium implant surfaces and biomechanical considerations of animal models used in tissue engineering of bone, MNT ERA-Net, Contract: 18-ES-IS/2006, 2006 – 2008 (membru în colectivul de lucru al partenerului român UT Iasi), finantat prin proiectul PNCDII-Parteneriate, MNT 7-010/2008, Membru

P5. Noi aliaje/compozite cu entropie înaltă, cu proprietăți mecanice și anticorozive superioare, pentru aplicații la temperaturi ridicate, PN II-PCPC- contract de finanțare 270/2014, 2014-2016, Membru

P6. Predicții de coroziune pentru biomaterialele de titan cu suprafete neomogene micro și nanostrucurate utilizând rețele neuronale PNII-IDEI- contract 266/05.10.2011, 2011-2015, Membru

P7. Metoda nouă de protecție anticorozivă a materialelor din otel prin electrodepunerea de filme subtiri din aliaje ternare Zn-Ni-P, PN II Parteneriate, c.f. 72-221/2009, 2009-2011, Membru

P8. Aliaje de aluminiu nanostructurate cu caracteristici mecanice înalte, Contract de cercetare PNCDII-Parteneriate, cf. 72-205, 2008-2011, Membru

P9. Metode noi de sinteză a materialelor compozite prin procese in situ, contract de cercetare PN II-Parteneriate, c.f. 71-058/2007, 2007-2011, Membru

P10 Cercetări avansate privind obtinerea materialelor compozite cu ranfort sub formă de particule și stratificat, Contract de cercetare PNCDII-Parteneriate, cf 71-071, 2007-2010, Membru

P11. Modelarea matematică a proceselor care au loc la turnarea pieselor metalice, în vederea reducerii consumurilor de materiale și energie beneficiar Universitatea Politehnica București-CEMS Contract de cercetare CEMS, c.f 260/11.09.2006 2006-2008, Membru

P12. Materiale multifuncționale cu granulație ultrafină/nanometrică obținută prin deformare plastică severă, CEEEX nr.193/20.07.2006, 2006-2008, beneficiar AMCSIT-Politehnica București, Membru

P13. Obținerea și caracterizarea unor materiale metalice nanocristaline, contract CEEEX C99/19.09.2006, 2006-2008, beneficiar MATNANTECH București, Membru

P14. Modelarea proceselor fizico-chimice în elaborarea unei metode noi, ecologice, de obținere a titanului, Grant CNCSIS nr.78G/01.06.2006, beneficiar M.E.C 2008, Membru

P15. Modelarea proceselor fizico-chimice în elaborarea unei metode noi, ecologice, de obținere a titanului, beneficiar M.E.C, Grant CNCSIS nr.78G/01.02.2006, 2007, Membru

P16. Aliaje Al-nMg nanostructurate prin DPS, cu comportare superplastică, Grant CNCSIS, cod 300, cotract GR 80/19.05.2006, beneficiar M.E.C,2007, Membru

P17. Aliaje Al-nMg nanostructurale prin DPS, cu comportare superplastică, Grant CNCSIS, cod 300, contract GR 63/2006, beneficiar M.E.C, 2006, Membru

P18. Concept inovativ de realizare in jet de plasma a straturilor dure cu proprietati controlate rezistente la uzura si coroziune, Proiect CEEEX, c.f. 67/2006, 2006-2008, Membru

P19. Straturi tip bariera termica pentru pistoanele motoarelor cu ardere internă, Proiect CEEEX, c.f. 7/2005, 2005-2008, Membru

P20. Influența modificărilor asupra structurii, deformabilității și caracteristicilor de material cu memoria formei la aliajele din sistemul (Cu,Ni)-(Co, Mn)-(Al, Ga, Sb), Contract de cercetare MATNANTECH, proiect PNCDI I1825/2003, c.f 159(302)/2003, beneficiar Facultatea de Chimie Industrială- Universitatea Politehnica București, 2003-2005, Membru

P21. Îmbunătățirea caracteristicilor fizico-mecanice și tribologice ale aliajelor din sistemul Cu-Sn prin modificare în stare lichidă, Contract de cercetare RELANSIN, proiect 6904/12.02.2001, c.f 1490/02.08.2001, beneficiar AMCSIT-Politehnica București, 2001-2004, Membru

P22. Obținerea aliajelor (magnetice) cu memoria formei din sistemul (Cu, Ni)(Co,Mn) (Al, Ga), Contract de cercetare matnantech, proiect PNCDI I nr.10 20217, c.f. 79/11.11.2001, beneficiar Facultatea de Chimie Industrială-Universitatea Politehnica București, 2001-2002, Membru

L. Premii, distincții.

M. Alte realizări semnificative.

Data,
15.01.2018

* Conform H.G. 1175/ 2006