Anexa II.9b-Lista de lucrări

Lista de lucrări în domeniul de studii universitare de licență Ingineria Materialelor

Numele și prenumele: Pricop Bogdan

A. Teza de doctorat.

Contribuții la obținerea și caracterizarea unor aliaje cu memoria formei pe bază de Fe

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

Capitol carte: Leandru Gheorghe Bujoreanu, **Bogdan Pricop**, Nicoleta Monica Lohan, Marius Gabriel Suru, Bogdan Istrate, Capitol de carte: Structural and Chemical Variations Induced by Thermomechanical Cycling in Shape Memory Actuators, Marimuthu Muruganant et al. (Eds) Frontiers in Materials Processing, Applications, Research and Technology, 978-981-10-4818-0, 431209_1_En, (7)

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

1. Mihalache, E., **Pricop, B.**, Comăneci, R.I., Suru, M.G., Lohan, N.M., Mocanu, M., Özkal, B., Bujoreanu, L.G., *Structural Effects of Thermomechanical Processing on the Static and Dynamic Responses of Powder Metallurgy Fe-Mn-Si Based Shape Memory Alloys*, Advances in Science and Technology, vol. 97, pp.153-158, 2017
2. Mocanu, M., Mihalache, E., Comăneci, R.I., **Pricop, B.**, Özkal, B., Bujoreanu, L.G., *Tensile Stress-Induced Structural Changes Associated with Martensite Transformations in Fe-Mn-Si Based Shape Memory Alloys*, Materials Science Forum, vol. 907, pp. 25-30, 2017
3. Popa, M., Pricop, B., Mihalache, E., Bujoreanu, L.G., Lohan, N.M., Hot Working Effects on the Damping Behavior of Shape Memory Alloys, Materials Science Forum, vol. 907, pp. 180-187, 2017
4. Popa, M., **Pricop, B.**, Mihalache, E., Bujoreanu, L.G., *Storage modulus and internal friction variations in a Fe-28 Mn-6Si-5Cr (mass. %) shape memory alloy analyzed by three-point-bending DMA*, (2017) IOP Conference Series: Materials Science and Engineering, 227 (1), art. no. 012099, DOI: 10.1088/1757-899X/227/1/012099
5. Suru, M.-G., Lohan, N.-M., Mihalache, E., **Pricop, B.**, Mocanu, M., Bujoreanu, L.-G., *AFM evaluation of pre-straining degree effects on the dimensions of stress induced martensite plates in Fe-Mn-Si based SMAs* (2017) Journal of Testing and Evaluation, 45 (2), pp. 419-427. DOI: 10.1520/JTE20150435
6. Lohan, N.M., **Pricop, B.**, Burlacu, L., Bujoreanu, L.-G. *Using DSC for the detection of diffusion-controlled phenomena in Cu-based shape memory alloys* (2016) Journal of Thermal Analysis and Calorimetry, pp. 1-10. Article in Press. DOI: 10.1007/s10973-016-5926-4
7. Ursanu, A.I., Stanciu, S., **Pricop, B.**, Săndulache, F., Cimpoeșu, N. *Dynamic mechanical analyze of superelastic CuMnAl shape memory alloy* (2016) IOP Conference Series: Materials Science and Engineering, 147 (1), art. no. 012032, DOI: 10.1088/1757-899X/147/1/012032
8. Vitel, G., **Pricop, B.**, Suru, M.-G., Lohan, N.M., Bujoreanu, L.-G. *Study of temperature memory effect during the thermal cycling in hydraulic systems* (2016) Journal of Testing and Evaluation, 44 (4), pp. 1525-1534. DOI: 10.1520/JTE20140138
9. Suru, M.-G., Lohan, N.-M., **Pricop, B.**, Mihalache, E., Mocanu, M., Bujoreanu, L.-G. *Precipitation Effects on the Martensitic Transformation in a Cu-Al-Ni Shape Memory Alloy* (2016) Journal of Materials Engineering and Performance, 25 (4), pp. 1562-1569. DOI: 10.1007/s11665-016-1981-z

10. Spiridon, I.-P., Lohan, N.-M., Suru, M.-G., Mihalache, E., Bujoreanu, L.-G., **Pricop, B.** *A study of free recovery in A Fe – Mn – Si – Cr shape memory alloy* (2016) Metal Science and Heat Treatment, 57 (9-10), pp. 548-552. Cited 3 times. DOI: 10.1007/s11041-016-9920-z
11. Mihalache, E., **Pricop, B.**, Lohan, N.-M., Suru, M.-G., Ozkal, B., Bujoreanu, L.-G. *Internal friction evaluation in mechanically alloyed-powder metallurgy Fe-Mn-Si-Cr-Ni shape memory alloys* (2016) International Journal of Modern Manufacturing Technologies, 8 (1), pp. 61-68.
12. **Pricop, B.**, Özkal, B., Söyler, U., Van Humbeeck, J., Lohan, N.M., Suru, M.-G., Spiridon, I.-P., Bujoreanu, L.-G. *Structural changes caused by high-temperature holding of powder shape memory alloy 66% Fe – 14% Mn – 6% Si – 9% Cr – 5% Ni* (2016) Metal Science and Heat Treatment, 57 (9), pp. 553-558. DOI: 10.1007/s11041-016-9921-y
13. Mihalache E., **Pricop B.**, Lohan N.-M., Suru M.-G., Ozkal B., Bujoreanu L.-G., *Internal Friction Evaluation in Mechanically Alloyed-Powder Metallurgy Fe-Mn-Si-Cr-Ni Shape Memory Alloys*, International Journal of Modern Manufacturing Technologies, ISSN 2067–3604, Vol. VIII, No. 1 / 2016, pp. 61-68
14. **Pricop, B.**, Mihalache, E., Lohan, M.-N., Istrate, B., Mocanu, M., Ozkal, B., Bujoreanu, L.-G. *Powder metallurgy and mechanical alloying effects on the formation of thermally induced martensite in an FeMnSiCrNi SMA* (2015) MATEC Web of Conferences, 33, art. no. 04004, DOI: 10.1051/matecconf/20153304004
15. Mihalache, E., **Pricop, B.**, Suru, M.-G., Lohan, N.M., Comăneci, R.I., Istrate, B., Özkal, B., Bujoreanu, L.-G. *Factors influencing martensite transitions in Fe-based shape memory alloys* (2015) MATEC Web of Conferences, 33, art. no. 04002, DOI: 10.1051/matecconf/20153304002
16. Lohan, N.M., Mihalache, E., **Pricop, B.**, Suru, M.G., Bujoreanu, L.G. *A study of R-phase transition and temperature memory effect in a commercial Nitinol wire* (2015) Journal of Optoelectronics and Advanced Materials, 17 (9-10), pp. 1431-1436. Cited 1 time.
17. Mihalache, E., Borza, F., Lupu, N., Lohan, N.M., **Pricop, B.**, Suru, M.-G., Bujoreanu, L.-G. *Thermomechanical processing effects on the martensitic transformation in Fe-based SMAs* (2015) Journal of Optoelectronics and Advanced Materials, 17 (9-10), pp. 1344-1347.
18. Suru, M.-G., Lohan, N.M., **Pricop, B.**, Spiridon, I.P., Mihalache, E., Comaneci, R.I., Bujoreanu, L.-G. *Structural effects of high-temperature plastic deformation process on martensite plate morphology in a Fe-Mn-Si-Cr SMA* (2015) International Journal of Materials and Product Technology, 50 (3-4), pp. 276-288. Cited 1 time. DOI: 10.1504/IJMPT.2015.068534
19. Gurău, G., Bujoreanu, L.G., Gurău, C., Comăneci, R.I., Lohan, N.M., **Pricop, B.**, Suru, M.G. *Superelastic-like response obtained at Fe-Mn-Si-Cr shape memory alloys processed by high-speed high pressure torsion* (2015) International Journal of Modern Manufacturing Technologies, 7 (1), pp. 23-27.
20. Bujoreanu, L.G., Comăneci, R.I., Gurău, G., Lohan, N.M., Suru, M.G., **Pricop, B.**, Goanţă, V., Muşat, V., Istrate, B., Mihalache, E. *Thermomechanical training effects of multifunctional modules processed by high-speed high pressure torsion* (2015) Indian Journal of Engineering and Materials Sciences, 22 (4), pp. 367-375. Cited 3 times.
21. Gurău Gheorghe, Bujoreanu Leandru G., Gurău Carmela, Comăneci Radu I., Lohan Nicoleta M., **Pricop Bogdan**, Suru Marius G., *Superelastic-Like Response Obtained at Fe-Mn-Si-Cr Shape Memory Alloys Processed by High-Speed High Pressure Torsion*, International Journal of Modern Manufacturing Technologies, ISSN 2067–3604, Vol. VII, No. 1 / 2015, pp. 23-27
22. Suru, M.G., Moroşanu, C., Comăneci, R.I., Mihalache, E., **Pricop, B.**, Lohan, N.M., Baciu, C., Bujoreanu, L.G. *Comparative evolution of surface relieves of stress-induced*

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24. Lohan, N.-M., Suru, M.-G., **Pricop, B.**, Bujoreanu, L.-G. *Cooling rate effects on the structure and transformation behavior of Cu-Zn-Al shape memory alloys* (2014) International Journal of Minerals, Metallurgy and Materials, 21 (11), pp. 1109-1114. DOI: 10.1007/s12613-014-1015-5
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26. **Pricop, B.**, Özkal, B., Söyler, U., Van Humbeeck, J., Lohan, N.M., Suru, M.G., Bujoreanu, L.-G. *Influence of mechanically alloyed fraction and hot rolling temperature in the last pass on the structure of Fe-14Mn-6Si-9Cr-5Ni (mass. %) shape memory alloys processed by powder metallurgy* (2014) Optoelectronics and Advanced Materials, Rapid Communications, 8 (3-4), pp. 247-250. Cited 5 times.
27. Suru, M.-G., Dan, I., Lohan, N.M., Paraschiv, A.L., **Pricop, B.**, Spiridon, I.P., Baciu, C., Bujoreanu, L.-G. *Effects of hot working procedure on surface relief characteristic in an Fe-Mn-Si-Cr shape memory alloy* (2014) Materialwissenschaft und Werkstofftechnik, 45 (1), pp. 44-50. Cited 4 times. DOI: 10.1002/mawe.201400190
28. Paraschiv, A.L., Borza, F., Suru, M.-G., **Pricop, B.**, Spiridon, I.P., Mihalache, E., Bujoreanu, L.-G. *Chemical composition and processing effects on the pseudoelastic response of α′ ferromagnetic martensite* (2013) Optoelectronics and Advanced Materials, Rapid Communications, 7 (11-12), pp. 881-886.
29. Spiridon, I.P., **Pricop, B.**, Suru, M.G., Paraschiv, A.L., Lohan, N.M., Bujoreanu, L-G. *The influence of heat treatment atmosphere and maintaining period on the homogeneity degree of a Fe-Mn-Si-Cr-Ni shape memory alloy obtained through powder metallurgy* (2013) Journal of Optoelectronics and Advanced Materials, 15 (7-8), pp. 730-733. Cited 4 times.
30. Paraschiv, A.-L., Borza, F., Lupu, N., Suru, M.-G., Lohan, N.M., **Pricop, B.**, Spiridon, I.-P., Bujoreanu, L.-G. *On some structural characteristics of Fe-base shape memory alloys* (2013) Journal of Optoelectronics and Advanced Materials, 15 (7-8), pp. 781-784. Cited 1 time.
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32. **Pricop, B.**, Söyler, U., Özkal, B., Monica Lohan, N., Liviu Paraschiv, A., Gabriel Suru, M., Bujoreanu, L.-G. *Influence of mechanical alloying on the behavior of Fe-Mn-Si-Cr-Ni shape memory alloys made by powder metallurgy* (2013) Materials Science Forum, 738-739, pp. 237-241. Cited 8 times. DOI: 10.4028/www.scientific.net/MSF.738-739.237
33. Vitel, G., Suru, M.G., Paraschiv, A.L., Lohan, N.M., **Pricop, B.**, Baciu, M., Bujoreanu, L.G. *Structural effects of training cycles in shape memory actuators for temperature control* (2013) Materials and Manufacturing Processes, 28 (1), pp. 79-84. Cited 8 times. DOI: 10.1080/10426914.2012.700157

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37. **Pricop, B.**, Söyler, U., Lohan, N.M., Özkal, B., Chicet, D., David, A., Bujoreanu, L.-G. *Mechanical alloying effects on the thermal behavior of a Fe-Mn-Si-Cr-Ni shape memory alloy under powder form* (2011) Optoelectronics and Advanced Materials, Rapid Communications, 5 (5), pp. 555-561. Cited 8 times.
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D. Lucrări ştiinţifice publicate în reviste din străinătate.

1. Spiridon I.P., Lohan N.M., Suru M.G., Mihalache E., Bujoreanu L.G., **Pricop B.**, *Study of free recovery in a Fe-Mn-Si-Cr shape memory alloy*, Metallovedenie I Termicheskaia Obrabotka Metallov, No. 9, issue 723, pp.: 30-34, 2015
2. **Pricop B.**, Özkal B., Soyler U., Van Humbeeck J., Lohan M.N., Suru M.G., Spiridon I.P., Bujoreanu L.G., *Structural changes caused by high-temperature holding of powder shape memory alloy 66% Fe-14%Mn-6%Si-9%Cr-5%Ni*, Metallovedenie I Termicheskaia Obrabotka Metallov, No. 9, issue 723, pp.: 35-40, 2015

E. Lucrări ştiinţifice publicate în reviste din ţară, recunoscute CNCSIS.

1. **Pricop B.**, Lohan (Mahu) N.M., Bujoreanu L.G., *Obtainment Of Fe-Mn-Si-Cr-Ni SMAs By Powder Metallurgy*, Buletinul Institutului Politehnic din Iaşi, Tomul LVII (LXI), Fasc. 1, Secţia Ştiinţa şi Ingineria Materialelor, pag. 71-77, 2011.
2. **Pricop B.**, Lohan (Mahu)N.M., Bujoreanu L.G., *Thermal cycling effects in Cu-Zn-Al shape memory alloys*, Buletinul Institutului Politehnic din Iaşi, Tomul LVI (LX), Fasc. 4, Secţia Ştiinţa si Ingineria Materialelor, pag. 65-70, 2010.
3. **Pricop B.**, Lohan (Mahu) N.M., Bujoreanu L.G., *Cycling effects on martensite reversion in Cu-based SMAs*, Buletinul Institutului Politehnic din Iaşi, Tomul LVI (LX), Fasc. 3, Secţia Ştiinţa şi Ingineria Materialelor, pag. 135-141, 2010.

F. Lucrări ştiinţifice publicate în volumele conferinţelor.

1. **PRICOP Bogdan**, LOHAN Nicoleta Monica, BORZA Firuța, LUPU Nicoleta, SURU Marius-Gabriel, MIHALACHE Elena, COMĂNECI Radu Ioachim, BUJOREANU Leandru-Gheorghe, *Structural changes associated with the pseudoelastic response of*

Fe-based shape memory alloys, The Annals of "Dunarea de Jos" University of Galati, Fascicle IX. Metallurgy and Materials Science, n0. 3 – 2014, pp. 20-25, issn 1453 – 083x

2. MIHALACHE Elena, LOHAN Monica-Nicoleta, **PRICOP Bogdan**, BUJOREANU Leandru-Gheorghe, SURU Marius-Gabriel, *Comparative characteristics of martensite and bainite in Cu-based SMAs*, The Annals of "Dunarea de Jos" University of Galati, Fascicle ix. Metallurgy and materials science, N0. 3 – 2014, pp. 36-40, issn 1453 – 083x
3. DIA Vasile, SÖYLER Umut, **PRICOP Bogdan**, ÖZKAL Burak and BUJOREANU Leandru-Gheorghe, *Characterization of Mechanically Alloyed Fe-Mn-Si-Cr-Ni Shape Memory Alloys. Hot Rolling Effects*, International Metallurgy and Materials Congress (2010), Istanbul, Turcia

4. Invenții.

1. Bujoreanu L G, Gurau G, Dan I, Stirbu C, Comaneci R I, Lohan N M, **Pricop B**, Paraschiv A L, Suru M G, Gurau C, *Multifunction Element With Self-Adaptive Axial Movement Made Of A Shape Memory Fe-Mn-Si-Cr Alloy*, Univ Iasi Tehnica Asachi Gheorghe (UYIA-Non-standard), 2015-10386Y.

5. Contracte de cercetare.

1. Aplicații cu revenire reținută, ale aliajelor cu memoria formei pe bază de Fe-(Mn, Ni)-Si, cu proprietăți controlate prin modificări nanostructurale la nivelul martensitei şi matricei austenitice. PN - II - ID - PCE - 2007 – 1 (**membru**)
2. Sistem modular de elemente multifuncționale cu deplasare auto-adaptivă. PCCA-2011-3.1-0174 (**membru**)
3. Nouă metodă de îmbunătățire a proprietăților de memoria formei prin controlul migrației atomic. PN-II-ID-PCE-2012-4-0033 (**membru**)
4. Un studiu al factorilor care favorizează termoelasticitatea în aliajele superelastice cu memoria formei pe bază de Fe. Tip proiect PN III PCE, nr. 76/2017. Perioadă desfășurare 12.07.2017-31.12.2019 (**membru**)

Data,

* Conform H.G. 1175/ 2006