

INFORMAȚII PERSONALE

Prica Virgiliu-Calin

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 Calin.prica@stm.utcluj.ro

Sexul M | Data nașterii 31.05.1972 | Naționalitatea ROMÂNĂ

EXPERIENȚA PROFESIONALĂ

Scrieți datele (de la - până la)

- 1996-2000 S.C. SIMACONS-CONSULTING S.R.L. Cluj - manager
- 2000-2003 Universitatea Tehnica din Cluj-Napoca, Facultatea de Ingineria Materialelor si a Mediului, Departamentul de Stiinta si Ingineria Materialelor – doctorand
- 2004-2009 Universitatea Tehnica din Cluj-Napoca, Facultatea de Ingineria Materialelor si a Mediului, Departamentul de Stiinta si Ingineria Materialelor – asistent
- 2009-prezent Universitatea Tehnica din Cluj-Napoca, Facultatea de Ingineria Materialelor si a Mediului, Departamentul de Stiinta si Ingineria Materialelor – sef de lucrari

EDUCAȚIE ȘI FORMARE

Scrieți datele (de la - până la)

2007
Doctor in Stiinta materialelor
Universitatea Tehnica din Cluj Napoca

1990-1995
Universitatea Tehnica din Cluj Napoca, Facultatea de Stiinta si Ingineria Materialelor
- inginer

1986-1990
Liceul de Matematica-Fizica nr. 1 din Cluj Napoca

Alte limbi străine cunoscute

	INTELEGERE		VORBIRE		SCRIERE
	Ascultare	Citire	Participare la conversație	Discurs oral	
ENGLEZA	B2	B2	B2	B2	B2
Scrieți denumirea certificatului – CERTIFICAT DE COMPETENTA LINGVISTICA. B2					
FRANCEZA	A1	A1	A1	A1	A1
Scrieți denumirea certificatului. Scrieți nivelul, dacă îl cunoașteți.					

Niveluri: A1/2: Utilizator elementar - B1/2: Utilizator independent - C1/2: Utilizator experimentat
Cadrul european comun de referință pentru limbi străine

Competențe de comunicare

- bune competențe de comunicare dobândite prin experiența didactică acumulată

COMPETENTE PERSONALE

Competențe dobândite la locul de muncă

- o bună cunoaștere a proceselor ce se desfășoară în obținerea pieselor prin agregare de pulberi;
- abilități în caracterizarea materialelor;

Competențe informatice

- o bună cunoaștere a instrumentelor Microsoft Office™

Permis de conducere

- CATEGORIA - B

INFORMATII ADITIONALE

- Director contract - ARUT 2023 - Materiale compozite cu coeficient de dilatare termică scăzut, de tip Invar/Si₃N₄ obținute prin sinterizare în plasmă din pulberi aliate mecanic
- Director contract - BOSCH Cluj – Investigarea unor aspecte privind lipirea unor componente
- Director contract – Armatura IAIFO Zalău – Analiza metalografică a unor fonte de tornatorie
- Membru în 17 proiecte naționale
- Autor a peste 50 de articole științifice, publicate în reviste ISI cu factor de impact, baze de date indexate, conferințe internaționale

Publicatii relevante în ultimii 3 ani

- **Prica, C.-V.**; Marinca, T.F.; Neamtu, B.V.; Sechel, A.N.; Popa, F.; Jozsa, E.M.; Chicinas, I. Invar/WC Composite Compacts Obtained by Spark Plasma Sintering from Mechanically Alloyed Powders. Materials 2022, 15, 6714 (IF – 3.4).

- **Călin V. Prică**, Niculina A. Sechel, Bogdan V. Neamtu, Traian F. Marinca, Florin Popa, Horea F. Chicinas, Ionel Chicinas, Superalloy/Al₂O₃ type Composite Compacts Obtained by Spark Plasma Sintering from Mechanically Alloyed Powders, Science of Sintering, 54 (2022) 335-347 (IF – 1.7)

- Traian Florin Marinca; Florin Popa; Bogdan Viorel Neamtu; **Virgiliu Călin Prică**; Ionel Chicinas, Permalloy/alumina soft magnetic composite compacts obtained by reaction of Al-permalloy with Fe₂O₃ nanoparticles upon spark plasma sintering, Ceramics International, Volume 49, Issue 2, 15 January 2023, Pages 2272-2281 (IF - 5.1)

Lista de lucrări

Cărți și capitole în cărți publicate

CĂRȚI

1. Șerban Domșa, Marius Bodea, **Călin Prică**, Proiectarea Materialelor, Ed. Casa Cărții de Știință, Cluj – Napoca, 2005, ISBN 973-686-688-2, 194 pagini.

Lucrări indexate în reviste ISI cu factor de impact

1. Muresan, R., Riti-Mihoc, E., **Prica C.V.**, Bodea, M., Improving mechanical properties of sintered wolfram based alloy with liquid phase trough controlled cooling parameters, *Archives of Metallurgy and Materials*, vol. 57, p. 87-92, **2012**.(IF 0.7)
2. **Calin-Virgiliu Prica**, Traian Florin Marinca, Florin Popa , Niculina Argentina Sechel, Olivier Isnard, Ionel Chicinas, Synthesis of nanocrystalline Ni₃Fe powder by mechanical alloying using an extreme friction mode, *Advanced Powder Technology* (**2016**), doi. 10.1016/j.apmt.2016.01.018(IF- 4.2)
3. **C.V. Prica** , B. V. Neamtu, F. Popa, T. F. Marinca, N. Sechel, I. Chicinas, Invar-type nanocrystalline compacts obtained by spark plasma sintering from mechanically alloyed powders, *Journal of Materials Science* (**2018**) 53:3735–3743 (IF- 3.5)
4. **Prică, C.V.**, Marinca, T.F., Neamtu, B.-V., Popa, F., Popescu, V., Chicinas, I., Structural and thermal investigation of Ta–25 mass% Cu alloy prepared by mechanosynthesis route, *Journal of Thermal Analysis and Calorimetry* **2019**, 136:995-1001, <https://doi.org/10.1007/s10973-018-7816-4>. (IF- 3.0)
5. **C. V. Prică**, B. V. Neamtu, T. F. Marinca, F. Popa, A. N. Sechel, O. Isnard & I. Chicinas (2019): Synthesis of Invar 36 type alloys from elemental and prealloyed powders by mechanical alloying, *Powder Metallurgy* **2019**, DOI: 10.1080/00325899.2019.1625509 (IF 1.4)
6. **C.V. Prică**, N.A. Sechel, B.V. Neamtu, T.F. Marinca, F. Popa, H. Chicinas, I. Chicinas (2021), Superalloy/Al₂O₃ type composite compacts obtained by spark plasma sintering from mechanically alloyed powders, *Science of Sintering*, **2022**, 54(3), pp. 335–347 (IF – 1.5)
7. **Calin-Virgiliu Prica**, Traian Florin Marinca, Bogdan Viorel Neamtu, Argentina Niculina Sechel, Florin Popa, Elekes Marton, Ionel Chicinas, Invar/WC composite compacts obtained by spark plasma sintering from mechanically alloyed powders, *Materials* **2022**, 15, 6714. <https://doi.org/10.3390/ma15196714> (IF - 3.7)

8. Traian Florin Marinca; Florin Popa; Bogdan Viorel Neamțu; **Virgiliu Călin Prică**; Ionel Chicinas, Permalloy/alumina soft magnetic composite compacts obtained by reaction of Al-permalloy with Fe₂O₃ nanoparticles upon spark plasma sintering, *Ceramics International*, Volume 49, Issue 2, 15 January **2023**, Pages 2272-2281 (IF - 5.1)
9. Loredana Cotojman; Traian Florin Marinca; Florin Popa; Bogdan Viorel Neamțu; **Virgiliu Călin Prică**; Ionel Chicinas, Producing Soft Magnetic Composites by Spark Plasma Sintering of Pseudo Core-Shell Ni-Fe Alloy@Mn_{0.5}Zn_{0.5}Fe₂O₄ Powders, *Materials* **2023**, 16(2), 501; <https://doi.org/10.3390/ma16020501> (IF - 3.7)
10. T.F. Marinca, L. Cotojman, B.V. Neamțu, F. Popa, **C.V. Prica**, R. Hirian, N.A. Sechel, I. Ciascai, I. Chicinas, Soft magnetic composite of Ni₃Fe/ZnFe₂O₄ type obtained by mechanical alloying/milling and spark plasma sintering, *Ceramics International*, 50(5), 1 **2024**, 7547-7557, (IF - 5.1)
11. **Prica, C.-V.**; Sechel, N.A.; Tamas, M.; Marinca, T.F.; Popa, F.; Orayev, N., Structural, Microstructural and Compositional Changes of the AISI 314 Steel Used in the Sintering Furnace Belt Depending on the Operating Time. *Materials* **2023**, 16, 7286. <https://doi.org/10.3390/ma16237286> (IF – 3.7)
12. Marinca, T.F.; Cotojman, L.; Popa, F.; Neamțu, B.V.; **Prică, C.-V.**; Chicinas, I. Pseudo-Core-Shell Permalloy (Supermalloy)@ZnFe₂O₄ Powders and Spark Plasma Sintered Compacts Based on Mechanically Alloyed Powders. *Materials* **2024**, 17, 4139. <https://doi.org/10.3390/ma17164139> (IF - 3.7)
13. **Prica, C.-V.**; Marinca, T.F.; Popa, F.; Sechel, A.N.; Neamțu, B.V.; Chicinas, H.F.; Chicinas, I. Cu-Al-Ni Nanocrystalline Compacts Obtained by Spark Plasma Sintering of Mechanically Alloyed Powders. *Materials* **2024**, 17, 4847, <https://doi.org/10.3390/ma17194847> (IF - 3.7)

Articole publicate la conferințe indexate în baze de date internaționale de referință în domeniul Ingineriei Materialelor (SCOPUS)¹

1. I. Chicinas, V. Pop, F. Popa, **C.V. Prica**, T. F. Marinca, B. V. Neamtu, L. A. Sorcoi, Formation of the Hipernik Alloy by Mechanical Alloying, *Materials Science Forum* Vol. 672 (2011) pp 68-7, Trans Tech Publications, Switzerland, ISBN 978-3-03785-010-7.
2. M. Bodea, R. Muresan, **C.V. Prica**, Modeling of droplet dynamic and thermal behavior during gas atomization process, *Materials Science Forum* Vol. 672 (2011) pp 80-83, Trans Tech Publications, Switzerland, ISBN 978-3-03785-010-7.
3. T. F. Marinca, I. Chicinas, **C. V. Prica**, F. Popa, Nickel Ferrite Powder Obtained by High Energy Reactive Ball Milling, *Materials Science Forum* Vol. 672 (2011) pp 145-148, Trans Tech Publications, Switzerland, ISBN 978-3-03785-010-7.
4. T. F. Marinca, I. Chicinas, **C. V. Prica**, F. Popa, B. V. Neamtu, Zinc Ferrite Powder Synthesized by High Energy Reactive Ball Milling, *Materials Science Forum* Vol. 672 (2011) pp 149-152, Trans Tech Publications, Switzerland, ISBN 978-3-03785-010-7.

5. **C. V. Prica**, T. F. Marinca, F. Popa, I. Chicinas, Ni₃Fe Mechanically Alloyed: “Shock Mode” versus “Friction Mode”, Materials Science Forum Vol. 672 (2011) pp 153-156, Trans Tech Publications, Switzerland, ISBN 978-3-03785-010-7.
6. I. Chicinas, V. Pop, F. Popa, **C.V. Prica**, T. F. Marinca, B. V. Neamtu, L. A. Sorcoi, Synthesis of the Mümmetal Magnetic Powders by Mechanical Alloying, Materials Science Forum Vol. 672 (2011) pp 157-160, Trans Tech Publications, Switzerland, ISBN 978-3-03785-010-7.
7. I. Chicinas, P. Carlan, F. Popa, **C.V. Prica**, L. A. Sorcoi, Obtaining of the Ir-Al Nanocrystalline Powders by Mechanical Alloying, Materials Science Forum Vol. 672 (2011) pp 171-174, Trans Tech Publications, Switzerland, ISBN 978-3-03785-010-7.
8. Chicinaş, I., Isnard, O., Chiriac, H., Popa, F., Pop, V., **Prică, C.V.**, Neamţu, B.V., Marinca, T.F., Magnetic and thermomagnetic studies of the formation of the Rhometal powders by high energy mechanical milling, Journal of Physics: Conference Series, Volume 303, Issue 1, 2011
9. Vasile Florin Tarţa, Ionel Chicinaş, Traian Florin Marinca, Bogdan Viorel Neamţu, Florin Popa, **Calin Virgiliu Prica**, Synthesis of the Nanocrystalline/Nanosized NiFe₂O₄ Powder by Ceramic Method and Mechanical Milling, Advanced Materials and Structures IV, p.27, 2012, Trans Tech Publications.
10. **Călin Virgiliu Prică**, Cristina Daniela Stanciu, Florin Popa, Ionel Chicinaş, The Influence of Milling Conditions on the Ni₃Fe Alloyed Powder, Advanced Engineering Forum (Volume 13), p.75-82, 2015.
11. Marinca, T., Chicinaş, I. , Popa, F., **Prică, C.V.**, Isnard, O., Sorcoi, A., High energy mechanical milling synthesis of NiFe₂O₄/Supermalloy nanocomposite powders, Proceedings of the World Powder Metallurgy Congress and Exhibition, World PM 2010, Volume 5, 2010.
12. Marinca, T., Chicinaş, I. , Popa, F., **Prică, C.V.**, Isnard, O., Sorcoi, A., Synthesis of ZnFe₂O₄/α-Fe nanocomposite powders by high energy mechanical milling, Proceedings of the World Powder Metallurgy Congress and Exhibition, World PM 2010, Volume 5, 2010.
13. Popa, F., Voicu, C., **Prică, C.V.**, Chicinaş, I., Influence of the filling factor on the obtaining of the Ni₃Fe intermetallic compound by mechanical alloying, Proceedings of the World Powder Metallurgy Congress and Exhibition, World PM 2010, Volume 1, 2010.

Lucrări publicate în ultimii în reviste şi volume de conferinţe cu referenţi
(neindexate)

Reviste

1. Bodea, M, Sechel A. N., **Prica C.V.**, Cercetări privind rafinarea microstructurii la sudarea MAG a oţelurilor structurale, p. 110-121, **Sudura**, 2016.

2. Bodea, M, Sechel A. N., **Prica C.V.**, Analiza influenței constituienților microstructurali asupra caracteristicilor de rezistență mecanică ale îmbinărilor sudate, realizate din oțeluri structurale, p. 122-131, **Sudura**, 2016.
3. **Prica C.V.**, Bodea, M, Neamtu, B. V., Sechel A. N., Utilizarea analizei prin difracții cu raze X la determinarea stării de tensiuni din îmbinările sudate, p. 132-138, **Sudura**, 2016
4. **Prica C.V.**, Bodea, M, Neamtu, B. V., Sechel A. N., Synthesis and welding of spark plasma sintered compacts obtained from Invar36 mechanically alloyed powders, p. 12-16, **Sudura**, 2018
5. Bodea, M, Sechel A. N., **Prica C.V.**, New concepts regarding weldability in industry 4.0, p. 14-19, **Sudura**, 2018
6. M.Bodea, N.A. Sechel, **C.V Prică**, New tools for steels weldability model based on the risk assessment, Zavarivanje i zavarene konstrukcije, 4/2018, str. 149-158.
7. **Prică C. V.**, Arghir, G., 1998, *The Mechanical Alloying of Iron with Cooper*, Second International Conference on Materials and Manufacturing Technologies, 10 - 13 September 1998, Proceedings, Editor G.Arghir, UT Press, Cluj-Napoca, p. 609 – 612.
8. Prică, C. D., Arghir, G., **Prică, C. V.**, 2000, *Research About Some Ceramic Materials Used Like Support for Thermal Treatment with Microwaves*, Second International Conference on Powder Metallurgy, RoPM2000, Cluj-Napoca, 6 – 8 July, Proceedings, p. 129 – 133, ISBN 973 – 9471 – 50 – 1.
9. **Prică, C. V.**, Prică, C. D., Arghir, G., 2001, *On the Parameters of Fe and Cu Powder Subject to Mechanical Milling*, Matematicheskikh Modeli Fizicheskikh Protzesov i Ikh Svoistva, Taganrog, Russia, Proceedings, Editor T. M. Abramovich, p. 19 – 22, ISBN 5 – 87976 – 194 – 0.
10. Arghir, G., Băraian, M., Jumate, N., **Prică, C. V.**, 2001, *Low temperature X – Ray Diffraction of Lead Powder*, Matematicheskie Modeli Fizicheskikh Protzesov i Ikh Svoistva, Taganrog, Russia, Proceedings, Editor T. M. Abramovich, p. 23 – 26, ISBN 5 – 87976 – 194 – 0.
11. Arghir, G., Băraian, M., **Prică, C. V.**, Jumate, N., 2002, *X – Ray Diffraction at Low Temperatures of Lead Powder*, The 3-rd International Conference of Materials and Manufacturing Technologies, Cluj-Napoca, 12 – 14 Sept. Acta Technica Napocensis, Section : Machine Constructions, Materials, Vol. 45 II, p. 524 - 527, ISSN 1221 – 5872.
12. Arghir, G., Băraian, M., Jumate, N., **Prică, C. V.**, 2003, *On Lead Powder Low temperature X – Ray Diffraction*, International Conferences on Matematicheskikh Modeli Fizicheskikh Protzesov i Ikh Svoistva, Taganrog, Russia, 28 –29 Iunya, , Proceedings, Editor , T. M. Abramovich, p. 16 – 19, ISBN 5 – 87976 – 237 – 8 .
13. **Prică, C. V.**, Arghir, G., Prică, C. D., 2003, *Mechanical Alloying Effect on Solid Solubility Increasing in Fe – Cu System*, International Conference on Manufacturing Science and Education, Challenges of the European Integration, 6 – 7 November, Sibiu, Proceedings, 305 - 307, ISBN 973 – 651 – 700 – 4.

14. **Prica, C. V.**, Prica, C. D., Arghir, G., 2004, *Evoluția granulației pulberii Fe₈₀Cu₂₀ în timpul alierii mecanice*, Conferința AGIR, Sebeș, 2004, Știință și Inginerie, Editor: Mircea Bejan, vol. VI, Editura AGIR, București, 2004, p. 377-382, ISBN 973-8130-82-4; ISBN 973-8466-68-7.
15. Prica, C. D., Arghir, G., **Prica, C. V.**, 2004, *Nomogram of Miller Indices for Hexagonal Crystal System*, The 10-th International Conference on Mathematical Models of Physical Process, Taganrog, 2004, p. 24-31, ISBN 5-8796-321-8.
16. Arghir, G., Brândușan, L., **Prica, C. V.**, Prica, C. D., Petean, I., Mărginean, D. A., 2004, *On the Total Summed up Error on Indexing of the Body Centred Cubic Crystals*, The 9-th International Conference on Applied Mathematics and Computer Science, Cluj-Napoca, Acta Technica Napocensis, Series: Applied Mathematics and Mechanics, Nr. 47, Vol. III, Cluj-Napoca, 2004, p. 99-104, ISSN – 1221-5872.
17. Arghir, G., Brândușan, L., **Prică, C. V.**, Prica, C. D., Petean, I., Mărginean, D. A., 2004, *Asupra erorilor totale însumate de indexare la cristalele cubice cu volum centrat*, Zilele Academice Clujene, in Acta Tehnica Napocensis, Cluj Napoca, 2004, p. 105-112, ISSN-1224-9106.
18. **C. V. Prică**, G. Arghir, *Milling energy effect on solid solubility in Fe- Cu system*, The 11-th International Conference on Mathematical Models of Physical Process, vol. I, p. 11-14, Taganrog, 2005, ISBN 5-87976-3641-1.
19. **C.V. Prică**, G. Arghir, *Mechanical alloying of Fe₃₀Cu₇₀*, Advanced Materials Research, Vol. 23, p. 63-66, 2007, Trans Tech Publications, Switzerland, ISSN 1022-6680.
20. **C.V. Prică**, V. Căndea, C. Pavel, G. Arghir, *Research about Fe₃₀Cu₇₀ (wt. %) structures obtained by mechanical alloying*, Buletinul Institutului Politehnic din Iași, Tomul LIII (LVII), Fasc. 3, secția Știința și Ingineria Materialelor, 2007, p. 115-118.
21. C. Pavel, V. Căndea, C. Popa, **C.V. Prică**, *A study regarding the influence of copper amount on the mechanical properties of the sintered materials made from powders based iron*, Buletinul Institutului Politehnic din Iași, Tomul LIII (LVII), Fasc. 3, secția Știința și Ingineria Materialelor, 2007, p. 109-113.
22. V. Căndea, S. Lapusan, G. Arghir, I. Gligor, A. Popa, C. Pavel, **C.V. Prica**, *Research on the Processing of a Ni-Ti Base Shape Memory Alloy through Powder Metallurgy Technology*, Buletinul Institutului Politehnic din Iași, Tomul LIII (LVII), Fasc. 3, secția Știința și Ingineria Materialelor, 2007, p. 27-32. .
23. **C. V. Prica**, G. Arghir, V. Căndea, C. Pavel, *The Characterization of Fe₃₀Cu₇₀ Powder Obtained by Mechanical Alloying*, EUROMAT 2007, Nuremberg, Germany, 10-13 Sept. 2007 – poster session.
24. V. Căndea, G. Arghir, C. Popa, C. Pavel, **C.V. Prica**, I. Gligor, *High Energy Mechanically Alloying of Ni-Ti*, EUROMAT 2007, Nuremberg, Germany, 10-13 Sept. 2007 – poster session.
25. C. Pavel, V. Căndea, **C.V. Prica**, R. Muresan, *Research on the Influence of Cu Amount on the Mechanical Properties of the Sintered Materials*, EUROMAT 2007, Nuremberg, Germany, 10-13 Sept. 2007 – poster session.

26. R. Muresan, D. Salomie, **C.V. Prica**, Decreasing of the Wolfram Sintered Compacts Porosity throug Utilisation of the Wolfram Powder Mechanical Activated, Acta Technica Napocensis, Series: Machines Construction. Materials, vol. 50, 2007, p. 107-110.
27. **C.V. Prica**, G. Arghir, R. Muresan, On the Fe₃₀Cu₇₀ Mechanical Alloyed, Acta Technica Napocensis, Series: Machines Construction. Materials, vol. 50, 2007, p. 137-140.
28. **C.V. Prica**, R. Muresan, G. Arghir, M. Bodea, D. Salomie, The Characterization of Fe₃₀Cu₇₀ Powder Obtained by Mechanical Alloying, Proceeding of Fifth International Powder Metallurgy Congress, Ankara, 8-12 Oct. 2008, p. 1163-1168, ISBN 978-605-60606-0-1.
29. M. Bodea, R. Muresan, D. Salomie, **C.V. Prica**, Mathematical Analysis of the Powder Particles Shapes, Proceeding of Fifth International Powder Metallurgy Congress, Ankara, 7-10 Oct. 2008, p.1320-1328, ISBN 978-605-60606-0-1.
30. R. Muresan, V. Rus, M. Bodea, **C.V. Prica**, The microstructure change in the W-Ni-Fe system heavy alloys during liquid phase sintering, Proceedings of „New challenges in heat treatment and surface engineering”, 9-12 June 2009, Dubrovnik-Cavtat, Croatia, p. 261-266.

Data

21.10.2024

Semnătura

