



Europass Curriculum Vitae

Personal information

First name(s) / Surname(s) **CONSTANTIN, Ionut**
Address(es) Bucharest, Romania
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Nationality Romanian
Date of birth 26.02.1985
Gender Male

Work experience

Dates October 2008 onwards
Occupation or position held Scientific research assistant (October 2008- December 2012), Scientific researcher (December 2012- presently)
Main activities and responsibilities Research works
Name and address of employer National R&D Institute for Nonferrous and Rare Metals, Bucharest
Type of business or sector Research and development in nonferrous and rare metals

Education and training

Dates October 2009- February 2011
Title of qualification awarded Master of science
Principal subjects/occupational skills covered Materials science
Name and type of organisation providing education and training Faculty of Materials Science and Engineering, University „Politehnica” of Bucharest
Dates October 2004 – June 2009
Title of qualification awarded Graduate engineer
Principal subjects/occupational skills covered Economical engineering in materials science
Name and type of organisation providing education and training Faculty of Materials Science and Engineering, University „Politehnica” of Bucharest

Personal skills and competences

Mother tongue(s)

Specify mother tongue : Romanian

Other language(s)

Self-assessment

European level (*)

English

French

Spanish

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C2	Proficient User	C2	Proficient User	C2	Proficient user	C2	Proficient user	C2	Proficient user
B2	Independent user	B2	Independent user	B2	Independent user	B2	Independent user	B1	Independent user
B2	Independent user	B2	Independent user	B2	Independent user	B1	Independent user	B1	Independent user

(*) Common European Framework of Reference for Languages

Social skills and competences

Responsibility
Teamwork
Communication skills

Organizational skills and competences

Participation in several national scientific programmes
Research and planning skills

Technical skills and competences

Electrochemical processes in aqueous solutions
Thin film synthesis by electrochemical deposition
Composite materials synthesis by in-situ processes
Synthesis of high-entropy alloys by metallurgical and electrochemical processes

Computer skills and competences

Competent with most Microsoft Office programs

Additional information

Annexes

1. List of publications
2. List of national and international projects

LIST OF PUBLICATIONS

Articles:

Refereed Journals

1. Vasile Soare, Dumitru Mitrica, Viorel Badilita, **Ionut Constantin**, Mihai Tarcolea, Gabriela Popescu, „*Experimental models for processing of nanostructured aluminum master alloys*”, *Meturgia International*, vol. 16, nr. 4, 2011, 161-164, ISSN 1582-2214
2. V. Soare, M. Burada, D. Mitrica, **I. Constantin**, F. Stoiciu, C. Cotrut, A. M. Popescu „*Electroless deposition process of NiZnP thin films for anticorrosive applications*”, *Metallurgical and New Materials Researches*, vol. XIX, no. 2/2011, ISSN 1221-5503
3. Burada Marian, Mitrică Dumitru, **Constantin Ionuț**, Bădiliță Viorel, Minculescu Florin, Cotrut Cosmin, Constantin Virgil, „*Electrochemical process for Zn-Ni-P thin films deposition on steel substrate*”, *Metallurgical and New Materials Researches*, vol. XIX, no. 2/2011, ISSN 1221-5503
4. D. Mitrica V. Soare, M. Burada, V. Badilita, Victoria Soare, **I. Constantin**, P. Moldovan, G. Popescu, „*Melt spinning process for nanostructured AlSi master alloy obtaining*”, *Metallurgical and New Materials Researches*, vol. XIX, no. 2/2011, ISSN 1221-5503
5. Dumitru MITRICA, Vasile SOARE, Marian BURADA, **Ionut CONSTANTIN**, Viorel BADILITA, Mihai TARCOLEA, Veta GHENESCU, Stefan ANTOHE, Cristian Petrica LUNGU, „*Electrodeposition of CuInSe polycrystalline thin films for photovoltaic applications*”, *Metallurgical and New Materials Researches*, vol. XIX, no. 1 (2011), 27-37.
6. V. Soare, D. Mitrică, **I. Constantin**, M. Ghiță, G. Popescu, I. Carcea, I. Florea, „*High entropy alloy with enhanced mechanical properties*”, *Metallurgical and New Materials Researches*, vol. 31, iss. 1 (2013), 29-39.
7. V. Soare, M. Burada, **I. Constantin**, D. Dumitrescu, F. Stoiciu, V. Bădiliță, D. Mitrică, „*The influence of the process control agent and dispersoid on the mechanical alloying of the A5083 alloy*”, *Metallurgical and New Materials Researches*, vol. 21, no. 4 (2013), 31-41.
8. **I. Constantin**, „*Microstructural Characterization and Corrosion Behavior of Electroless Ni-Zn-P Thin Films*”, *Journal of Metallurgy*, vol. 2014 (2014), 1-7.
9. M. Burada, **I. Constantin**, V. Draguț, M. Ghiță, A. Caragea, F. Vijulie, „*Microstructure and characterization of an aluminum alloy with improved characteristics obtained by mechanical alloying*”, *Metallurgy and New Materials Researches*, vol. 22, no. 3 (2014), 23-30.
10. V. Soare, M. Burada, **I. Constantin**, M. Ghita, V. Constantin, F. Miculescu, A. M. Popescu, „*Synthesis and performance of Zn-Ni-P thin films*”, *Chinese Physics B*, vol. 24, no. 3 (2015), 036101-1 - 036101-10.
11. V. Soare, D. Mitrica, **I. Constantin**, G. Popescu, I. Csaki, M. Tarcolea, and I. Carcea, „*The Mechanical and Corrosion Behaviors of As-cast and Re-melted AlCrCuFeMnNi Multi-Component High-Entropy Alloy*”, *Metallurgical and Materials Transactions A*, vol. 46A (2015), 1468-1473.
12. V. Soare, D. Mitrica, **I. Constantin**, V. Badilita, F. Stoiciu, A. M. J. Popescu, I. Carcea, „*Influence of the re-melting on the microstructure, hardness and corrosion behaviour of the AlCoCrFeNiTi high-entropy alloy*”, *Materials Science And Technology*, vol. 31, no. 10 (2015), 1194-1200.
13. V. Soare, M. Burada, **I. Constantin**, D. Mitrică, V. Bădiliță, A. Caragea, M. Târcolea, „*Electrochemical deposition and microstructural characterization of AlCrFeMnNi and AlCrCuFeMnNi high entropy alloy thin films*”, *Applied Surface Science*, vol. 358 (2015), 533-539.
14. V. Soare, D. Dumitrescu, M. Burada, **I. Constantin**, V.I. Soare, P. Capota, A. M. J. Popescu, V. Constantin, „*Recovery of metals from waste electrical and electronic equipment (WEEE) by anodic dissolution*”, *Revista de Chimie*, 67, 5 (2016), 920.
15. **I. Constantin**, P. Moldovan, „*Microstructure and corrosion resistance of electrodeposited Zn-Ni-P thin films*”, *U.P.B. Scientific Bulletin Series B*, vol. 78, no. 1 (2016), 185-192.

Refereed proceedings

1. Mitrică Dumitru, Soare Vasile, Surcel Ioan, Gurgu Constantin, Burada Marian, **Constantin Ionuț**, „*In-situ process for composites synthesis in the Al-Si/SiCp system*”, National symposium with international participation „Chemistry priorities for sustainable development” (PRIOCHEM) – Vth Edition, ICECHIM-Bucharest, 29-30 October 2009, Sinaia, ISBN 978-973-0-06996-9.
2. M. Burada, V. Soare, M. Radu, D. Mitrică, **I. Constantin**, P.C. Lungu, V. Ghenescu, S. Antohe, „*CuInSe₂ thin films electrodeposition for photovoltaic applications*”, National symposium with international participation „Chemistry priorities for sustainable development” (PRIOCHEM) – Vth Edition, ICECHIM-Bucharest, 29-30 October 2009, Sinaia, ISBN 978-973-0-06996-9.
3. Dumitru MITRICA, Dr. Vasile SOARE, Ioan SURCEL, Mircea RADU, Marian BURADA, **Ionut CONSTANTIN** „*Modeling of metal matrix composite synthesis from Al alloys/nitrides system*”, Workshop Materiale Funcționale, 01-02 Iulie 2009, București, Romania.
4. Vasile SOARE, Dumitru MITRICA, Viorel BADILITA, **Ionut CONSTANTIN**, Mihai TARCOLEA, Gabriela POPESCU, „*Experimental models for processing of nanostructured aluminum master alloys*”, 7th International Conference on Materials Science and Engineering-BRAMAT (2011).
5. Marian Burada, Vasile Soare, **Ionut Constantin**, Florin Minculescu, Ana Maria Popescu, Ioan Carcea, „*Electroless Zn-Ni-P alloys deposition on steel from a chloride bath*”, The Eighth International Congress in Materials Science and Engineering ISSIM, 26-29 May 2011, Iași, Romania.
6. **Ionut Constantin**, Marian Burada, Dumitru Mitrica, „*Electrodeposition of Zn-Ni-P alloys on steel parts from a sulfate bath*”, The XXXInd National Conference of Chemistry, 03-05 October 2012, Căciulata, Romania.
7. Mitrica Dumitru, Soare Vasile, **Constantin Ionuț**, Stoiciu Florentin, Popescu Gabriela, „*Microstructural characterization of AlSi7Mg/AlN and AlSiMg/SiC composites obtained by reactive gas injection method*”, 4th International Conference Advanced Composite Materials Engineering COMAT, 18-20 October 2012, Brasov, Romania.
8. D. V. Dumitrescu, V. Soare, **I. Constantin**, „*Modern process for obtaining nanostructured ZnO*”, 9th National symposium with international participation „Environment & Progress”, 25 October 2013, Cluj-Napoca, Romania.

9. **I. Constantin**, P. Moldovan, „*Anticorrosive Zn-Ni-P coatings electrodeposited on steel parts from sulfate baths*”, 12th Young researchers' Conference - Materials Science and Engineering, 11-13 December 2013, Belgrade, Serbia.
10. V. Soare, M. Burada, D. Mitrică, **I. Constantin**, D. V. Dumitrescu, „*Investigation of Al-5083 alloy obtained by mechanical alloying*”, 12th Young researchers' Conference - Materials Science and Engineering, 11-13 December 2013, Belgrade, Serbia.
11. V. Soare, D. Mitrică, **I. Constantin**, G. Popescu, I. Csaki, M. Tarcolea, I. Carcea, „*AlMnCrCuFeNi multicomponent alloy with superior hardness and corrosion resistance*”, TMS 143rd Annual meeting & exhibition, 16-20 February 2014, San Diego, USA.
12. **I. Constantin**, V. Soare, M. Burada, D. Mitrica, D. Dumitrescu, P. Moldovan, A. M. Popescu, „*Double layer multifunctional Zn-Ni-P coatings for anticorrosive applications*”, TMS 143rd Annual meeting & exhibition, 16-20 February 2014, San Diego, USA.
13. D. V. Dumitrescu, V. Soare, **I. Constantin**, M. Burada, D. Mitrică, „*Microwave field melting of non-ferrous metallic wastes*”, 10th ELSEDDIMA International Conference, , 18-19 September 2014, Cluj-Napoca, Romania.
14. V. Soare, M. Burada, **I. Constantin**, D. Mitrică, V. Bădilă, A. Caragea, M. Târcolea, „*Electrochemical deposition and microstructural characterization of AlCrFeMnNi and AlCrCuFeMnNi high entropy alloy thin films*”, 9th International Conference on Materials Science and Engineering – BRAMAT 2015, 5 – 7 March 2015, Brasov, Romania.
15. V. Soare, D. V. Dumitrescu, M. Burada, **I. Constantin**, V. I. Soare, P. Capotă, „*Study of Metals Recovery from WEEE by Anodic Dissolution*”, 9th International Conference on Materials Science and Engineering – BRAMAT 2015, 5 – 7 March 2015, Brasov, Romania.
16. D. Mitrica, V. Soare, **I. Constantin**, G. Popescu, V. Badilita, F. Stoiciu, A. M. J. Popescu, „*Improvement of the Mechanical and Corrosion Resistance Characteristics of AlCrFeMnNi High Entropy Alloy by the Annealing Process*”, The 19th Romanian International Conference on Chemistry and Chemical Engineering – RICCCCE 19, 02-05 September 2015, Sibiu, Romania.
17. M. Burada, V. Soare, D. V. Dumitrescu, **I. Constantin**, M. T. Olaru, V. Badilita, V. Soare, P. Capota, „*Separation of Precious Metals from WEEE by Acid Solubilization and Thiourea Extraction*”, The 19th Romanian International Conference on Chemistry and Chemical Engineering – RICCCCE 19, 02-05 Septembrie 2015, Sibiu, Romania.
18. P. Capota, **I. Constantin**, M. T. Olaru, „*The direct analysis of solid samples without dissolution, by ICP-OES*”, The 11th edition of the International Symposium “Priorities of Chemistry for a Sustainable Development”- PRIOCHEM, 29-30 October 2015, Bucharest, Romania.
19. E. A. Neagu, **I. Constantin**, „*Assessment of the concentration of Ag, Au and Cu from colloidal suspensions and powders for sterile bandages by the FAAS method*”, The 11th edition of the International Symposium “Priorities of Chemistry for a Sustainable Development”- PRIOCHEM, 29-30 October 2015, Bucharest, Romania.
20. V. Soare, M. Burada, D. V. Dumitrescu, **I. Constantin**, V. Soare, A. M. J. Popescu, I. Carcea, „*Innovative approach for the valorization of useful metals from waste electric and electronic equipment (WEEE)*”, ModTech 2016 International Conference – Modern Technologies in Industrial Engineering”, 15-18 June 2016, Iasi, Romania.

Patents and applications

1. V. Soare, M. Burada, D. Mitrica, **I. Constantin**, P. C. Lungu, C. Porosnicu, S. Antohe, L. Ion, V. Ghenescu, M. Ghenescu, „*Electrochemical process for obtaining CIS thin films for photovoltaic applications*”, Patent application A201001036.
2. D. Mitrica, V. Soare, **I. Constantin**, M. Burada, „*In-situ method and experimental installation for obtaining AL-Si/AlN composite materials*”, Patent application A201100385.
3. V. Soare, M. Burada, **I. Constantin**, „*Electrochemical process for obtaining double layered Ni- Zn- P thin films for anticorrosive applications*”, Patent application nr. A201101259.
4. V. Soare, D. Mitrica, **I. Constantin**, G. Popescu, C. Roman, „*Process for obtaining aluminum alloys with enhanced mechanical characteristics by microalloying with nanostructured master alloys*”, Patent application A201101359.
5. D. Mitrica, V. Soare, **I. Constantin**, M. Burada, M. Ghită, „*Process and experimental installation for obtaining porous aluminum alloys with low specific weight*”, Patent application A201200809.
6. C. Apostol, V. Soare, M. Burada, D. V. Dumitrescu, D. Mitrică, **I. Constantin**, „*Process for silver recovery from used etching solutions*”, Patent application A201400293.
7. M. Burada, V. Soare, D. Mitrică, **I. Constantin**, A. Caragea, D. V. Dumitrescu, „*Process for obtaining an aluminum alloy by mechanical alloying and plastic deformation*”, Patent application A201400433.

ANNEX 2

LIST OF NATIONAL AND INTERNATIONAL PROJECTS

NATIONAL PROJECTS:

Programme/Project	Position	Period
Programme PNCDI2, Contract 71-134 „New types of flexible solar cells based on CIS compounds obtained through electro-deposition”	Researcher	2007-2010
Programme PNCDI2, Contract 71-058 “New methods for metal matrix composite materials synthesis by in-situ processes”	Researcher	2007-2010
Programme PNCDI2, Contract 72-205 “Nanostructured aluminum alloys with high physical-mechanical characteristics”	Researcher	2008-2011

Programme PNCDI2, Contract 72-221 „ New method for the protection of steel materials against corrosion by electro-deposition of Zn-Ni-P ternary alloys thin films”	Researcher	2008-2011
PN 09240204 „Research regarding the obtaining of metal matrix composites in the AlSi-nitrides system for applications in the automotive industry”	Researcher	2010-2012
PN 09240102 „ Research regarding the obtaining of ultra light Al based alloys by mechanical alloying”	Researcher	2010-2014
PN 09240105 „Ecological technology for obtaining aluminum alloys with high properties and low specific weight for industrial applications”	Researcher	2010-2013
PN-II-IN-CI-2012-1, CI 168/2012 “New method for obtaining nanostructured ZnO in microwave field”	Researcher	2012-2013
PN-II-IN-CI-2013-1, CI 191/2013 „Innovative melting of nonferrous metals in microwave field”	Researcher	2013-2014
PN-II-IN-CI-2013-1, CI 190/2013 ”Innovative method for the recovery of silver from etching solutions”	Researcher	2013-2014
Programme PNCDI2, Contract 270/2014 “New high entropy alloys/composites with superior mechanical and corrosion resistance characteristics, for high temperature uses”	Researcher	2014-
PN 09240110 “High-entropy alloys with superior mechanical characteristics and corrosion resistance for high-temperature applications”	Principal investigator	2014-
Programme PNCDI2, Contract 82/2014 “Innovative and ecological technology for the recovery of nonferrous metals from electrical and electronic equipment wastes (WEEE) using microwaves energy”	Researcher	2014-
PN 09240113 „Studies and researches for the obtaining of new semiconductor materials for applications in renewable energy”	Researcher	2015-
PN 16200304 “High entropy alloys for applications in energy industry”	Researcher	2016-2017
PN 16200202 “Advanced metallic materials with elevated thermoelectric properties”	Researcher	2016-2017