

Europass Curriculum Vitae



Personal information

First name(s) / Surname(s) **Geta CĂRĂC**
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 800008, Galati, ROMANIA
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Fax(es) + 40 236 461 353
E-mail getac@ugal.ro, getacc_2000@yahoo.com
Nationality Romanian
Date of birth 03.02.1957

Desired employment **Dunarea de Jos University of Galati://www.ugal.ro**
Occupational field **Analytical Chemistry, Applied Electrochemistry, Material Science**

Work experience

Dates Occupation or position held Main activities and responsibilities Name and address of employer Type of business or sector	1990- present Full Professor Associate Professor Lecturer Assistant Professor Teaching and research activities in fields: applied electrochemistry: micro – nanostructured advanced materials, composite coatings, metal matrix, oxides, micro and nanoparticles; analytical chemistry (conventional and nonconventional methods); food: chemistry and biological analysis; environmental: water, waste. "Dunarea de Jos" University of Galati, Domneasca 47, 800008 Higher Education Establishments
Dates Occupation or position held Name and address of employer Type of business or sector	1981-1984; 1986-1990 trainee chemist, laboratory chief (1981-1984); Chief Technical Quality Control office(1986-1990) Braila, Artificial Fibers and Papers Plant (name S.C. Dunacor S.A. Braila after 1990) chemistry industry
Dates Occupation or position held Name and address of employer Type of business or sector	1980-1981; 1984-1986 Chemistry Teacher Informatics Lyceum, Iasi; N. Iorga, College, Braila. High School

Education and training

from 1990-present 2007-present 2000-2007 1992-2000 2000-2002 1990-2000	employment at the Department of Chemistry, Physics and Environment (Faculty of Sciences and Environment) „Dunarea de Jos” University of Galati; Romania (http://www.ugal.ro) Full Professor Associate Professor Assistant Professor (Lecturer) Associate Professor Ph. D. student
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December 1999- March 1992 Ph. D in Material Sciences, „Dunarea de Jos” University of Galati, RO
 June 1981- September 1976 Licentiate in Chemistry, Iasi, RO
 June 1976 - September 1972 Diploma of School leaving examination, “Spiru Haret”, College, Tecuci, RO

Title of qualification awarded

- **Ph.D in Material Science**
- Qualification (advanced study) in Physical-Chemistry
- Licentiate in Chemistry
- Diploma of school-leaving examination

Principal subjects/occupational skills covered *Chemical and electrochemical deposition in metallic systems* (metals, alloys, composites): codeposition with oxides particles: effects of the particles size (micro and nanodimensions); structural aspects (SEM, AFM), material functional characteristics and mechanical properties; *electrochemical processes of codeposition* with ceramic particles in metallic matrix and alloys to obtain composite layers; surfaces-interface chemistry; electrochemical corrosion, biocorrosion, studies of organic compounds using UV-VIS, IR, RMN, HPLC/MS; CV, food chemistry analysis; waste and water analysis.

Name and type of organisation providing education and training

1992-1999: Romania, “Dunarea de Jos” University of Galati: **Ph D Thesis in Material Science**

1980 – 1981 – Romania, The Polytechnic Institute, Iasi, Faculty of Chemistry and Chemical Technology, Physical-Chemistry.

1980 –1985 – Romania, The Polytechnic Institute, Iasi, Faculty of Chemistry and Chemical Technology, Chemistry.

Personal skills and competences

2006-2009 Coordinator of **WG2 (EU), COST Action D33** project - *Chemistry, Nanoscale Electrochemical and Bio-processes (Corrosion) at Solid-aqueous Interfaces*

2008-present Scientific Representing of S.C. SETCAR.S.A. Braila, www.setcar-braila.ro

2005-2007 Manager European Excellence Centre for the Environment (Qualification PHARE RO 9706.01.02, www.ecee.ugal.ro)

2007-2010 Technical Manager: Competences Center: Interfaces-Tribocorrosion and Electrochemical Systems (CC-ITES), Senate decision 608/20.03.2007, www.cc-ites.ugal.ro.

2002-2009 Participation in Management Committee (MC) in COST Projects (ESF)

from 2005 Associate Collaborator at the S.C. SETCAR.S.A. Braila (major field: environmental www.setcar-braila.ro/)

knowledge of Windows, Microsoft Office, Chemwind, ChemDraw, Isis Draw and Internet navigation

Other language(s)

Self-assessment	Understanding				Speaking				Writing	
	Listening		Reading		Spoken interaction		Spoken production			
European level (*)										
Language	En	B2	En	B2	En	B2	En	B2	En	B2
Language	R	B1	R	B2	R	B1	R	B1	R	B1

Other skills and competences

2002-Present Good experience on grants management:
European Commission. R D – General Expert EU (EX2002B015093), 2013 -FP7-PEOPLE; FP7-NMP-2013; 2012-FP7-NMP-2013-SME-7; 2009- FP7-NMP-ENV; 2004 - FP6-CRAFT.

2005 – present INTAS Independent Expert ID5730.

2004 – present CNCSIS and CEEEX (Romanian National University Research Council) Scientific Project Evaluator (included in the National Register of [Experts](http://www.mct-excelenta.ro/fileadmin/mct/Experti_2006/BAZA_EXPERTI_CEEEX_2005_literele_A_C.html) http://www.mct-excelenta.ro/fileadmin/mct/Experti_2006/BAZA_EXPERTI_CEEEX_2005_literele_A_C.html)

2001-2009 Participations on COST Actions: COST Action 520: Biofouling and Materials; COST Action 521: Corrosion of steel in reinforced structures, COST Action D19 Chemical functionality specific to the nanometric scale, COST Action D33: :Nanoscale Electrochemical and Bio-processes(corrosion) at Solid Aqueous Interface of Industrial Materials, COST Action 533: Materials for improved Wear Resistance of Total Artificial Joints

2002-2009 Programme committee expert: COST Management Committee (MC): COST Actions: 2006-2009 in COST D33 –COSTAction 533; 2006-2009 Action 533 - 2004-2006 in Action D19-

from 2006 Scientific referents:
 Corrosion Science, Surface and Coatings Technology; International Biodeterioration &Biodegradation; Journal of Applied Electrochemistry; Corrosion in Science; Materials Chemistry and Physics, Journal of Alloy and Compounds; Electrochemica Acta Portugal; Arabian Journal of Chemistry; Bulgarian Chemical Communications; ZPC, Open Corrosion Journal; Foods Additivites & Contaminats, Parlar Scientific

2002-2004	Research Director of International Collaborative Project with Germany: COPBIL RO 014
2004-2006	Peer Review -PhD thesis from India (6 thesis)
June 2003	
June 2004	Summer School, Grant NATO with Tufts University (USA); "The Keys to Rapid and Cost Effective Hazardous Waste Site, Investigation and Cleanup", Galati-Romania, certification.
2011, 2008, 2005	NATO program: "Conservation and Sustainable Development of River Mouth Ecosystems, Wetlands and Lagoons", Galati-Romania, certification
2004-2009	Member Scientific conferences: Chemistry Colloids and Surfaces, International Symposium Galati-RO
	Member of Faculty of Science Council
	Team work skills.
Competences in	<ul style="list-style-type: none"> ▪ analytical, electrochemical and structural analysis of compounds, new materials; characterisation of advanced materials; nanostructures, nanocomposites, nanowires etc.; surfaces-interface chemistry; electrochemical corrosion, biocorrosion, studies of organic compounds using e.g. UV-VIS, IR, RMN, HPLC/MS; CV, food chemistry analysis; waste and water analysis. ▪ applied electrochemistry: material functional characteristics and mechanical properties; electrochemical processes of codeposition with ceramic particles in metallic matrix and alloys to obtain composite layers; micro – nanostructured advanced materials, composite coatings, metal matrix, oxides, micro and nanoparticles; analytical chemistry (conventional and nonconventional methods). ▪ chemical and electrochemical deposition (and another modern techniques) in metallic systems (metals, alloys, composites): codeposition with different dispersed phases (e.g. oxides particles, carbides, polymers): effects of the particles size (micro and nanodimensions); structural (by e.g. SEM, AFM, TEM) and mechanical characterisation (e.g. roughness, hardness).
Membership	<ul style="list-style-type: none"> - Member at the Electrochemistry International Society (from 2000– present); - Member al Romanian Society of Chemistry (from 1998- present); - Member of "European Centre of Excellence for the Environment" of „Dunarea de Jos” University of Galati, - Member of the Romanian Society of Biotechnology and Bioengineering (RSBB), which is affiliated to the European Federation of Biotechnology (EFB) (from 2008-present).
Fellowships/grants	
1992 -1999	Ph. D Thesis on Materials Science: <i>Physical-Chemistry Study of the Some Composite Coatings with Lanthanide Oxides.</i>
1994: 3 months	Scholarship at Sophia Kliment Ohridski University, Faculty of Chemistry, Bulgaria
1998: 2 months	Tempus scholarship, mobility in education to Dresden Technical University, Germany
20 th July- 19 th Aug 2004	STSM in COST D19 (D19/009/03), subproject in Working Group 13.:Host's Name and Institution: P. Bonora, Universita di Trento, Italy.
18 th -29 th Feb. 2008	COST D33: ONLINE_STSM-D33-2446, Host's Name and Institution: A. Ramanavicius, Vilnius University, Lithuania
18 th -22 th Feb. 2008	Lecturer invited in "Synthesis of Nanomaterials" at International Nanotechnology School on "Nanostructured Materials for Biosensors and Medicine", Vilnius, Lithuania.
Additional information	<p>Prof. Dr. Andreas Bund Technische Universität Ilmenau Fakultät für Elektrotechnik und Informationstechnik, Institut für Werkstofftechnik Fachgebiet Elektrochemie und Galvanotechnik II Gustav-Kirchhoff-Straße 6 (Arrheniusbau), 98693 Ilmenau Tel.: +49 3677 69 3107, Fax: +49 3677 69 3104 e-mail: andreas.bund@tu-ilmenau.de</p> <p>Prof. Dr. Thomas Lampke Chemnitz University of Technology, Germany Institute of Composite Materials and Surface Technology, Department of Composite Materials , Erfenschaleger Straße 73, 09125, Chemnitz, Germany Fax: + 39 371 531 6179. e-mail: thomas.lampke@wsk.tu-chemnitz.de</p> <p>Prof. Dr. Lidia Benea Competences Center: Interfaces-Tribocorrosion and Electrochemical Systems (CC-ITES). Faculty of Metallurgy and Materials Science. Dunarea de Jos University of Galati, Domneasca Street no 47, 800008 Galati- Romania Tel: +40 744 21627; e-mail: Lidia.Benea@ugal.ro</p>
Annexes	List of papers

ANEXES
LIST OF PUBLISHED AND ELABORATED SCIENTIFIC CONTRIBUTIONS

A. PUBLISHED PAPERS

1. ISI published papers

- Stefan C.S., Dinica R., Anouti M., **Cârâc G.**
Pyrrolidinium Octanoate Carboxylate as PIL Agent in the Growth Mechanism of Lysozyme Spherulites
Romanian Biotechnological Letters, 2013, vol. 18 (3), 8233-8244.
<http://www.rombio.eu/vol18nr3/2%20Simona%20Stefan.pdf>
- Cojocar P., Orac L., **Cârâc G.**
Electrodeposition parameters dependence of microstructure and roughness of Cu - Mo composite coatings
Zeitschrift für Physikalische Chemie, 2013, vol 227(8), 1059-1069, DOI: [10.1524/zpch.2013.0354](https://doi.org/10.1524/zpch.2013.0354),
<http://www.degruyter.com/view/j/zpch.2013.227.issue-8/zpch.2013.0354/zpch.2013.0354.xml>
- Cârâc G.**, Ispas A.
Effect of nano-Al₂O₃ particles and of the Co concentration on the corrosion behaviour of electrodeposited Ni-Co alloys
Journal of Solid State Electrochemistry, 2012, 16(11), 3457-3465,
<http://link.springer.com/article/10.1007%2Fs10008-012-1909-y>
- Rusu (Cosor) D. E., Ispas A., Bund A., Gheorghies C., **Cârâc G.**
Corrosion Tests of Nickel Coatings Prepared from a Watts-Type Bath
Journal of Coatings Technology and Research, 2012, 9(1), 87-95, DOI: 10.1007/s11998-011-9343-0,
<http://www.springerlink.com/content/q05750887t246180/>
- Ramanaviciene A., Minkstimiene A. K., Oztekin Y., **Cârâc G.**, Voronic J., German N., Ramanavicius A.
Visualization of red-ox proteins on the gold surface using enzymatic polypyrrole formation,
Microchimica Acta, 2011, 175:79-86. DOI 10.1007/s00604-011-0645-9.
http://journals2.scholarsportal.info/details.xqy?uri=/00263672/v175i1-2/79_vorpotgsuepf.xml
- Mikoliunaite L., Makaraviciute A., Suchodolskis, A., Ramanaviciene A., Oztekin Y., Stirke, A., Jurkaite G., Ukanis M., **Cârâc G.**, Cojocar P. Ramanavicius A.
Atomic Force Microscopy Study of Living Baker's Yeast Cells
Advanced Science Letters, 2011, vol. 4, 368-376
http://www.researchgate.net/publication/232715807_Atomic_Force_Microscopy_Study_of_Living_Baker's_Yeast_Cells
- Cantaragiu A. M., Cojocar P., **Cârâc G.**, Gheorghies C., Magagnin L.
Electrocodeposition of Ag/TiO₂ nanocomposite coatings in cyanide free electrolytes
Transactions of the Institute of Metal Finishing, 2011, vol. 89(1) 39-43
<http://www.ingentaconnect.com/content/maney/imf/2011/00000089/00000001>
- Hagioglu P., Gheorghies C., **Cârâc G.**
Accelerated corrosion behavior of Cu-Zn tombac used in production of patrimony goods
Environmental Engineering and Management Journal, 2011, 10(2)199-203. <http://omicron.ch.tuiasi.ro/EEMJ/>
- Cojocar P., Leserria, A., Magagnina L., Vázquez M., **Cârâc G.**
Electrodeposition of Ni/Co and Ni Magnetic Nanowires using Alumina Template
ECS Transactions, 2011, 33 (34)43-49 (The 217th ECS Meeting ECS, Las Vegas, NV, October 4, 2010)
http://ecst.ecsdl.org/cgi/collection/electrochemical_chemical_deposition-etching?page=6
- Cantaragiu A.-M., **Cârâc G.**, Gheorghies C.
Electrochemical study of AISI 316L Stainless Steel in different nanoparticle suspensions
Journal of Optoelectronics and Advanced Materials 2010, 12(11) 2391 – 2399
- Rusu, D. E., Cojocar, P., Magagnin, L., Gheorghies, C., **Cârâc, G.**
Study of Ni-TiO₂ nanocomposite coating prepared by electrochemical deposition
Journal of Optoelectronics and Advanced Materials 2010, 12(11) 2419 – 2422
- Stoica M., Bruma M., **Cârâc G***.
Electrochemical study of AISI 304 SS at disinfectants with fungi
Materials and Corrosion, 61(9999), 12, 2010, 1017-1025, ISSN: 0947-5117.
<http://onlinelibrary.wiley.com/doi/10.1002/maco.v61.12/issuetoc#jumpTo>
- Cantaragiu, A.M., Cojocar, P., Magagnin, L., **Cârâc, G.**, Gheorghies, C.
Electrophoretic synthesis and characterization of bioactive HAp/TiO₂ thin films coated on stainless steel
Journal of Optoelectronics and Advanced Materials 2010, 12 (4) 913-918, INOE Publishing House, ISSN: 1454-4164.
- Stoica, M., Cârâc, G., Apetrei, C., Cantaragiu, A.-M.
Electrochemical study of stainless steel surfaces in biodegradable biocides
Journal of Optoelectronics and Advanced Materials 2010, 12 (4)919-922, INOE Publishing House, ISSN: 1454-4164
- Rusu D. E., Ispas A., Bund A., Gheorghies C., **Cârâc G.**
Microstructure and corrosion resistance for the electrodeposited nickel from watts baths
Journal of Optoelectronics and Advanced Materials 2010, 12(6)1372 – 1377, INOE Publishing House, ISSN: 1454-4164
- Stoica M., **Cârâc, G.**, Nicolau A., Tofan C.

The importance of finishing for the integrity of Stainless Steel surfaces during sanitation treatments
Journal of Environmental Protection and Ecology, vol. 11 (2010). ISSN: 1311-5065.

Bruma M., Stoica M., **Cârâc G.**, Alexe P.

AISI 430 stainless steel behaviour at different disinfectants
Romanian Journal of Food Science, 2010, 1(1) 39-44.

Cojocaru P., Muscolino F., Magagnin L., Vázquez M. Badini-Confalonier G., **Cârâc G.**
Electrodeposition of Ni/Co and Ni Magnetic Nanowires using Alumina Template
The 216th ECS Meeting ECS, Vienna, Austria, October 4 - October 9, 2009
ECS Transactions, 2010, 25 (27) 147-153, CODEN: ECSTF8, ISSN-1938-5862 (print),
http://www.ecsdl.org/new_ECST

Thiemig D., Cantaragiu A.M., Schachschal S., Bund, A., Pich A., **Cârâc G.**, Gheorghies C.
Electrocodeposition of hydroxyapatite nanoparticles with zinc-iron alloys
Surface & Coatings Technology 2009, 203 (10-11)1488-1493
<http://www.sciencedirect.com/science/article/pii/S0257897208010566>

Stoica M., **Cârâc G.**, Tofan C., Constantin O. E., Enache G.
Effect of fungal suspensions in NaDCC disinfectant on the corrosion behaviour AISI 304 stainless steel
Journal of Agroalimentary Processes and Technologies, 15 (4), 2009, p. 543-546, 4 pg. Ed. Agroprint, ISSN 1453-1399.
BDI Index: IFIS – International Food Information Service (www.Foodsciencecentral.com); CAS – Chemical Abstracts Service
(www.cas.org; CAS ref: 163659); CABI – Publishing Website Serials Cited Submission (www.cabi.org)

Iticescu, C., Murarescu, M., **Cârâc, G.**
Influence of Nd2O3 in Copper and Copper Composite Coatings obtained by Electroless Plating
Anale Universitatea Bucuresti, Chimie 2009; 18(1):51-57
http://gw-chimie.math.unibuc.ro/anunivch/analele_univ_chimie.html CAPLUS coverage by CASCODEN: ANUBEU

Gheorghies C., Hui D., **Cârâc G.**, Stasi I. V.
Doping Effect on Texture Degree of a Composite Layer
World Journal of Engineering, 2008, 5(4), 620-621

Iticescu, C., Mitoseriu, O., **Cârâc, G.**, Lampke, Th.
Electrochemical deposition of composite coatings in copper matrix with TiO2 nanoparticles
Revue Roumaine de Chimie, 2008, 53(1) 43–47

Cârâc, G., Iticescu C., Benea, L., Lampke, Th., Steinhauser S.
The effect of nano-Al2O3 dispersed phase in nickel matrix electrocodeposited
Revue Roumaine de Chimie, 2007, 52(11)1057–1062
http://revroum.getion.ro/wp-content/uploads/2007/RRCh_11_2007/Art%2007.pdf

Cârâc G., Bund, A., Thiemig D.
Electrocodeposition and characterization of cobalt lanthanide oxides composite coatings
Surface & Coatings Technology, 2007, 202 (2), 403-411
<http://www.sciencedirect.com/science/article/pii/S0257897207006202>

Gheorghies, C., **Cârâc, G.**, Stasi I.V
Preparation and Structural Characterisation of Nickel/Alumina nano-Particles Composite Coatings
Journal of Optoelectronics and Advanced Materials, 8 (3), 2006, p.1234-1237, Bucharest, ISSN 1454-4164

Gheorghies C., **Cârâc G.**, Stasi I. V.
Preparation and structural characterization of nickel/alumina nano-particles composite coatings,
Journal of Optoelectronics and Advanced Materials, 2006, 8(3) 1234-1237

Cârâc, G., Benea, L., Iticescu, C., Lampke, Th.; Steinhauser, S.; Wielage, B.
Codeposition of Cerium Oxide with Nickel and Cobalt Correlation between Microstructure and Microhardness
Surface Engineering, vol. 20, No. 5, 2005, S. 353-359, DOI: <http://dx.doi.org/10.1179/026708404X1134>
<http://www.sciencedirect.com/science/article/pii/S0257897207006202>

Benea, L., **Cârâc, G.**
Obtaining of composite coatings by metal electrodeposition using disperse particles
Cercetări Metalurgice și de Noi Materiale (Romanian- English) 1997), 5(2) 20-40
CODEN: CMEMEW ISSN: 1221-5503. Journal written in English-Romanian. CAN 127:240195 AN 1997:566442 CAPLUS (Copyright 2005 ACS on SciFinder (R)).

2. BDI published papers

Zăpodeanu I., Burlacu M., Ionel G., Radu A., Stanciu C., **Cârâc G.**, Dinica R., Dumitru P., Aniculaesei G.
Increase of paper security rate in order to prevent counterfeit and forgery,
14th Intern. Symposium on Cellulose Chemistry and Technology, Iassy, Romania, Sept. 8-10, 2010

Dinică, R., Furdui, B., **Carac, G.**, Stanciu C.
Fluorescent N-Heterocycles Via One Pot Tandem Reactions
5-eme Colloque Franco-Roumain de chimie Applique (COFrRoCA), Bacău, 22-26 June 2008
ISBN:973-8392-36-5, indexare: CAN 143:266794, AN 2004:1043739, CAPLUS

Georgescu, L. P., **Cârâc, G.**

3. Papers published in CNCSIS recognized journals (selective)

- Popa, P., **Cârâc, G.**, Cojocaru, P.
Comparative electrochemical study on Ni and Ni-Co alloys
The Annals of the "Dunarea de Jos" University of Galati, Fascicle II - Mathematics, Physics, Chemistry, Informatics (CD-ROM)YEAR III (XXXII) 2009, Proc. 1st Intern. Symp. on Applied Physics – Materials Science, Environment and Health (ISAP1), Galati, Nov.28th-29th, ISSN 2066-712, 2009, p. 189-195
- Cosor (Rusu) D. E., Ispas A., Bund A., **Cârâc G.**, Gheorghies C.
A study on Ni electrodeposited from a Watts bath
The Annals of the "Dunarea de Jos" University of Galati, Fascicle II - Mathematics, Physics, Chemistry, Informatics (CD-ROM)YEAR III (XXXII) 2009, Proc. 1st Intern. Symp. on Applied Physics – Materials Science, Environment and Health (ISAP1), Galati, Nov.28th-29th, ISSN 2066-712, 2009, p. 371-375
- Iticescu C, **Cârâc, G.**, Mitoseriu O.
Influence of CeO₂ on the Electroless Deposition of the Copper Coatings,
Bulletin of the Polytechnic Institute of Iassy, Tomul LI (LV),
Fascicle 3, ISSN 1453-1690, p. 149-154
- Iticescu C., **Cârâc G.**, Mitoseriu O.
Electroless Plating Using Particles in the Electrolyte
The 3th Conference of the Faculty of Chemistry, Bulletin of the Polytechnic Institute of Iassy, Tom XLIX (LIII),
Fascicle 5, Chemistry and Industrial Chemistry, p. 201-206
- Iticescu C., **Cârâc G.**, Mitoseriu O.
The Optimization of Parameters in Copper Coatings Obtained by Electroless Plating
The 11th Conference on Physical Chemistry, Timișoara, Romania, 3-5 Sept. 2003, Annals of West University of Timisoara, Series Chemistry, ISSN 1224-9513, vol. 12, no.3, p. 569-575
- Cârâc G.**, Iticescu C., Mitoseriu O.
The Effect of Concentration of Embedded Particles in Electrodeposited Cu-CeO₂ Composite Coatings
The 11th Conference on Physical Chemistry, Timisoara, 3-5 Sept.2003,
Annals of West University of Timisoara, Series Chemistry, 2003, 12(3) 475-485, ISSN 1224-9513
- Florea T., Zara M., Nicolau A., **Cârâc G.**, Vasile A.
Potential Risk at Food Packaging Using Cellulosic Materials,
The Annals of „Dunarea de Jos”, University of Galati, Fasc. VI, Tehnologia Produselor Alimentare, ISSN 122-4574, p. 72-79
- C. Iticescu, O. Mitoseriu, **Cârâc, G.**,
Preparation and Investigation of Cu-CeO₂ Composite Coatings,
The Annals of „Dunarea de Jos”, University of Galati, Fasc. IX, Metallurgy and Material Science, 2004, 1, 5-10, ISSN 1453-083 X, 43
- Cârâc, G.**, Mitoseriu, O., Milanova, M., Todorovscky D.
Lanthanide Compounds in the Electroplating Processes
The Annals of Dunarea de Jos, University of Galati, Fascicle IX, Metallurgy and Material Science, 1997, 35-39; ISSN 1453-083 X, 43
- Cârâc G.**, Mitoseriu O., Potecașu F., Mitoseriu L.
Structural Aspects of Cobalt-Ceria Composite Coatings Obtained by Electrodeposition
The Annals of “Dunărea de Jos”, University of Galati, Fasc. IX, Metallurgy and Material Science, 1997, 39-43, ISSN 1453-083 X, 43

4. Papers published in works of the international symposiums (selective)

- Cârâc G.**, Dinica R., Stanciu C., Zapodeanu I.
Electrochemical study of a novel series of heterocyclic compounds of pyridine,
South-East Europe Sava Center, Belgrade, Serbia, RSE-SEE, June 6 to 10, 2010, poster OEH P-07.
- R. Dinica, B. Furdui, **G. Cârâc**, I. Zapodeanu, A. Birladeanu,
Synthese de Nouvelles sels Quaternaires de Pyridine et leur etudes Electrochimiques,
Sixieme Colloque, Franco Roumaine de Chimie Aplique, COFrRoCA 2010 , Orleans, France, 7-10 julliet 2010,
www.univ-orleans.fr/cofroca2010
- R. Dinica, B. Furdui, C. Stanciu, **G. Cârâc**,
Proprietes Electrochimiques d'une Serie d'accepteurs d'electrons base sur nHeterocycles,
Sixieme Colloque, Franco Roumaine de Chimie Aplique, COFrRoCA 2010, Orleans, France, 7-10 julliet 2010,
www.univ-orleans.fr/cofroca2010
- G. Cârâc**, Benea L., C. Iticescu, Th. Lampke and S. Steinhäuser (2003);
Correlation between Structure and Resulting Wear and Corrosion Resistance of Functionally Modified Surfaces by Codeposition of Cerium Oxide with Nickel and Cobalt,
The EUROCORR Conference, Budapest- Hungary, 28 Sept.-2 Oct.2003, Session WP17, Abstract 282 (paper accepted for oral presentation, published in proceeding).

- Banu, A., **Cârâc, G.**, Calota, A., 2006,
Comparative electrochemical study in cobalt and cobalt molybdenum coatings,
Nonconventional Technology, Review, nr. 1, ISSN 1454-3087; p. 25-30, 6 pg.
- Banu, A., **Cârâc, G.**, Marcu M., 2005,
Electrochemical and corrosion behavior of Ni-ZrO₂ electrodeposited layers
Nonconventional Technology, Review, nr. 3, ISSN 1454-3087; p. 85-88; 4 pg.
- Cârâc G.**, Mitoşeriu, O., ,
Obţinerea acoperirilor compozite Co-CeO₂,
Tehnologii Calitate, Maşini, Materiale 25 (TCMM), Ecologie-Acoperiri Metalice-Coroziune, 1997, Ed. Teh., ISBN 973-31-113-9, 1997,
p. 125-130
- Cârâc, G.**, Schneider, W. Mitoşeriu, O., Plieth, W.
Structural Aspects of Electrodesited Cobalt-Ceria Composite Coatings,
Jahrestagung 1998, der G.D.Ch. Fachgruppe Angewandte Electrochemie und 4. Electrochemisches Grundlagensymposium, 30th
Sept.-2th Oct., Frankfurt am Mein, Germany, Abstract, 50, (2000), Monographie Bd.18, Proceedings of the "Metalle in der
Elektrochemie", ISBN 3-924 763-85-2, p. 110-116, 6 pg.
CODEN: GDCHAI Journal written in English. CAN 138:228348, AN 2002:960810 CAPLUS (Copyright 2005 ACS on SciFinder (R))
- Mitoseriu, O.; Drugescu, E.; Benea, L.; Levcovici, S.; Potecasu, F.; Constantinescu, S.; **Cârâc, G.**; Mitoseriu, L.
Composite coatings obtained by codeposition during copper, cobalt and iron electroplating,
Surface Modification Technologies XI, Proceed. of the Intern. Conference.
11th, Paris, Sept. 8-10, 1997 (1998), Meeting Date 1997, p. 417-422, 6 pg. (Publisher: Institute of Materials, London, UK).
CODEN: 66MAA8 Conference written in English. CAN 129:251640 AN 1998:495326 CAPLUS (Copyright 2005 ACS on SciFinder (R))
- Mitewa, M.; **Cârâc, G.**; Milanova, M.; Todorovsky, D.
Synthesis of lanthanoid complexes with saturated N6-macrocycle hexacyclene
Bulg. Godishnik na Sofiiskiya Universitet "Sv. Kliment Okhridski", Khimicheski Fakultet (1999), vol. date 1997, 89, p. 35-38, 4 pg.
CODEN: GSKFAL ISSN: 0584-0317. Journal written in English. CAN 133:37276 AN 2000:301197 CAPLUS (Copyright 2005 ACS on SciFinder (R))

5. Posters (representative)

- Dinică, R, Furdui B, **Cârâc G.**, Bărlădeanu A, Stanciu, C.
Synthesis of novel Fluorescent Precursors starting from substituted pyridines via microwave irradiation,
First Symposium on Microwave Assisted Organic and Peptide Synthesis, 4-5 June, Montpellier, France, p.25
- Dinică, R, Furdui B, **Cârâc G.**, Stanciu, C.
Synthesis of novel Fluorescent Precursors starting from substituted pyridines via microwave irradiation,
First Symposium on Microwave Assisted Organic and Peptide Synthesis, 4-5 June, Montpellier, France, p. 24
- Cârâc G.**, Bund A., Wuensche F., Lampke Th., Steinhäuser S.
Electroplating with Al₂O₃ and SiO₂ nano-particles from a pyrophosphate bath
Mehrländertagung mit 42. Jahrestagung der DGO, Dresden, 22-24 Septem. 2004, Annual DGO Meeting, Dresden, Germany P45.

B. BREVETS

Security paper and methods, for its obtaining Brevets No.: **126417**(a200901013/2010) accorded from 03.12.2009 for 20 years,
Partners CEPROHART s.A Braila & UNIVERSITY "Dunarea de Jos" GALATI (UDJG)
Authors from UDJG: Constantin Stanciu **Geta Cârâc**, Rodica Dinica

E. GRANTS

• International GRANTS (representative)

Coordinator

- Bilateral Cooperation Project ROM 01/014 (2002-2004).
Electrochemical and chemical investigations of the co-deposition of small particles (SiC, CeO₂, Al₂O₃, nanodiamonds) with copper, nickel, cobalt, zinc and gold matrices
Cârâc Geta (principal investigator) and Siegfried Steinhäuser, Germany - Romania
- SONDERFORSCHUNGSBEREICH 609, Grant individual in proiectul Elektromagnetische Strömungsbeeinflussung in Metallurgie, Kristallzüchtung und Elektrochemie (Electromagnetic influence on convection in metallurgy, crystal growth and electrochemistry); Dresden University of Technology, Institute of Physical Chemistry and Electrochemistry; August 2005.
- Grant individual STSM (Short Term Scientific Mission) G. Cârâc,
- COST-ONLINE_STSM-D33-2446, (February), Host's Name and Institution: Arunas Ramanavicius, Vilnius University, Lithuania

Grant individual STSM (Short Term Scientific Mission) G. Cârâc, Nanostructured composite coatings obtained by electrodeposition-processing and properties characterization, Trento University-Italy (August 2005)
2000-2013: responsible Erasmus/Socrates Germany, Technical University Dresden,
2004-2013: responsible Erasmus/Socrates Germany Chemnitz University of Technology

2008-2013: responsible Erasmus/Socrates Lithuania, Vilnius University
2001-2002: responsible Erasmus/Socrates Spain, University from Barcelona

- **National projects**

- **Coordinator**

2009: PCE-IDEI, project no 2290, **G. Cârâc - Manager**

Obtaining of electrodeposited nickel nanowires in nanoporous structures of nanocelule anodized aluminum oxide.

2000-2002 ORIZONT Grant no 537 **G. Cârâc** and al. (secondary investigator).

Paper and Carton Microbiological Criteria for Food Industry (paper for packing, filter fibrous composites for alimentary liquids)

2007, Impact ELESINAN, no 589/2007, **G. Cârâc**, Electrochemistry for nanostructures systems, for studies of chemical and biochemical processes, no founded

- **Member**

2011-2014, PN-II-ID-PCE-2011-3-0226: „Access to new bioactive molecules by development of original biocatalysts for reactions like click-chemistry”,

2007-2010: Research Grant, CNMP PNII, Nr.71 -126/62D7/18.09.2007, name FILFLOSEC, partner 1 University „Dunărea de Jos”,

Integrated system for security of value marks and documents, realized in the process of obtaining and printing of support paper, CNMP, UDJ

2006-2007: Regional centre for monitoring and research of environment quality „Dunărea de Jos” University, Galați; CEEX IV no. 299/18.09.2006

E. OTHER SCIENTIFIC CONTRIBUTIONS

Stoica, M., Bahrim, G., **Cârâc, G.**

Capitol: *Factors that Influence the Electric Field Effects on Fungal Cells*

In Science against microbial pathogens: communicating current research and technological advances

A. Méndez-Vilas (Ed.), Publisher: Formatex Research Center, vol.2. 291-302, ISBN (13): 978-84-939843-1-1

www.formatex.org/microbiology3/chapters1.html

Stoica, M., Alexe P., Dinică, R., **Cârâc, G.**

Capitol: *Electrochemical Behaviour of AISI 304 Stainless Steel Immersed in Mixtures Consisting by Biocide and Fungal Suspensions*
in: The Food Industry / Book 2, Ed: In-Tech, Croatia, ISBN 979-953-307-709-2.

Other professional activities

1. I have supervised at the undergraduate students with an average of 4-5 students per academic year (from 1996-present: 35).
2. I was member of the faculty board, adjunct of the head of department of chemistry (2002-2004).
3. I developed few teaching materials (in Romanian language), including 7 university handbooks and many practicals.
4. I have a good experience in the development of the researches contract with industries partner for environmental needs.