



Florentina GOLGOVICI

Associate Professor
Faculty of Applied Chemistry and Materials Science

Department of General Chemistry

Group of General Chemistry



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Biography

Date	Role
2013-	Associate Professor, Department of , Politehnica University of Bucharest
2004 -2013	Senior Lecturer, Department of , Politehnica University of Bucharest
1997-2004	Assistant Professor, Department of , Politehnica University of Bucharest
1997-2002	Ph.D. in Chemical Engineering, Department of , Politehnica University of Bucharest, Thesis Title: ”The corrosion and protection of aluminium and aluminium alloys in acidic, neutral and alkaline media”, Thesis Supervisor: Prof. Ioan Viorel Branzoi
1997-1998	Advanced Studies, Department of , Politehnica University of Bucharest, Dissertation: „ The corrosion of aluminium in acidic media with and without organic inhibitors”
1992-1997	M.Sc. (Graduate Engineer/Diplomate engineer), Technology of Inorganic Substances, Faculty of Industrial Chemistry, Politehnica University of Bucharest, Diploma thesis: „Reduction of water turbidity”

Research

Research Interests

- Corrosion and anticorrosive protection;
- Applied Electrochemistry;
- Physical chemistry of electrode processes;
- Thermoelectric materials
- Metal surface treatments in aqueous and ionic liquids based electrolytes;
- Advanced materials/nanomaterials synthesis;
- Power Sources.



Selected Research Projects

- *Internal structure and local nanostructure onto aluminium oxide films analyzed by electrochemical impedance spectroscopy (EIS) and scanning electronic microscopy (SEM,)* ANSTI Research Project 2000-2002, Project manager;
- *Nanostructured biocellulose membranes uses for biofuel cell and for controlled release of drugs and active principles of plants,* CEEX Research Project 2006-2008, Project manager;
- *Enzymes immobilization in conductive polymeric films for obtaining modified electrodes and biosensors,* ANSTI Research Project 2001-2002;
- *Microwave fields used in the synthesis of antiscalant and anticorrosive polymer for industrial installations protection,* CEEX Research Project 2006-2009;
- *Environmentally friendly ionic liquids with applications in electrochemical surface treatments of high performance,* PNCDI Research Project 2008-2010;
- *Electrodeposition of thin thermoelectric films based on Bi_2Te_3 n and p doped and the fabrication of mini thermoelectric generator,* Bilateral cooperation Romania-China 2009-2010

Academic interests

Teaching activity

Studies	Program Name/Faculty	Code	Title	Activity type
Bachelor	<i>Power electronics and electrical drives; Economic engineering in electrical, electronic and energetic domain /Electrical Engineering</i>	<i>UPB.01.F.01.O.004</i>	<i>Chemistry</i>	<i>Course, practical laboratory work</i>
	<i>Road vehicles/ Faculty of Transports</i>	<i>UPB 08.F.01.O.004</i>	<i>Chemistry</i>	<i>Course, practical laboratory work</i>
	<i>Automatic Control and Applied Informatics specialization, Automatic Control and Industrial Informatics / Automatic Control and Computer Science</i>	<i>UPB.03.F.01.O.004</i>	<i>Chemistry</i>	<i>Course, practical laboratory work</i>
Master	<i>Substances, Materials, Biocompatible Systems</i>	<i>UPB.14.01.O.02-03</i>	<i>Bioelectrochemistry and biothermodynamics</i>	<i>practical laboratory work</i>

Other Teaching

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Honours and Awards

Awards



2009 National University Research Council of Romania (CNCSIS): Two Prizes for research results

2008 National University Research Council of Romania (CNCSIS): Prize for research

Membership of Professional Bodies

From 2005: Member of the Romanian Chemical Society

From 2009: Member of the Romanian Society for Biomaterials

From 2009: Member of International Society of Electrochemistry

Other Significant Activities

From 2012: Member of Teaching Council of *Electrical Engineering* Faculty

Reviewer for Journal of Electronic Materials, Surface and Interface Analysis, Surface and Coatings Technology, Materials Chemistry and Physics, Journal of Electroanalytical Chemistry, Technology and Innovation, Journal of Solid State Electrochemistry, Inorganica Chimica Acta, Current Organic Chemistry, Materials Science in Semiconductor Processing.

Member of the Jury for the “C.D. Nenițescu” Chemistry National Contest for Students, Section of Physical Chemistry

Member of Organizing Committee of Regional symposium on electrochemistry RSE-SEE 3, Bucuresti, Romania, mai 2012

Plenary Lectures

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Further Information

Hirsch Index: 7 (ISI Web of Knowledge, February 2014)

Publications

Journal Articles

1. V.Brânzoi, F. Brânzoi, M.V.Popa, **Florentina Golgovici**, *The influence of different aggressive anions on the electrochemical behaviour of aluminium in NaNO₃ aqueous solutions*, Materials and Corrosion, 51, pp. 635-641, 2000.

2. G.Durante, S. Vegni, P. Capobianco, **Florentina Golgovici**, *High temperature corrosion of metallic materials in molten carbonate fuel cells environments*, Journal of Power Sources, vol. 152, pg.204 – 209, ISSN: 03787753, 2005.

3. **Florentina Golgovici**, A.Cojocaru, M.Nedelcu, T.Visan, *Cathodic deposition of components in BiSbTe ternary compounds as thermoelectric films using choline-chloride-based ionic liquids*, J.Electronic Materials, 39 (9) 2079-2084, 2010.

4. A. Florea, L. Anicai, S. Costovici, **Florentina Golgovici**, T. Visan, *Ni and Ni alloy coatings electrodeposited from choline chloride-based ionic liquids –electrochemical synthesis and characterization*, Surf. Interface Anal. 42, 1271–1275; 2010.



5. **Florentina Golgovici**, A. Cojocaru, L. Anicai, T. Visan, Surface characterization of BiSbTe thermoelectric films electrodeposited from chlorides aqueous solutions and choline chloride based ionic liquids, *Materials Chemistry and Physics* 126, 700–706, 2011.

6. **Florentina Golgovici**, T.Visan – “Electrodeposition Behaviour of Cadmium Telluride From Choline Chloride-Urea Ionic Liquids”, *Chalcogenide Letters*, Vol. 9, No.4, pp.165-174, 2012.

Books

1. **Florentina Golgovici**, Florina Brânzoi – “Considerații generale asupra coroziunii aluminiului și a aliajelor sale în diferite medii”, ISBN 973-652-999-1, Ed. Printech 2004.

2. **Florentina Golgovici**, M.Prodana, M.D.Ionita – “Metode avansate de caracterizare a biomaterialelor”, ISBN 978-606-521-692-1, Ed. Printech 2011.

Chapters

1.V.Brânzoi, Florina Brânzoi, **Florentina Golgovici** – “A study of thin anodic films by electrochemical impedance spectroscopy” in “Trends in Electrochemistry and Corrosion at the Beginning of the 21st Century”, Publicacions Edicions de la Universitat de Barcelona, 2004, ISBN 84-45-263-9, Desposit legal: B-18134-2004, Printed en Spain.

Conferences

Florentina Golgovici, Anca Cojocaru, Marin Nedelcu, Teodor Visan, *Electrodeposition of Bismuth, Antimony and Tellurium Using Choline Chloride Based Ionic Liquid*, The 60th Annual Meeting of the International Society of Electrochemistry August 16-21, Beijing, China, 2009

Florentina Golgovici, A.Cojocaru, M.Nedelcu, L.Anicai, T.Visan, *Surface characterization of thermoelectric films electrodeposited from chlorides aqueous solutions and choline chloride based ionic liquids*, 13th European Conference on Applications of Surface and Interface Analysis, October 18-23, Antalya, Turkey, 2009.

Florentina Golgovici, T.Visan – *Cathodic Deposition of BiTe as thermoelectric films using choline chloride based ionic liquids* - The 9th European Conference on Thermoelectrics, ECT 2011, 28-30 Septembrie, 2011, Thessaloniki, Greece

Florentina Golgovici, T.Visan - *Electrodeposition of Nanostructured CdTe Films Using Choline Chloride - Malonic Acid Ionic Liquid*, 12th International Fischer Symposium on “Frontiers in Nanoelectrochemistry”, 3-7 iunie 2012, Lubeck, Germania

Florentina Golgovici, T.Visan - *Electrochemical polymerization of pyrrole in deep eutectic ionic liquids*, XVIII World Interfinish Congress & Exhibition, Iterfinish 2012, 13-16 Noiembrie 2012, Milano, Italia

Patents

Other

V.Brânzoi, F.Brânzoi, **Florentina Golgovici**, M.V.Popa, *The influence of different aggressive anions on the electrochemical behaviour of aluminium in NaNO₃ aqueous solutions*, ECASIA'99, (8 pp) 2-8 october 1999, Sevilla, Spain



University POLITEHNICA of Bucharest

Florentina Golgovici, L.Anicai, T.Visan, *Studies of electrodeposition processes of antimony using choline chloride based ionic liquids*, The 16th Romanian International Conference on Chemistry and Chemical Engineering, September 9-12, 2009, Sinaia, Romania