



PERSONAL INFORMATION

TURDEAN Graziella Liana

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 graziella.turdean@ubbcluj.ro

Sex F | [Data of birth](#) 1965 | [Nationality](#) Romanian

WORK EXPERIENCE

1 Oct. 2018 - present

Full Professor

Faculty of Chemistry and Chemical Engineering, Department of Chemical Engineering

Courses: Thermodynamics, Food conditioning and preservation in the food industry, Macromolecular Materials and their Biodegradability, Physical chemistry of food preservation, Electrochemical Sensors and Biosensors, "Smart" materials applied in environmental and biomedical, Material having ionic and molecular recognition properties, Advanced Physical Chemistry

Research activities, coordinator of diploma/dissertation/doctorate thesis

[Business or sector](#): higher education

1 Oct. 2016 - present

PhD. Coordinator (Doctoral School in Chemical Engineering)

University Babes-Bolyai, Cluj-Napoca

Courses: Methodology for elaborating research grants in the Chemical Engineering field, Ethics and academic integrity

[Business or sector](#): higher education, scientific research

1 Oct. 2007- 30 Sept. 2018

Associate Professor

Faculty of Chemistry and Chemical Engineering, Department of Physical Chemistry (2007-2012) and Department of Chemical Engineering (2012 - 2018)

Courses: Thermodynamics, Food conditioning and preservation in the food industry, Physical Chemistry of Polymers, Macromolecular Materials and their Biodegradability, Electrochemistry, Physical chemistry of food preservation, Advanced Physical Chemistry, Electrochemical Sensors and Biosensors, "Smart" materials applied in environmental and biomedical, Material having ionic and molecular recognition properties, Bioelectrochemistry

Research activities, coordinator of diploma/dissertation/doctorate thesis

[Business or sector](#): higher education

1 March 1999 – 30 Sept. 2007

Lecturer

Faculty of Chemistry and Chemical Engineering, Department of Physical Chemistry

Courses/practical works: Thermodynamics, Physical Chemistry of Polymers, Electrochemistry, Bioelectrochemistry, Electrochemical Sensors and Biosensors, General Physical Chemistry

Research activities, coordinator of diploma/dissertation thesis

[Business or sector](#): higher education

1 Oct 1996 – 28 Febr. 1999

Assistant Professor

Faculty of Chemistry and Chemical Engineering, Department of Physical Chemistry

Practical works: Thermodynamics, Electrochemistry, Colloid chemistry and Interfaces, Electrochemical Sensors and Biosensors, General Physical Chemistry

Research activities, coordinator of diploma thesis

[Business or sector](#): higher education

1995 - 30 Sept. 1996

Scientific Researcher / Research Assistant

15 Dec. 1993 – 1995

Faculty of Chemistry and Chemical Engineering, Institute of Chemical and Biochemical Energetics Bucharest, Subsidiary Cluj-Napoca

Research activities, coordinator of diploma thesis

[Business or sector](#): scientific research

1 May 1991 – 14 Dec. 1993

Research Assistant

Institute of Chemistry „Raluca Ripan” from Cluj-Napoca, Laboratory of Electrochemical Sensors

[Business or sector](#): scientific research

Sept 1989 – 30 apr. 1991

Chemical Engineering

"Unirea" enterprise, Cluj-Napoca, Galvanizing Workshop, Quality Control Laboratory

Activities: electroplating, anticorrosive protection, quality control of materials

Business or sector: industry

EDUCATION AND TRAINING

14 Jul. 2016

Habilitation attestation, Specialisation "Chemical Engineering"

Order of Ministry of Education and Scientific Research no. 4836/11.08.2016

Thesis title: "*Bio/molecular information processing of the fascinating world of nanostructures: from micro- to "smart" electrodes*"

2013 (17 - 21 June, 1 week)

Summer School on Electrochemistry for Environmental and Biomedical Applications

"Iuliu Hatieganu" University of Medicine, Cluj-Napoca (certificate of attendance)

2000, 2002, 2004 (March- Sept, 18 months)

Post-doctoral studies

University "La Sapienza", Rome (Italy), (2002, NATO - Centro Nazionale della Ricerca fellowship); University "Tor Vergata", Rome (Italy), (2000, Romanian Ministry of National Education fellowship; 2004, NATO - Centro Nazionale della Ricerca fellowship)

12 Dec. 1997

Ph.D. in Chemistry (co-direction)

EQF/CEC: 8

University "Babeş-Bolyai" Cluj-Napoca (Romania), Specialisation "Physical Chemistry" (Diploma Serie P, no. 0006822 / no. 272/01.06.1998) and Université Paris XII (France), Specialisation "Sciences et Techniques de l'Environnement", qualification "*tres honorable*" (Diploma 97/43/16.01.2001)

Thesis title: "Amperometric biosensor for the study of inhibition of acetylcholinesterase"

1992 - 1993

Research Stage equivalent with Master Diploma

EQF/CEC: 7

Université Paris XII - Val de Marne, Créteil (France), Faculte des Sciences et Technologies, research stage financed by Bourse du Gouvernement Francais fellowship (French Ministry of Education), equivalent with DEA diploma at Université Paris XII - Val de Marne, Créteil (France)

Thesis title: "Choline oxidase-based biosensor"

1992 (June, 2 weeks)

International Course "Electrochemistry of Modern Sensors and their Applications in Chemical Analysis"

UNIDO and International Institute for Pure and Applied Chemistry, University of Trieste (Italy), (certificate of attendance)

1992 (Nov., 2 weeks)

Trening cours "Capteurs enzymatiques"

CNRS, CREUFOP and Université de Perpignan (France), (Diploma from 23.11.1992)

1990 (March, June, Oct, 3 months)

Postgraduate diploma in "Corrosion and anticorrosive protection"

Faculty of Chemistry and Chemical Technology, University "Babeş-Bolyai" Cluj-Napoca, (Diploma Serie B, no. 1499/ no. 249/16.10.1990)

1984 - 1989

Chemical Engineering diploma

EQF/CEC: 6

"Babeş-Bolyai" University Cluj-Napoca, Faculty of Chemistry and Chemical Technology, Diploma of engineer (Serie H, no. 3780/no. 55/26.06.1989), final mark 9.67/10 (top of the class), mark 10 to the final examination

Thesis title: "Plant for simultaneous preparation of Mn and MnO₂ by electrolysis with a production capacity of 2000 tone Mn/year and 3000 tones MnO₂/year"

1980 - 1984

Diploma of baccalaureate

EQF/CEC: 4

High school "Emil Racoviță", Cluj-Napoca

Diploma of baccalaureate Serie C, no. 71222/ no. 29/1984/06.07.1984

Stays abroad

September 2023

Universita degli studi di Milano-Bicocca, Milan, Italy, Erasmus mobility

May 2023

University CERRAHPAŞA, Istanbul, Türkiye, Erasmus mobility

May 2022

Universita degli studi di Messina, Faculty of science, Italy, Erasmus mobility

Sept. 2019

Polytechnic University of Catalunya, Barcelona, Spain, Erasmus mobility

Sept. 2018

Faculty of Sciences and Technology/ Department of Chemistry, Universidade Nova de Lisboa, Erasmus mobility

May 2018, July 2017,

Al-Farabi Kazakh National University, Faculty of Chemistry and Chemical Technology, Almaty,

June 2016

Kazakhstan, Erasmus mobility

June 2017

Escuela Superior Polytecnico di Riobamba, Faculty of Chemistry, Riobamba, Ecuador, Erasmus mobility

May 2016	University of Cagliari, Faculty of Chemistry, Cagliari, Italy, Erasmus mobility
Sept 2015	University of Pisa, Faculty of Chemistry, Pisa, Italia, Erasmus mobility
Oct. 2011	University "La Sapienza", Rome, Italy, research stay, 3 weeks
18 June-2 July 2003	University "Tor Vergata", Rome, Italy, Socrates teaching staff
1999 (Oct., 1 month)	University Alcalá de Henares, Spain, research stay
1995 - 1997 (Apr., 3 months)	Université de Perpignan, France, doctoral research stays
1995 - 1997 (15 Feb. - 15 July., 15 months)	Université Paris XII - Val de Marne, Créteil, France, doctoral research stays, financed by Bourse du Gouvernement Français fellowship (French Ministry of Education)

PERSONAL SKILLS

Mother tongue(s)	Romanian				
Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Listening	
French	C1/2	C1/2	C1/2	C1/2	B1/2
English	B1/2	C1/2	B1/2	B1/2	B1/2
Italian	C1/2	C1/2	B1/2	B1/2	A1/2

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Communication skills good communication skills gained through my experience as a teacher

Organisational/managerial skills Head of Department of Chemical Engineering (2016-2020, 2020-2024)
Member of Faculty Council (2012-2016, 2016-2020, 2020-2024)
Member of the Council of the Department of Chemical Engineering (2016-2020, 2020-2024)
Vice-Director of Research Center of Electrochemistry and Non-conventional Materials (2016-present)

Job-related skills Competences in administrative evaluation (ARACIS Expert - Commission C11- Engineering Sciences II), educational evaluation (president/member in study completion committees, member in admission committees, member in doctorate committees), in research evaluation (director/member in research teams financed by grants obtained by national/international competition), in the publication of scientific articles evaluation (reviewer, member of editorial committees)
Competences in scientific research in the field of materials with redox properties

Computer skills Good knowledge in Microsoft Office™, Internet Explorer, Origin, SigmaPlot, electrochemical-specific soft

Other skills **Peer review evaluator**
 Evaluation of Eugene Ionesco scholarship applications funded by the Romanian Government and coordinated by the Francophone University Agency (2010-2011, 2011-2012)
 Evaluation of application for BGF scholarships funded by the French Government and coordinated by the French Embassy in Bucharest (2015-2016, 2016-2017)

Member of Editorial board of scientific journals
 Chemical Bulletin of Kazakh National University
 (<https://bulletin.chemistry.kz/index.php/kaznu/index>)

Guest Editor/Special Issue Editor
2021, *Crystals* (Special Issue "Hydroxyapatite Based Nanocomposites (Volume II)", https://www.mdpi.com/journal/crystals/special_issues/HAP_Nanocomposites_II);
2020, *Crystals* (Special Issue "Hydroxyapatite Based Nanocomposites", https://www.mdpi.com/journal/crystals/special_issues/HAP_Nanocomposites);
2020, 2015, *Studia Universitatis Babeş-Bolyai Chemia* for volumes 65 (1), 65(3), 60(3);
2019, *Sensors* (Special Issue "Graphene-Based Materials for Electrochemical Sensing", https://www.mdpi.com/journal/sensors/special_issues/GO_Electro_sens).

Reviewer of scientific journals
 Talanta, Journal of Electroanalytical Chemistry, Electroanalysis, Sensors, Bioelectrochemistry, Ionics, Materials Today, Hazardous Materials, Analyst, Journal of Solid State Electrochemistry, J Taiwan Inst Chem Eng, Pakistan J Chem, Anal Letters, Langmuir, Studia Chem UBB, etc.

Coordinator of research activities developed by foreign students at FCIC

HIDALGO Viteri Juan (Pannonia University, Veszprem, Hungary, Erasmus fellowship march-September 2023), ABDUAKHYTOVA Dinara (Al-Farabi Kazakh National University, Almaty, Kazakhstan, Febr-May 2022, PhD), KHAVAZA Tamina (Al-Farabi Kazakh National University, Almaty, Kazakhstan, Febr-May 2022, PhD), HIDALGO Viteri Juan (ESPOCH, Riobamba Ecuador, PhD, oct 2021- Sept 2022, PhD), HEKİMOĞLU Gökhan (Karadeniz Technical University, Turkey, March-May 2022, PhD), SANOU Ali (Institut National Polytechnique Félix Houphouët Boigny (INPHB), Yamoussoukro, Cote d'Ivoire, sept-dec 2021, PhD), **DUBREUCQ Nathan** (Université de Rouen Normandie, Franta, Feb-March, 2020 licence), NGO Thi Thanh Hien (HaNoi University of Science and Technology, Hanoi, Vietnam, May-July 2017, 2018, PhD), ASKAROVA Gaukhar (Al-Farabi Kazakh National University, Almaty, Kazakhstan, Nov 2016 - Febr. 2017, master), ABLAYEVA Kamilla (Al-Farabi Kazakh National University, Almaty, Kazakhstan, Nov 2016 - Febr. 2017, master), LEFEVRE Pierre Louis (University of Rennes, France, May-June 2015, licence), LEFEVRE Pierre Louis, (IUT Rouen, France, Apr.-June 2014, licence), JANUZAJ Valdrin (University of Prishtina, Kosovo, Nov. 2013- Jan. 2014, master), MULA Vllaznim (University of Prishtina, Kosovo, Nov. 2013- Jan. 2014, master), ZDRAVKOVSKA Hristina (Ss. Cyril and Methodius University in Skopje, Macedonia, Nov. 2010—Jan. 2011, master), NAUMOVA Galaba (Ss. Cyril and Methodius University in Skopje, Macedonia, Nov. 2011-Jan. 2012, master), KOZMINSKI Przemek, University of Warsaw, Poland, Nov. 2003 - Febr. 2004, master).




Co-supervisor of international PhD thesis
 NGO Thi Thanh Hien (HaNoi University of Science and Technology, Hanoi, Vietnam, thesis defended in **Dec 2020**);
 ABDUAKHYTOVA Dinara, KHAVAZA Tamina (Al-Farabi Kazakh National University, Almaty, Kazakhstan, 2019-2022)

Referee of PhD thesis in international universities
2018, DHIRENDRA PRABHAKAR, Birla Institute of Technology, Mesra, Ranchi-835215, Jharkhand, India,

Driving licence with driving licence category B

ADDITIONAL INFORMATION

Publications

- Hidalgo Viteri J., Cotoian N., Lupan A., Brânzanic A.M.V., Turdean G. L. , *A poly(methyl methacrylate)-ibuprofen composite film as anticorrosive coating of Ti-6Al-4V surface*, Journal of solid state Electrochemistry **2023**, <https://doi.org/10.1007/s10008-023-05681-w>
- Belcovici A., Fort I. C., Mureşan L. E. , Perhaiţa I., Borodi G., **Turdean G. L.** , *Zinc oxide*

nanostructured platform for electrochemical detection of heavy metals, *Electroanalysis*, **2023**, 35, e202200395, <https://doi.org/10.1002/elan.202200395>

3. Hidalgo Viteri J., Cotolan N., Barbu-Tudoran L., **Turdean G. L.**, *A paracetamol - poly(3,4-ethylene dioxythiophene) composite film for drug release studies*, *Materials Today Communications*, **2023**, 34, 105084, <https://doi.org/10.1016/j.mtcomm.2022.105084>
4. Fort I.C., Cobzac S. C.A., **Turdean G. L.**, Second-order derivative of square-wave voltammetry for determination of vanillin at platinum electrode, *Food Chemistry*, **2022**, 385, 132711.
5. Ngo H. T. T., Fort I. C., Pham T. H., **Turdean G. L.**, *Ordered Mesoporous Silica Incorporating Platinum Nanoparticles as Electrode Material for Paracetamol Detection*, *Electroanalysis*, **2021**, 33, 323-335. DOI 10.1002/elan.202060131.

Presentations Conferences

1. Hidalgo Viteri J., **Turdean G. L.**, Galambos I., A bibliographic review of diclofenac sodium determination with electrochemically modified sensors in different biological, pharmaceutical, and water sources, X Congreso Internacional de Ciencias de la Salud 2023, ESPOCH, Riobamba, Ecuador, 23-27/10/**2023**.
2. Sanou A., Coulibaly M., C. I. Fort, **Turdean G. L.**, Cadmium electroanalytical detection at carbon paste modified electrode based on natural clay, "29th International Symposium on Analytical and Environmental Problems (ISAEF 2023)" from Szeged, Hungary, 13-14 November **2023**.
3. Alexandra Belcovici, Carmen Ioana Fort, Nicoleta Cotolan, Graziella Liana Turdean, Nanostructured based chemically modified electrode for heavy metals detection in water, Water and Wastewater Treatment in the Industry 2023- Challenges of circular water management, Ernő Soós Research and Development Center, Zalakaros, Hungary, 18-19 October **2023**.
4. Belcovici A., Muresan L. E., Perhaita I. M., Turdean G. L., Heavy metals electrochemical detection using zinc oxide nanoparticles, ISE Regional Meeting, August 15th to 19th, **2022**, Praga, Czech Republic (oral presentation).
5. Hidalgo Viteri J., Cotolan N., Turdean G. L., Paracetamol release study from a drug-polymer composite film by electrochemical impedance spectroscopy, ISE Regional Meeting, August 15th to 19th, **2022**, Praga, Czech Republic (oral presentation).

Projects as director

1. "Multi layers architectures based on supramolecular systems for assembling third generation biosensors", **2001-2002**, CNCSIS-AT, theme no. 5, code CNCSIS 188.
2. "Amperometric biosensors of third-generation for detecting organophosphorus pesticides", **2001-2002**, MCT-ANSTI, theme B19.
3. "Smart" electrodic materials with supramolecular structures for detecting nitrites", **2004-2006**, CNCSIS- A, theme 55/375.
4. "Nanocomposite electrodic materials based on carbon nanotubes for nitrites detection", **2007-2008**, CNCSIS –A, code 1529/2007.

Honours and awards

1. **2001**, Nominalization to Award of "Groupe Francais de Bioelectrochimie" for "Young Researcher", at Journées d'Electrochimie, 3-6 June **2001**, Marrakech, Morocco.
2. **2005**, Award of Scientific Research Council of University Babes Bolyai for 2005, for the book entitled "*Biosenzori amperometrici. Teorie și aplicații*", published at Presa Universitară Clujeană (Diploma 30305/23.03.2006).
3. **2008**, Kovács G., Mureșan L., **Turdean G. L.**, Popescu I. C., Bolla Cs., *Modified electrodes for detection glucose from wine*, The 14th International Conference of Chemistry of the Hungarian Technical Scientific Society of Transylvania, University "Babeș-Bolyai", Cluj-Napoca (Romania), 13-15 Nov. **2008**, award of the oral communication by Kajtár Márton Foundation from Budapest (Hungary).
4. **2013**, Silai I. E., **Turdean G. L.**, *Structure- electrochemical properties – antioxidant capacity correlation of some catecholamines investigated by cyclic and square-wave voltammetry*, The 16th Conference for students of Transylvania (ETDK), 20-21 May **2013**, 1st award for oral communication.
5. **2015**, Deac A.R., Cotet C. L., **Turdean G. L.**, Muresan L. M., *Simultaneous determination of Cd(II) and Pb(II) by square wave voltammetry based on carbon paste electrode modified with Bi doped carbon xerogel*, The 5th Regional Symposium on Electrochemistry of South-East Europe, Pravets, Bulgaria, 7-11 June **2015** (poster), award for the best poster.
6. **2016**, Szőke Á. F., **Turdean G. L.**, *Modified electrodes for dopamine detection*, 19th ETDK, Cluj-Napoca, 19-22 May **2016**, 1st award for oral communication.
7. **2016**, Szőke Á. F., **Turdean G. L.**, Comparison of two immobilization techniques used to preparing graphene-based modified electrode for dopamine detection, 13th Students for Students, FCIC, Cluj-Napoca, 13-16 April **2016**, 1st award for oral communication.
8. **2017**, Szőke Á. F., **Turdean G. L.**, The determination of dopamine with modified electrodes,

XXXIIIth OTDK 2017, Miskolc (Hungary) 29-31 March **2017**, IInd award for oral communication.

Memberships

1. Romanian Chemical Society
2. Romanian Electrochemical Society
3. Romanian Society of Chemical Engineering
4. International Society of Electrochemistry
5. Groupe Français de Bioélectrochimie

Conference organisation committee

1. XXVIth International Symposium on Bioelectrochemistry and Bioenergetics of the Bioelectrochemical Society on "Bioelectrochemistry for improved Life Quality", 10-15th of May 2021 at Cluj-Napoca, Romania
2. 14^{eme} Journées d'Electrochimie, Sinaia, Romania, 7-9 July **2009**, (www.je09.org/Detaliu.aspx?t=organisation)
3. SICHEM, University "Politehnica" Bucharest, Romania, **2016, 2018, 2020; 2022**.
4. "Students for Students", FCIC, Cluj-Napoca, Romania, **2016 -present**

Cluj-Napoca, the 6th of February, 2024