



PERSONAL INFORMATION

SORIN-AUREL DORNEANU



 „Babeş-Bolyai" University Cluj Napoca, Faculty of Chemistry and Chemical Engineering, Department of Chemical Engineering, 11 Arany Janos, RO-400028 Cluj Napoca, Romania
 +40.264.59.38.33/5662

 sorin.dorneanu@ubbcluj.ro; dorneanus@yahoo.com

 http://www.chem.ubbcluj.ro/romana/ANEX/inginerie/personal_eng.php

 <https://www.messenger.com/t/100002046170798>

 [dorneanus](#)

Sex Male | Date of birth 15/02/1968 | Nationality Romanian

Research interests

- Design and elaboration of electrochemical sensors computer controlled electronic apparatus used in electrochemical application
- Electrosynthesis and electro detection of some inorganic and organometallic compounds
- Electrochemical techniques for depollution
- Waste treatment and recycling

WORK EXPERIENCE

04/2014 – present

Associate Professor

"Babeş-Bolyai" University Cluj Napoca, Romania, Faculty of Chemistry and Chemical Engineering, Department of Chemical Engineering, 11 Arany Janos, RO-400028 Cluj Napoca, Romania

- Courses and practical works of: Electrotechnics and Electronics, Hard and Soft Interfaces, Acquisition and Treatment of Experimental Data. Electrochemical Synthesis of materials, Electrochemical Sources of Energy. Research Activity

Business or sector: Educational and research

10/2003 – 04/2014

Lecturer

"Babeş-Bolyai" University Cluj Napoca, Romania, Faculty of Chemistry and Chemical Engineering, Department of Physical Chemistry / Chemical Engineering, 11 Arany Janos, RO-400028 Cluj Napoca, Romania

- Courses and practical works of: Corrosion and Anticorrosion Protection, General Physical Chemistry, Electrotechnics and Electronics, Hard and Soft Interfaces, Acquisition and Treatment of Experimental Data, Electrochemical Environmental Process, Pollutants and unconventional depollution methods. Research Activity

Business or sector: Educational and research

10/1998 – 10/2003

Assistant

"Babeş-Bolyai" University Cluj Napoca, Romania, Faculty of Chemistry and Chemical Engineering, Department of Physical Chemistry, 11 Arany Janos, RO-400028 Cluj Napoca, Romania

- Practical works: Electrochemistry, Thermodynamic, Electrotechnics and Electronics, Hard and Soft Interfaces. Research Activity

Business or sector: Educational and research

05/1993 – 10/1998

Research Assistant

"Babeş-Bolyai" University Cluj Napoca, Romania, Faculty of Chemistry and Chemical Engineering, Department of Physical Chemistry, Electrochemistry Laboratory, 11 Arany Janos, RO-400028 Cluj Napoca, Romania

- Researches concerning the elaboration of electrochemical sensors and laboratory electronic apparatus

Business or sector: Research

EDUCATION AND TRAINING

- 09/1996 - 10/2001 **PhD in Chemistry** EQF Level 8t
 PhD student, „Babeş-Bolyai" University Cluj Napoca, Romania, Faculty of Chemistry and Chemical Engineering, Department of Physical Chemistry
 ▪ PhD thesis: “Réalisation et caractérisation de capteurs à ions alcalins utilisés en FIA dans une cellule WJ à base de NASICON“
- 11/1998 – 10/2001 **PhD in Chemistry** EQF Level 8t
 PhD student, „Joseph Fourier" University, Grenoble, France, Faculty of Chemistry and Chemical Engineering, Department of Analytical Chemistry
 ▪ PhD thesis: “Réalisation et caractérisation de capteurs à ions alcalins utilisés en FIA dans une cellule WJ à base de NASICON“
- 10/1987 - 06/1992 **Chemist / Licentiate in Chemistry and Physics** EQF Level 6t
 "Babeş-Bolyai" University Cluj Napoca, Romania, Faculty of Chemistry and Chemical Engineering
 ▪ Licence thesis: Automatic tracing of electrocapillary curves
- 09/1982 – 07/1986 **Chemist Operator / High School Diploma** EQF Level 5t
 Mathematics and Physics" High School, Suceava, Romania

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
French	B2	B2	B2	B2	B2
English	B1	B2	B2	B2	B2

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 and ability to adapt to multicultural environments, gained through my PhD and Post-Doc stages in France and Sweden
- Organisational / managerial skills** ▪ Good experience in research project management gained as leader or member of research teams.
 ▪ Managerial skills concerning the quality control processes (I am responsible for the implementation of Quality Management System in the Physical-Chemical Analyses Centre)
- Job-related skills** ▪ Solid knowledge of analogical and digital electronics (design, realization, test and implementation of electronic schematics, PCBs and apparatus, especially for computer controlled electrochemical application)
- Computer skills** ▪ Microsoft Office™ (Word™, Excel™, PowerPoint™, FrontPage™), LabView™, ChemOffice™, Origin™, Corel Draw™, ORCAD™
- Other skills** ▪ Chief of Electrochemical and Environmental Analyses Laboratory from the Institute of Interdisciplinary Research in Bio-Nano-Scieces of "Babes-Bolyai" University Cluj Napoca
 ▪ Supervisor for Electrochemical Analyses (pH, conductivity, dissolved oxygen, ionometry, polarography) and spectrometric analyses (F-AAS, GF-AAS, ICP-TOF-MS)
 ▪ Quality assurance manager in the Physical-Chemical Analyses Centre from the Institute of Interdisciplinary Research in Bio-Nano-Scieces of "Babes-Bolyai" University Cluj Napoca
 ▪ Internal Auditor for Quality Management Systems in conformity with ISO 17025/2005 and ISO9001/2000 standards

Driving licence ▪ No

ADDITIONAL INFORMATION

Relevant publications (Last 5 years)

1. "EPR detection of sulfanyl radical during sulfhemoglobin formation - Influence of catalase", A.C. Mot, C. Pușcaș, **S.A. Dorneanu**, R. Silaghi-Dumitrescu, *Free Radical Biology and Medicine*, 137, **2019**, 110-115; DOI: 10.1016/j.freeradbiomed.2019.04.034.
2. "Sensors array for monitoring and automation of the electrochemical recovery of metals from waste printed circuit boards", **S.A. Dorneanu**, E. Covaci, F. Imre-Lucaci, G.L. Turdean, *Studia UBB Chemia*, LXIV, 2, Tom II, **2019**, 555-565; DOI:10.24193/subbchem.2019.2.48.
3. "Hydrogen peroxide electrosynthesis using recycled graphite granules as 3D cathode. Comparison with other commercial materials and optimization studies", A.D. Mărincean, **S.A. Dorneanu**, P. Ilea, *Revista de chimie*, 71(3), **2020**, 102-115; DOI: 10.37358/RC.20.3.7978.
4. "The strange case of polyphenols inhibiting the Briggs-Rauscher reaction: pH modulated reactivity of the superoxide radical", C. Zagrean-Tuza, S.A. Dorneanu, A.C. Mot, *Free Radical Biology and Medicine*, 146, **2020**, 189–197; DOI: 10.1016/j.freeradbiomed.2019.11.006.
5. "Review on synthesis methods to obtain LiMn2O4-based cathode materials for Li-ion batteries", A.H. Marinceș, F. Goga, **S.A. Dorneanu**, P. Ilea, *Journal of Solid State Electrochemistry*, 24, **2020**, 473-497; DOI: 10.1007/s10008-019-04467-3
6. "Dissolution of nickel in bromide-based solutions used as lixivants for waste printed circuit boards". S. Varvara, **S.A. Dorneanu**, R. Bostan, M. Popa, Al. Okos, G. Damian, P. Ilea, *Journal of Environmental Protection and Ecology*, 21(2), **2020**, 551–560; WOS:000566784600019.
7. "Dissolution of metals in different bromide-based systems: Electrochemical measurements and spectroscopic investigations". S. Varvara, **S.A. Dorneanu**, A. Okos, L.M. Muresan, R. Bostan, M. Popa, D. Marconi, P. Ilea, *Materials*, 13(16), **2020**, 3630; DOI: 10.3390/MA13163630.
8. "Selective electroextraction of base metals from leaching solutions obtained during the recycling of waste printed circuit boards. I. intensive galvanostatic electrodeposition of copper", M.I. Frîncu, E. Covaci, **S.A. Dorneanu**, P. Ilea, *Studia UBB Chemia*, LXV(3), **2020**, 33-44; DOI:10.24193/subbchem.2020.3.03.
9. "Selective electroextraction of base metals from leaching solutions obtained during the recycling of waste printed circuit boards. II. Selective potentiostatic electrodeposition of copper, tin and lead", M.I. Frîncu, E. Covaci, S.A. Dorneanu, P. Ilea, *Studia UBB Chemia*, LXVI(2), **2021**, 137-149; DOI:10.24193/subbchem.2021.2.12.
10. "Recent research related to li-ion battery recycling processes – A review", I.A. Popescu, S.A. Dorneanu, R.M. Truță, P. Ilea, *Studia UBB Chemia*, LXVII(1), **2022**, 257-280, DOI: 10.24193/subbchem.2022.1.17.
11. "Low Cost High Precision Multiple Purposes Automatic Syringe", A.D. Buburuzan, I.M. Purcar, S.A. Dorneanu, *Proceeding of 10th International Conference on Modern Power Systems (MPS)*, Cluj-Napoca, Romania, **2023**, 01-05, DOI: 10.1109/MPS58874.2023.10187589

Relevant grants and projects (Last 5 years)

- "Efficient and ecological electrochemical and chemical technologies for the advanced materials recovery from waste printed circuit boards (WPCBs) resulted from informatic and telecommunication equipments (TECRADEI)", S.A. Dorneanu - Partner responsible for the component project, Project no. 2 in the frame of the complex project: "Innovative technologies for advanced recovery of waste materials from IT and telecommunication equipment (TRADE-IT)", PN-III-P1-1.2-PCCDI-2017-0652 / 84PCCDI/2018 (2018-2020)

Presentations / Conferences

- More than 60 international presentations.
- More than 30 national presentations.