# Curriculum Vitae

## Personal information


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|---|---|
| Surname(s) / First name(s) | **Szabó Gabriella Stefánia** |
| Address(es) | 11 Arany Janos Str., 400028 Cluj-Napoca, ROMANIA |
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| Fax(es) | |
| E-mail | Gabriella.szabo@ubbcluj.ro |


## Academic training and positions

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|---|---|
| Dates | 1990 – 2002 |
| Title of qualification awarded | PhD in Chemistry |
| Name and type of organisation providing education and training | «Babeş-Bolyai» University Cluj-Napoca |
| Dates | 1981 - 1985 |
| Title of qualification awarded | Diploma in Chemistry |
| Name and type of organisation providing education and training | Faculty of Chemistry, «Babeş-Bolyai» University Cluj-Napoca |

## Work experience Teaching/research/industry

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|---|---|
| Dates | 2004- |
| Occupation or position held | *Lecturer* |
| Main activities and responsibilities | Courses: Electrochemistry, Thermodynamics, Chemical Kinetics, Colloid Chemistry, Advanced Physical-chemistry, Corrosion Science, Advanced Colloid Chemistry<br>Research activities |
| Name and address of employer | "Babes-Bolyai" University, Dept. of Chemistry and Chemical Engineering of Hungarian Line of Study, Cluj-Napoca, Romania<br>"Babes-Bolyai" University, Dept. of Physical Chemistry, Cluj-Napoca, Romania, |
| Type of business or sector | Education/Teaching |
| Dates | 1998-2004 |
| Occupation or position held | *Assistant* |
| Main activities and responsibilities | Practical works in the field of electrochemistry, chemical kinetics, thermodynamics, colloid chemistry |
| Name and address of employer | "Babes-Bolyai" University, Dept. of Physical Chemistry, Cluj-Napoca, Romania |
| Type of business or sector | Education |
| Dates | 1985-1998 |
| Occupation or position held | *Chemistry teacher* |
| Main activities and responsibilities | Teaching |
| Name and address of employer | Transport Highschool, Cluj-Napoca<br>Alexandru Roman" Highschool, Alesd, Bihor |
| Type of business or sector | Education |

## Personal skills and competences

Mother tongue(s) **Hungarian**

Other language(s)

| Self-assessment | Understanding | | Speaking | | Writing |
|---|---|---|---|---|---|
| | Listening | Reading | Spoken interaction | Spoken production | |
| **Romanian** | excellent | excellent | excellent | excellent | excellent |
| **English** | very well | very well | well | well | well |
| **Russian** | elementary | elementary | elementary | elementary | elementary |

Research stays abroad

University "Eötvös Loránd" Budapest, Hungary (1990-91)
University "József Attila" Szeged, Hungary (1990)
University of Debrecen, Hungary (2002, 2007)
University of Technology and Economics, Budapest, Hungary (2006, 2007, 2013, 2014, 2016, 2017)
Al Farabi Kazakh National University, Almaty, Kazakhstan (2017, 2018)
Universite Franch-Comte, Besancon, France (2019)

Affiliations

International Society of Electrochemistry
Romanian Society of Chemistry
Erdélyi Magyar Műszaki Tudományos Társaság
Erdélyi Múzeum Egyesület
Romanian Society of Electrochemistry

Organizational skills and competences

Head of Department of Chemistry and Chemical Engineering of Hungarian Line of Study, (2014-2020)

## Research interests

Corrosion investigation of some organic paints obtained on metallic substrates
Electrochemical characterization of thin coatings obtained with sol-gel method
Development of polymer-based anticorrosive coatings
Study of the Briggs-Rauscher oscillating reaction mechanism, application in antioxidant capacity determination
Kinetic study of reactions based on kinetic and catalytic polarographic currents

## Relevant publications
**(last 10 years)**


1. P. Márton, E. Albert, N. Nagy, B. Tegze, **G. S. Szabó**, Z. Hórvölgyi: Chemically modified chitosan coatings: wetting and electrochemical studies, *Studia UBB Chemia*, **(**2020) 65 (3), p. 63-79, DOI:10.24193/subbchem.2020.3.05.
2. Á. F. Szőke, **G. Szabó**, Z. Hórvölgyi, E. Albert, L. A. G. Végh, L. Zimányi, M. Muresan: Improved anticorrosive effect of 2-Acetylamino-5-mercapto-1,3,4-thiadiazole on zinc by accumulation in chitosan coatings. *International Journal of Biological Macromolecules* (2020), 142, p 423-431; doi.org/10.1016/j.ijbiomac.2019.09.114
3. Á. F. Szőke, **G. Szabó**, Z. Simó, Z. Hórvölgyi, E. Albert, L. M. Muresan: Chitosan coatings ionically cross-linked with ammonium paratungstate as anticorrosive coatings for zinc, *European Polymer Journal* (2019), 118, p. 205-212, DOI: 10.1016/j.eurpolymj.2019.05.057
4. **G. Szabó**, E. Albert, J. Both, L. Kócs, Gy. Sáfrán, A. Szöke, Z. Hórvölgyi, L. M. Mureşan: Influence of embedded inhibitors on the corrosion resistance of zinc coated with mesoporous silica layers, *Surfaces and Interfaces,* **(**2019*)* 15, p. 216–223, doi.org/10.1016/j.surfin.2019.03.007
5. Á. F. Szőke, **G. S. Szabó**, Z. Hórvölgyi, E. Albert, L. Gaina, L. M. Muresan: Eco-friendly indigo carmine-loaded chitosan coatings for improved anticorrosion protection of zinc substrates, *Carbohydrate Polymers* (2019**)** 215, p. 63–72, doi.org/10.1016/j.carbpol.2019.03.077
6. R. Barabás, N. Muntean, **G. Szabó,** K. Maurer**,** L. Bizo: Preparation and Characterizations of New Biomaterials by Anthocyanins Adsorption on Hydroxyapatite-Based Materials, *Studia UBB Chemia*, (2017) 62 (4) II, p. 253-268
7. N. Cotolan, S. Varvara, E. Albert, **G. Szabó**, Z. Hórvölgyi, L.-M. Mureşan: Evaluation of corrosion inhibition performance of silica sol–gel layers deposited on galvanised steel, *Corrosion Engineering, Science and Technology*, DOI: 10.1080/1478422X.2015.1120404, (2016), 51(5), p. 373-382
8. E. Albert, N. Cotolan, N. Nagy, Gy. Sáfrán**, G. Szabó**, L. Mureşan, Z. Hórvölgyi: Mesoporous silica coatings with improved corrosion protection properties, *Microporous and Mesoporous Materials* (2015) 206, p. 102-113
9. G. Szabó, E. Albert, Z. Hórvölgyi, L. Mureşan: Protective TiO2 coatings prepared by sol-gel method on Zinc, *Studia UBB Chemia*, (2015) 60 (3),
10. G. Turdean**, G. Szabó**: Determination of nitrite in meat products samples by square-wave voltammetry at a new single walled carbon naonotubes - myoglobin modified electrode, *Food Chemistry,* (2015), p. 325-330 DOI: 10.1016/j.foodchem.2015.01.106; Reference: FOCH17058
11. N. Muntean, **G. Szabó**: Commonly used raw fruit and vegetable juices overall antioxidant activity determination by means of Briggs-Rauscher reaction, *Studia UBB Chemia*, (2015) 60 (3),
12. E. Volentiru, G. Szabó, Z. Hórvölgyi, L.M. Muresan: Silica sol – gel protective coatings against corrosion of zinc substrates, *Periodica Polytechnica Ser. Chem*, (2014) 58(Sup), p. 61-66
13. N. Muntean, –G. **Szabo** :The Antioxidant Activity of Tea Infusions Tested by Means of Briggs-Rauscher Oscillatory Reaction*, Studia UBB Chemia*, (2013), 58 (2), p. 175 – 183
14. Bogya, E. S.-Czikó, M.- **Szabó, G**.- Barabás, R.: The red beetroot extract antioxidant activity and adsorption kinetics onto hydroxiapatite-based materials, *J. Iran. Chem. Soc.*, (2013) 10 (3), p. 491–503
15. Varvari, L,-**Szabo, G**.- Nicoara, A.: E. Kinetic investigation in Trolox-DPPH system, *Studia UBB Chemia*, (2010), 55 (2) TOM I, p. 189 – 197
16. Muntean, N.-Baldea, I.- **Szabó, G**.- Noszticzius, Z.: Antioxidant capacity determination by the Briggs-Rauscher oscillating reaction in flow system *Studia UBB Chemia* (2010) 55 (1) p. 121–132
17. Muntean, N.-**Szabó, G.-**Wittmann, M.-Lawson, T. .-Fülöp J.--Noszticzius, Z Onel, L:. Reaction Routes Leading to CO2 and CO in the Briggs−Rauscher Oscillator: Analogies between the Oscillatory BR and BZ Reactions*, J. Phys. Chem. A.* **(**2009) 113 (32), 9102-9108
18. Lawson, T.,-Fülöp J.,-Wittmann, M.,-Noszticzius, Z.-Muntean, N.-**Szabó, G**.-Onel, L.: Iodomalonic Acid as an "Anti" Inhibitor in the Resorcinol Inhibited Briggs-Rauscher Reaction, *J. Phys. Chem. A.* **(**2009) 113, 14095-14098.