

# Curriculum Vitae

10/21/2019

## Personal Information:

- *Name:* Szilveszter Gáspár
- *Date of Birth:* 7<sup>th</sup> of June 1973
- *Place of Birth:* Sibiu, Romania
- *Address at work:* International Center of Biodynamics, 1B Intrarea Portocalelor, 060101 Bucharest 6, ROMANIA
- *Email:* [sgaspar@biodyn.ro](mailto:sgaspar@biodyn.ro)



## Education:

- *Ph.D.:* 1999-2004, at the Dept. of Biotechnology, Lund University, Sweden, Thesis: "Amperometric biosensor-based microsystems for detecting analytes of biomedical importance", Advisor: Assoc. Prof. Elisabeth Csöregi
- *Master of Science:* 1996-1997, in "Applied Electrochemistry", Faculty of Chemistry and Chemical Engineering, "Babeş-Bolyai" University, Cluj-Napoca, Romania, Thesis: "Studies of the electrooxidation of glucose", Advisor: Dr. Virginia Danciu
- *Bachelor of Science:* 1991-1996, Faculty of Chemistry and Chemical Engineering, "Babeş-Bolyai" University, Cluj-Napoca, Romania

## Languages:

- English, Romanian, Hungarian

## Research Experience:

- *1998-2000* (3 stays of 3 months each, and several visits of few weeks) at Ruhr-Universität Bochum, Germany, Dept. of Analytical Chemistry – Electroanalysis and Sensors, working with Prof. Dr. Wolfgang Schuhmann on electroconducting polymers.
- *1998-1999* (9 months) at the Dept. of Biotechnology, Lund University, Sweden, working with Assoc. Prof. Elisabeth Csöregi on novel peroxidases for hydrogen peroxide sensors.
- *1999-2004* doctoral research at the Dept. of Biotechnology, Lund University, Sweden, working with Assoc. Prof. Elisabeth Csöregi on microsensors with biomedical applications.
- *2001* (2 and ½ months) at Inst. of Materials Science, University of Tsukuba, Japan, working with Prof. Hiroaki Suzuki on microfabrication of flow-through microdetectors.
- *2004* (2 weeks stay) at IVAX Drug Research Institute, Budapest, Hungary, working with Dr. Sziráki István on *in vivo* detection of glutamate in rats.
- *2004- 2006* post doc (research engineer) at the Dept. of Analytical Chemistry, Lund University, Sweden
- *2006-present* senior researcher at the International Center of Biodynamics, Bucharest, Romania

## Funding received (as project director/ research team leader):

- *Swedish Institute Fellowship* for 9 months, 1999, 68 400 SEK
- *European Science Foundation* grant (conference participation, April 2000) 10 000 SEK
- *Knut and Alice Wallenbergs* grant (conference participation, May 2000) 10 000 SEK
- *Nils Hörjels* research grant (research stay in Germany) 28 000 SEK
- *The Royal Physiographic Society* grant (for instrumentation) 25000 SEK
- *Sweden-Japan Foundation* grant (research stay in Japan) 35000 SEK
- *The Royal Physiographic Society* grant (conference participation) 8000 SEK
- *The Royal Physiographic Society* grant (for instrumentation) 49000 SEK

- *Knut and Alice Wallenbergs* grant (conference participation, May 2002) 10 800 SEK
- *Hakon Hannsons* grant (conference participation, July 2002) 10 000 SEK
- *NATO* Reintegration grant “Effective biosensing platform for rapid detection of environmental pollutants” 25 000 EUR
- *The National University Research Council* grant “Dual optical – electrochemical platform for the simultaneous intra- and extracellular monitoring of reactive oxygen species” 100 000 RON, 2007-2009.
- *Romanian Executive Unit for Higher Education, Research, Development and Innovation Funding* grant PN-II-RU-TE-2011-2 contract no. 0237, “Sensing using the electrochemically-triggered motion of catalytic nanomotors” 750 000 RON, 2011 – 2014.
- *Romanian Executive Unit for Higher Education, Research, Development and Innovation Funding* grant PN-II-CT-ERC-2012-1 contract no. 9, “Monitoring the extracellular space with catalytic nanomotors” 1 500 000 RON, 2012 – 2014.
- *Romanian Executive Unit for Higher Education, Research, Development and Innovation Funding* grant PN-II-ID-PCCE-2011-2 contract no. 75 “Electro-Plasmonics for analysis of the dynamics of cellular processes and biomolecular interactions” 338 392 EUR, 2013-2016.
- *Romanian Executive Unit for Higher Education, Research, Development and Innovation Funding* grant Flag-ERA contract no. 40, “Graphene-based optoelectrochemical sensor for the simultaneous monitoring of the electrical and chemical activity of single cells” 199 200 EUR, 2016 – 2018.
- *Romanian Executive Unit for Higher Education, Research, Development and Innovation Funding* grant PN-III-CERC-CO-PED-2016 contract no. 110PED/2017 “Graphene-based, miniaturized, electrochemical tool for the investigation of tumor cell pH regulation” 599 975 RON, 2017-2018.
- *Romanian Executive Unit for Higher Education, Research, Development and Innovation Funding* grant PN-III-P4-ID-PCE-2016 contract no. 113/2017 “Electrically wired redox enzymes as a way to achieve self-propulsion at nano and microscale” 850 000 RON, 2017-2019.

#### **Courses attended during Ph.D. studies:**

- „*Electroanalytical Chemistry*” by Prof. Lo Gorton and Assoc. Prof. Tautgirdas Ruzgas, 2000, 10 credits
- „*Silicon Microsensors*” by Prof. Thomas Laurell, 2000, 4 credits
- „*Advanced Analytical Chemistry*” by Prof. Lennart Mathiasson and Assoc. Prof. Curt Reimann, 2001, 10 credits
- „*Affinity Purification of Proteins*” by Prof. Rajni Hatti-Kaul, 2001, 2 credits
- „*Environmental Biotechnology*” by Dr. Ulrika Welander, 2002, 5 credits
- „*Enzyme Technology*” by Prof. Patrick Adlercreutz, Prof. Per-Olof Larsson, and Dr. Mats-Olle Månsson, 2002, 5 credits
- „*Introduction to biomolecule NMR*” by Dr. Mikael Åkke, 3 credits

#### **Training Courses attended after Ph.D. studies:**

- „*Scanning Force Microscopy: Force Spectroscopy and Imaging*” by JPK Instruments AG, Berlin, Germany, 15<sup>th</sup> – 17<sup>th</sup> of October 2008

#### **Awards**

- 2014 Young Researcher Award to participate to the “International workshop on micro- and nanomachines”, Hannover, Germany, 2-5 July 2014.
- 2017 1<sup>st</sup> Prize for the Presentation made at “The 13<sup>th</sup> edition of International Priorities of Chemistry for a Sustainable Development”, Bucharest, Romania, 25-27 October 2017.

### Supervision of students

- 2007 – 2008 1 Undergraduate Student (working at the International Centre of Biodynamics while studying at University of Bucharest, Romania)
- 2011 1 Undergraduate Student (doing a 10 weeks training session at the International Centre of Biodynamics while studying at Université de Perpignan Via Domitia, France)
- 2012 1 Undergraduate Student (doing a 10 weeks training session at the International Centre of Biodynamics while studying at Université de Perpignan Via Domitia, France)
- 2012 – 2014 2 Master Students (working at the International Centre of Biodynamics while studying at University of Bucharest, Romania)
- 2017 – 2019 1 Master Student (working at the International Centre of Biodynamics while studying at University of Bucharest, Romania)

### Others

- 2013 – present Member of the Editorial Advisory Board of Biosensors and Bioelectronics (published by Elsevier; <http://www.journals.elsevier.com/biosensors-and-bioelectronics/>).
- 2009 – present acted as reviewer for journals such as Lab-on-a-chip, Bioelectrochemistry, Current Analytical Chemistry, Mini Reviews in Medicinal Chemistry, Journal of the American Chemistry Society, ACS Applied Materials and Interfaces, Advanced Functional Materials, Chemical Communications, Electroanalysis, Journal of Agricultural and Food Chemistry, and RSC Advances.

### Publications:

#### - papers:

1. S. Gáspár, L. Muresan, A. Patrut, I. C. Popescu, "PFEW<sub>11</sub> - doped polymer film modified electrodes and their electrocatalytic activity for H<sub>2</sub>O<sub>2</sub> reduction", *Analytica Chimica Acta* (1999), 385, 111 - 117.
2. S. Gáspár, I. C. Popescu, I. G. Gazaryan, A. G. Bautista, I. Y. Sakharov, B. Mattiasson, E. Csöregi, "Biosensors based on novel plant peroxidases; a comparative study", *Electrochimica Acta* (2000), 46 (2-3), 255-264.
3. S. Gáspár, K. Habermüller, E. Csöregi, W. Schuhmann, "Hydrogen peroxide sensitive biosensor based on plant peroxidases entrapped in Os-modified polypyrrole films", *Sensors and Actuators B* (2001), 72 (1), 63-68.
4. S. Gáspár, H. Zimmerman, E. Csöregi, W. Schuhmann, "Hydrogen peroxide sensitive biosensor based on direct electron transfer from plant peroxidase immobilized on self-assembled monolayer modified gold electrodes", *Electroanalysis* (2001), 13 (4), 284-288.
5. S. Gáspár, M. Mosbach, L. Wallman, T. Laurell, E. Csöregi, W. Schuhmann, "A method for the design and study of enzyme microstructures formed by means of a flow-through microdispenser", *Analytical Chemistry* (2001), 73(17) 4254-4261.
6. I.C. Popescu, D. Gligor, V. Rosca, S. Gáspár, L. Muresan, "Electrochemical interfaces for amperometric detection of some analytes interesting for biotechnological and environmental applications" *Scientific Bulletin - University "Politehnica" of Bucharest, Series B: Chemistry and Materials Science* (2001), 63(3), 7-18
7. S. Gáspár, W. Schuhmann, T. Laurell, E. Csöregi, "Design, visualization, and utilization of enzyme microstructures built on solid surfaces", *Reviews in Analytical Chemistry* (2002), 21(4), 245-266.
8. J. Castillo, S. Gáspár, I. Sakharov, E. Csöregi, "Bienzyme biosensors for glucose, ethanol and putrescine built on oxidase and sweet potato peroxidase", *Biosensors and Bioelectronics* (2003), 18(5-6), 705-714.
9. M. Niculescu, S. Gáspár, A. Schulte, E. Csöregi, W. Schuhmann, "Visualization of micropatterned complex biosensor sensing chemistries by means of scanning electrochemical microscopy", *Biosensors and Bioelectronics* (2004), 19(10), 1175-1184.

10. J. Castillo, S. Gáspár, S. Leth, M. Niculescu, A. Mortari, I. Bontidean, V. Soukharev, S. A. Dorneanu, A. D. Ryabov, E. Csöregi, "Biosensors for life quality: Design, development and applications", *Sensors and Actuators B* (2004), 102(2), 179-194.
11. S. Gáspár, X. Wang, H. Suzuki, E. Csöregi, "Amperometric biosensor- based flow-through microdetector for microdialysis applications", *Analytica Chimica Acta* (2004), 525(1), 75-82.
12. K. Zór, S. Gáspár, M. Hashimoto, H. Suzuki, E. Csöregi, "High temporal resolution monitoring of fermentations using an on-line amperometric flow-through microdetector", *Electroanalysis* (2007), 19(1), 43-48.
13. O.M. Schuvailo, S. Gáspár, A.P. Soldatkin, E. Csöregi, "Ultramicrobiosensor for the selective detection of glutamate", *Electroanalysis* (2007), 19(1), 71-78.
14. M. Hedström, C.E. Grey, S. Gáspár, B. Mattiasson, "Miniaturized on-line digestion system for the sequential identification and characterization of protein analytes", *Journal of Chromatography A* (2007), 1146(1), 17-22.
15. E. Saatici, M. Nistor, S. Gáspár, E. Csöregi, M. Iscan, "Comparison of two glutathione S-transferases used in capacitive biosensors for detection of heavy metals", *International Journal of Environmental Analytical Chemistry* (2007), 87(10-11), 745-754.
16. L. Muresan, M. Nistor, S. Gáspár, I.C. Popescu, E. Csöregi, "Multianalyte monitoring using enzyme microstructures and Scanning Electrochemical Microscopy", *Bioelectrochemistry* (2009), 76(1-2), 81-86.
17. L. Muresan, S. Gáspár, G. Turdean, I.C. Popescu, "A simple and fast method for detecting glucose in wines using a redox polymer-based amperometric biosensor", *Revista de Chimie* (2010), 61(2), 126-129.
18. S. Gáspár, C. Niculițe, D. Cucu, I. Marcu, "Effect of calcium oxalate on renal cells as revealed by real-time measurement of extracellular oxidative burst", *Biosensors and Bioelectronics* (2010), 25(7), 1729–1734.
19. S. Gáspár, S. David, C. Polonschii, I. Marcu, M. Gheorghiu, E. Gheorghiu, "Simultaneous impedimetric and amperometric interrogation of renal cells exposed to a calculus-forming salt", *Analytica Chimica Acta* (2011), 713, 115– 120.
20. S. Gáspár, J. L. Marty, E. Gheorghiu, "Cytochrome c-based amperometric sensors for superoxide detection: Where their signal comes from?", *Electroanalysis*, (2013), 25, 448–452.
21. A.-I. Bunea, I.-A. Pavel, S. David, S. Gáspár, "Modification with Hemeproteins Increases the Diffusive Movement of Nanorods in Dilute Hydrogen Peroxide Solutions", *Chemical Communications* (2013), 49, 8803–8805.
22. A. Vasilescu, S. Gáspár, I. Mihai, A. Tache, S.C. Litescu, "Development of a Label-Free Aptasensor for Monitoring the Self-Association of Lysozyme", *Analyst* (2013), 138, 3530–3537.
23. I.-A. Pavel, A.-I. Bunea, S. David, S. Gáspár, "Nanorods with Biocatalytically Induced Self-Electrophoresis", *ChemCatChem* (2014), 6, 866–872.
24. M. Gheorghiu, S. David, C. Polonschii, A. Olaru, S. Gáspár, O. Bajenaru, B.O. Popescu, E. Gheorghiu, "Label Free Sensing Platform for Amyloid Fibrils Effect on Living Cells", *Biosensors and Bioelectronics* (2014), 52, 89–97.
25. S. Gáspár, "Enzymatically Induced Motion at Nano- and Microscale", *Nanoscale* (2014), 6, 7757–7763.
26. S. David, C. Polonschii, C. Luculescu, M. Gheorghiu, S. Gáspár, E. Gheorghiu, "Magneto-Plasmonic Biosensor with Enhanced Analytical Response and Stability", *Biosensors and Bioelectronics* (2015), 63, 525–532.
27. C. Polonschii, S. David, S. Gáspár, M. Gheorghiu, M. Rosu-Hamzescu, E. Gheorghiu, "Complementarity of EIS and SPR to Reveal Specific and Nonspecific Binding When Interrogating a Model Bioaffinity Sensor; Perspective Offered by Plasmonic Based EIS", *Analytical Chemistry* (2014), 86, 8553–8562.

28. I. Mihai, A. Vezeanu, C. Polonschii, S. David, S. Gáspár, B. Bucur, C. Blaszykowski, S. Sheikh, M. Thompson, A. Vasilescu, "Low-Fouling SPR Detection of Lysozyme and Its Aggregates", *Analytical Methods* (2014), 6, 7646–7654.
29. A.-I. Bunea, I.-A. Pavel, S. David, S. Gáspár, "Sensing Based on the Motion of Enzyme-Modified Nanorods", *Biosensors and Bioelectronics* (2015), 67, 42-48.
30. A. Veronica, A.-I. Bunea, A. Tudorache, S. Gáspár, A. Vasilescu, "Simple DPPHC-Based Electrochemical Assay for the Evaluation of the Antioxidant Capacity: a Thorough Comparison with Spectrophotometric Assays and Evaluation with Real-World Samples", *Electroanalysis* (2014), 26, 2677-2685.
31. A. Bondarenko, F. Cortes-Salazar, M. Gheorghiu, S. Gáspár, D. Momotenko, L. Stanica, A. Lesch, E. Gheorghiu, H.H. Girault, "Electrochemical push-pull probe: from scanning electrochemical microscopy (SECM) to multimodal altering of cell microenvironment", *Analytical Chemistry* (2015), 87, 4479–4486.
32. A. Vasilescu, S. Gáspár, M. Gheorghiu, S. David, V. Dinca, S. Peteu, Q. Wang, M. Li, R. Boukherroub, S. Szunerits, "Surface Plasmon Resonance based sensing of lysozyme in serum on *Micrococcus lysodeikticus*-modified graphene oxide surfaces", *Biosensors and Bioelectronics* (2017), 89, 525–531.
33. A. Vasilescu, C. Purcarea, E. Popa, M. Zamfir, I. Mihai, S. Litescu, S. David, S. Gáspár, M. Gheorghiu, J.-L. Marty, "Versatile SPR aptasensor for detection of lysozyme dimer in oligomeric and aggregated mixtures", *Biosensors and Bioelectronics* (2016), 83, 353–360.
34. A. Vasilescu, S. Boulahneche, F. Chekin, S. Gáspár, M.S. Medjram, A.A. Diagne, S.K. Singh, S. Kurungot, R. Boukherroub, S. Szunerits, Porous Reduced Graphene Oxide Modified Electrodes for the Analysis of Protein Aggregation. Part 1: Lysozyme Aggregation at pH 2 and 7.4. *Electrochimica Acta* (2017), 254, 375–383.
35. A. Vasilescu, R. Ye, S. Boulahneche, S. Lamraoui, R. Jijie, M.S. Medjram, S. Gáspár, S.K. Singh, S. Kurungot, S. Melinte, R. Boukherroub, S. Szunerits, Porous Reduced Graphene Oxide Modified Electrodes for the Analysis of Protein Aggregation. Part 2: Application to the Analysis of Calcitonin Containing Pharmaceutical Formulation. *Electrochimica Acta* (2018), 266, 364–372.
36. A. Vasilescu, A. Hayat, S. Gáspár, J.-L. Marty, Advantages of Carbon Nanomaterials in Electrochemical Aptasensors for Food Analysis. *Electroanalysis* (2018), 30 (1), 2–19.
37. R.-E. Munteanu, L. Stănică, M. Gheorghiu, S. Gáspár, Measurement of the Extracellular pH of Adherently Growing Mammalian Cells with High Spatial Resolution Using a Voltammetric pH Microsensor. *Analytical Chemistry* (2018), 10.1021/acs.analchem.8b01124.
38. R.-E. Munteanu, L. Stănică, M. Gheorghiu, S. Gáspár, Water Electrolysis Carried out on Microelectrodes as Way to Obtain New Insights into the Regulation of Cytosolic pH. *ChemElectroChem*, 2019, 6 (6), 1800–1807.
39. R.-E. Munteanu, M. N. Popescu, S. Gáspár, Glucose Oxidase Micropumps: Multi-Faceted Effects of Chemical Activity on Tracer Particles Near the Solid–Liquid Interface. *Condensed Matter* 2019, 4 (3), 73.
40. R.-E. Munteanu, R. Ye, C. Polonschii, A. Ruff, M. Gheorghiu, E. Gheorghiu, R. Boukherroub, W. Schuhmann, S. Melinte, S. Gáspár, High Spatial Resolution Electrochemical Biosensing Using Reflected Light Microscopy. *Scientific Reports* 2019, accepted for publication.

**- book chapters:**

1. E. Csöregi, S. Gáspár, M. Niculescu, B. Mattiasson, W. Schuhmann, "Amperometric enzyme-based biosensors for application in food beverage industry" in „Physics and chemistry basis of biotechnology”, *Focus on Biotechnology* series, Eds.: M. de Cyper and J.W.M. Bulte, Kluwer Academic Publishers, Dordrecht, The Netherlands, vol. 7, 2001, 105-129.

2. S. Gáspár, I. Bontidean, A. Collins, M. Niculescu, C. Nistor, V. Sukharev, A. D. Ryabov, E. Csöregi, "Design and development of third generation biosensors and their practical application" in "Recent Research Developments in Analytical Chemistry", Ed.: S. G. Pandalai, Transworld Research Network, Kerala, India, 2002, 33-59.
3. S. Gáspár, J. Castillo, E. Csöregi, "Amperometric biosensor-based microsystems for biomedical applications", in "Encyclopedia of Sensors", Ed.: C. A. Grimes, E. C. Dickey, and M.V. Pishko, American Scientific Publishers, CA, USA, 2006, Vol. 1 A-C, 105-118.
4. S. Gáspár, "Oxidative Stress: Diagnostics, Prevention, and Therapy", in "Oxidative stress: diagnostics, prevention, and therapy", Ed.: S. Andreescu and M. Hepel, American Chemical Society, 2011, vol. 1083, 289-309.
5. A. Vasilescu, W. Schuhmann, S. Gáspár, "Recent progress in the electrochemical detection of disease-related diagnostic biomarkers" in "Detection Challenges in Clinical Diagnostics", Ed.: P. Vadgama and S. Peteu, Royal Society of Chemistry, 2013, 89-128

### Conference Participations:

#### - with oral presentations:

1. S. Gáspár, I. Gazaryan, I. C. Popescu, B. Mattiasson, E. Csöregi at "Analysdagarna", Uppsala, Sweden, 14 -17 June 1999, "A comparative study of plant peroxidases immobilised in redox hydrogel"
2. S. Gáspár, I. Gazaryan, I. C. Popescu, B. Mattiasson, E. Csöregi at INCO workshop, Vilnius, Lithuania, 26 - 28 August 1999, "A comparative study of plant peroxidases immobilised in redox hydrogel"
3. S. Gáspár, R. Asai, H. Suzuki, E. Csöregi at "The 7<sup>th</sup> World Congress on Biosensors" Kyoto, Japan, 15 – 17 May 2002, "Integrated microsystem for simultaneous detection of neurotransmitters in brain"
4. S. Gáspár, T. Laurell, E. Csöregi, W. Schuhmann at "The 9<sup>th</sup> International Meeting on Chemical Sensors", Boston, USA, 7 – 10 July 2002, "Biosensing using enzyme microstructures and scanning electrochemical microscopy"
5. S. Gáspár, C. Niculițe, D. Cucu, I. Marcu, at "The XXth International Symposium on Bioelectrochemistry and Bioenergetics", Sibiu, Romania, 10 – 14 May 2009, "Effect of calcium oxalate on renal cells as revealed by a biosensor for reactive oxygen species"
6. S. Gáspár, S. David, C. Polonschii, M. Gheorghiu, E. Gheorghiu, at "The third regional symposium on electrochemistry South-East Europe", Bucharest, Romania, 13 – 17 May 2012, "Electrochemical device for the continuous, in situ monitoring of two cellular parameters and its application to the study of nephrolithiasis"
7. S. Gáspár, at "1st International Conference on Analytical Chemistry; Analytical Chemistry for a better life", Targoviste, Romania, 18-21 September 2012, "Monitoring superoxide production from in vitro cell cultures with cytochrome c-based amperometric biosensor - the advantages and the problems"
8. S. Gáspár, A.-I. Bunea, I.-A. Pavel, S. David, at "24<sup>th</sup> Anniversary World Congress on Biosensors", Melbourne, Australia, 27-30 May 2014, "Towards sensing based on the motion of enzyme-modified nanorods", INVITED.
9. S. Gáspár, at "Third Edition of the International Conference on Analytical and Nanoanalytical Methods for Biomedical and Environmental Sciences", Brasov, Romania, 13-15 June 2014, "Biosensing through the diffusive movement of oxidase-modified nanorods"
10. S. Gáspár, I. Stănică, M. Gheorghiu, at "The 13<sup>th</sup> edition of the International Symposium International Priorities of Chemistry for a Sustainable Development", Bucharest, Romania, 25-27 October 2017, Graphene- and syringaldazine-based electrochemical microsensor for monitoring the extracellular pH of living cells,

**- with poster presentations:**

1. S. Gáspár, V. Coşoveanu, V. Danciu at "Electrochemistry a Frontier of Theoretical and Practical Interest", Cluj-Napoca, Romania, 31 October - 3 November 1996, "Studies of electrooxidation of glucose"
2. L. Muresan, S. Gáspár, A. Patrut, I. C. Popescu at "ESEAC '98 The 7<sup>th</sup> European Conference on Electroanalysis", Coimbra, Portugal, 24- 28 May 1998, "Heteropolyoxotungstates doped polymer film modified electrodes and their electrocatalytic activity for H<sub>2</sub>O<sub>2</sub> reduction"
3. S. Gáspár, I. Gazaryan, B. Mattiasson, E. Csöregi at "The 50<sup>th</sup> ISE Meeting", Pavia, Italy, 5- 10 September 1999, "A comparative study of horseradish peroxidase and tobacco peroxidase immobilised in redox hydrogel"
4. S. Gáspár, W. Schuhmann, E. Csöregi at "2000- Organic Electrochemistry", Tomar, Portugal, 12- 16 April 2000, "Influence of electrostatic interactions on the characteristics of immobilized peroxidase electrodes"
5. S. Gáspár, W. Schuhmann, E. Csöregi at "Biosensors 2000 The sixth World Congress on Biosensors", San Diego, USA, 24- 26 May 2000, "Detection of hydrogen peroxide using immobilized plant peroxidases"
6. S. Gáspár, H. Suzuki, E. Csöregi at „9<sup>th</sup> International Conference in In Vivo Methods“ Dublin, Ireland, 16-19 June 2001, „Novel flow-through microcell for on-line electrochemical monitoring of neurotransmitters“
7. S. Gáspár, H. Suzuki, E. Csöregi, at "Biosensors 2008 The tenth World Congress on Biosensors", Shanghai, China, 14- 16 May 2008, "Amperometric microbiosensors for investigating cell suspensions and adherently growing cells"
8. M. Gheorghiu, S. Gáspár, S. David, G. Rius, F. Perez-Murano, E. Gheorghiu, at "7<sup>th</sup> International Symposium – Scanning Probe Microscopy in Life Sciences", Berlin, Germany, 8-9 October 2008, "Cell Adhesion on (AFM) functionalized substrates revealed by electro-optical assays"
9. L. Muresan, M. Nistor, S. Gáspár, I.C. Popescu, E. Csöregi, at "The XXth International Symposium on Bioelectrochemistry and Bioenergetics", Sibiu, Romania, 10 – 14 May 2009, "Multianalyte monitoring using enzyme microstructures and scanning electrochemical microscopy"
10. I.-A. Pavel, A.-I. Bunea, S. David, S. Gáspár, at "International workshop on micro- and nanomachines", Hannover, Germany, 2-5 July 2014, "Enzymatically enhanced movement of nanorods and its application for sensing"