Europass Curriculum Vitae

Personal information

First name(s) / Surname(s)	**Mariana / VOICESCU**
Address	Institute of Physical Chemistry "Ilie Murgulescu" 202, Spl. Independentei, Bucharest, 060021 Romania
Telephone / Fax	+40-21-3121147 Mobile: +40726245049
Date of birth	31 January 1973
E-mail / ORCID-iD	voicescu@icf.ro / http://orcid.org/0000-0003-1899-0703
ResearchGate	https://www.researchgate.net/profile/Mariana_Voicescu2

Occupational field

Scientific Research
Fluorescence Spectroscopy. Interactions in systems of biological interest

Work experience

Dates	Dec. 2014 – present
Occupation or position held	Senior Researcher II
Mail activities and responsability	Flavonoid compounds – serum proteins systems on silver nanoparticles: Synthesis and biophysical characterization
Name and address of employer	**Institute of Physical Chemistry "Ilie Murgulescu" of the Romanian Academy,** 202, Spl. Independentei, 060021, Bucharest, Romania
Type of business or sector	Scientific Research
Dates	Jan. 2009 – Nov. 2014
Occupation or position held	Senior Researcher III
Main activities and responsibilities	Flavonoid compounds – serum proteins systems on silver nanoparticles: Synthesis and biophysical characterization
Name and address of employer	**Institute of Physical Chemistry "Ilie Murgulescu" of the Romanian Academy,** 202, Spl. Independentei, 060021, Bucharest, Romania
Type of business or sector	Scientific Research
Dates	Nov. 2001 – Dec. 2008
Occupation or position held	Scientific Researcher
Main activities and responsabilities	Fluorescence and chemiluminescence studies on systems of biological interest
Name and address of employer	**Institute of Physical Chemistry "Ilie Murgulescu" of the Romanian Academy,** 202, Spl. Independentei, 060021, Bucharest, Romania
Type of business or sector	Scientific Research
Dates	Nov. 1998 – Nov. 2001
Occupation or position held	Research Assistant
Main activities and responsibilities	Photophysical and photochemical properties of luminol evidenced by spectroscopic methods
Name and address of employer	**Institute of Physical Chemistry "Ilie Murgulescu" of the Romanian Academy,** 202, Spl. Independentei, 060021, Bucharest, Romania
Type of business of or sector	Scientific Research

Fellowships / Research Stages

Subject	CNRS Research Stage
Dates	1 Dec. 2007 – 1 Dec. 2010
Organization	Louis Pasteur University, Laboratoire de Spectroscopie Vibrationnelle et Electrochimie des Biomolécules
Location	Strasbourg, France
Main activities and responsabilities	The understanding of the mechanism of enzymes from the respiratory chain using several spectroscopic techniques

Subject	Postdoctoral Fellowship
Dates	15 Oct. 2004 – 15 Oct. 2005
Organization	Department of Physical Chemistry, Paris-Sud University
Location	Orsay, France
Main activities and responsabilities	Protein oxidation by gamma radiolysis

Subject	Fellowship
Dates	7 Oct. 2003 – 12 Oct. 2003
Organization	Romanian Society of Pure and Applied Biophysics
Location	Predeal / Timisu de Sus, Romania
Main activities and responsabilities	Autumn International School "Non-invasive Biophysical Methods in Biology and Medicine

Subject	Marie Curie Fellowship
Dates	1 Feb. 2002 – 31 Jan. 2003
Organization	Department of Molecular Biology Joliot Curie (DBJC)
Location	CEA Saclay, France
Main activities and responsabilities	Characterization of the molecular structure of photoprotective xanthophylls in the light – harvesting complex of diatoms

Education and Training

Dates	1999 – 2004
Title of qualification awarded	PhD in Chemistry
Principal subjects/occupational skills covered	PhD Thesis: The study of the systems involved in oxidative stress by chemiluminescence and fluorescence methods; Supervisor: Prof. Dr. Aurelia Meghea
Name and type of organisation providing education and training	University POLITEHNICA of Bucharest, Faculty of Industrial Chemistry
Level in national or international classification	ISCED level 6

Dates	1998 – 1999
Title of qualification awarded	Master of Science in Applied Physical-Chemistry and Electrochemistry
Principal subjects/occupational skills covered	Physical - Chemistry, Physical Biochemistry, Electrochemistry
Name and type of organisation providing education and training	University POLITEHNICA of Bucharest, Faculty of Industrial Chemistry
Level in national or international classification	ISCED level 6

Dates	1993 – 1998
Title of qualification awarded	Engineer
Principal subjects/occupational skills covered	Biochemical Engineering specialization Chemistry, Physics, Physical-Chemistry, Biochemistry, Physical-Biochemistry, Recombinant DNA techniques, Chemical Engineering, Biochemical Engineering, Bioreactors, Microbiology, Cellular Biology, Enzymology
Name and type of organisation providing education and training	University POLITEHNICA of Bucharest, Faculty of Industrial Chemistry
Level in national or international classification	ISCED level 5

Personal skills and competences

Mother tongue(s): **Romanian**

Self-assessment	Understanding				Speaking				Writing	
European level (*)	Listening		Reading		Spoken interaction		Spoken production			
English	C1	proficient user	C1	proficient user	C1	proficient user	C1	proficient user	C1	proficient user
French	B2	independent user	B2	independent user	B2	independent user	B2	Independent user	B1	independent user

(*) *Common European Framework of Reference for Languages*

Social skills and competences	Team Work: five years of experience in multicultural and international environments; Good communication skills, ability to coordinate research team; Member of Romanian Society of Biochemistry and Molecular Biology (FEBS affiliated); Member of Romanian Society of Chemistry.
Organisational skills and competences	24 - years of experience in the research activity
Technical skills and Competences	Good skills for research equipment operating; • Pro – and Antioxidant Activity of Biomolecules studied by Chemiluminescence technique; • Interaction of some Biomolecules with Reactive Oxygen Species studied by chemiluminescence and fluorescence technique, HPLC; • Interactions in the biochemical systems, studied by fluorescence probe method; • Spectroscopic Studies on Protein Radicals studied by FTIR, Electrochemically induced FTIR difference spectroscopy, Electrochemically induced Fluorescence Spectroscopy; • Fluorescence Polarization Spectroscopy in Protein Analysis; Raman Spectroscopy;
Computer skills and competences	Knowledges on computing programs
Other skills and competences	Peer reviewer, in the Fluorescence Spectroscopy field, for the journals: Journal of Fluorescence; Journal of Luminescence; Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy. Journal of Physical Chemistry

Additional information

- Research activity disseminated in **90 publications (74 *ISI*-papers, 12 *non-ISI* papers** and **4 proceedings**), **1 book chapter in international volume, 83 contributions** (as author and coauthor) presented at national and international scientific conferences;

  33 *ISI-papers* as main author (AP) / **31 *ISI-papers*** as corresponding author (AC)
  IF(cumul) = 174.775; IF(AP) = 79.400; IF(AC) = 72.507

- **Hirsch index: 18** and total number of citations: **786** (**614** without self-citations) (Scopus).

- Member of the working team of the national (**18**) and international (**1**) grants won by competition;
- Member of the working team on **1** contract with third parties;
- Participation in a scholarship abroad to achieve **3** European projects;
- **Project Director** of a Research Grant financed by the Romanian National Authority for Scientific Research, CNCS - UEFISCDI, project number: PN-II-RU-TE-2012-3-0055,
  Contract No. 6/23.04.2013 "Flavone - Protein Systems Involved in Oxidative Stress Probed by Advanced Spectroscopic Methods", 2013-2016; Total budget: 645833 lei;

- **Second Prize**, *Poster section* at The Annual Meeting of Romanian Society of Biochemistry and Molecular Biology (RSBBM), Bucharest, December, 2003 for the scientific work "Photophysical and Photochemical Studies of the Riboflavin Oxidative Activity";
- **CNCSIS Award**, as author and coauthor, for **36** scientific works;
- **The Romanian Academy Award in Chemistry "Ilie Murgulescu" 2014,** for the scientific contribution on the topic "Flavones – Fluorescent Probes to some bio-nanosystems analysis";

- Oral Presentation at the XIth International Conference of Chemistry and Chemical Engineering, 30 Sept. - 2 Oct., Bucharest, Romania, 1999; (scientific work "The effect of catalyst upon the aminophtalate dianion chemiluminescence");
- Invitation at The Sulfrad Meeting, March 31-April 3, Grobothen, Germany, 2005; (scientific work "β-Amyloid peptide oxidation by reactive oxygen species: a steady-state γ-radiolysis study");
- Oral Presentation at the European Young Investigator Conference, Gniezno, Poland, 7-12 June, 2005; (scientific work "β-Amyloid peptide oxidation by reactive oxygen species: a steady-state γ - radiolysis study");
- Oral Presentation at the Meeting of the Spectroscopic Laboratories, Louis Pasteur University, Strasbourg France, 24 June, 2008; (scientific work "Spectroscopic Studies on Covalently Bond Tyrosine – Histidine").

Selected Articles

1. **M. Voicescu***, M. Heinrich, P. Hellwig, Steady – State and Time Resolved Fluorescence Analysis of Tyrosine-Histidine Model Compounds, J. of Fluorescence, 19, 257-266, 2009.
2. **M. Voicescu**, Y. El Khoury, D. Martel, M. Heinrich, P. Hellwig*, Spectroscopic Analysis of Tyrosine Derivatives: On the Role of the Tyrosine - Histidine Covalent Linkage in Cytochrome c Oxidase, J. Phys. Chem. B, 113, 13429-13436, 2009.
3. **M. Voicescu***, R. Ion, A. Meghea, Evaluation of the oxidative activity of some free base porphyrins by a chemiluminescence method, J. Serb. Chem. Soc., 75 (3), 333-341, 2010.
4. Y. El Khoury, R. Hielscher, **M. Voicescu**, J. Gross, P. Hellwig*, On the specificity of the amide VI band for secondary structure of proteins, Vibrational Spectroscopy, 55 (2), 258-266, 2011.
5. **M. Voicescu**, D. Rother, Frank Bardischewsky, C. G. Friedrich, P. Hellwig*, A combined fluorescence spectroscopic and electrochemical approach for the study of thioredoxins, Biochemistry, 50 (1), 17–24, 2011.
6. **M. Voicescu***, S. Ionescu, D. G. Angelescu, Spectroscopic and Coarse-Grained Simulation Studies of the BSA and HSA Protein Adsorption on Silver Nanoparticles, J. Nanopart. Res., vol 14, 10, 1174, DOI 10.1007/s11051-012-1174-0, 2012.
7. **M. Voicescu***, D. G. Angelescu, S. Ionescu, V.S. Teodorescu, Spectroscopic Analysis of the Riboflavin - Serum Albumins Interaction on Silver Nanoparticles, J. Nanopart. Res., vol.15, 1555, DOI:10.1007/s11051-013-1555-z, 2013.
8. **M. Voicescu***, S. Ionescu, On the fluorescence of luminol in a silver nanoparticles complex, J. of Fluorescence, 23, 569-564, DOI:10.1007/s10895-013-1204-z, 2013.
9. **M. Voicescu***, S. Ionescu, F. Gatea, Photophysical Properties of some Flavone Probes in Homogeneous Media, J. of Fluorescence, DOI: 10.1007/s10895-013-1272-0, 24 (1), 75-83, 2014.
10. **M. Voicescu***, S. Ionescu, F. Gatea, Effect of pH on the Fluorescence Characteristics of some Flavones probes, Spectrochim Acta A, DOI:10.1016/j.saa.2013.12.040, 123, 303-308, 2014.
11. **M. Voicescu***, Cristina L. Nistor, A. Meghea, Insights into the Antioxidant Activity of some Flavones on Silver Nanoparticles using the Chemiluminescence Method, J. of Luminescence, DOI: 10.1016/j.jlumin.2014.08.058, 157, 243-248, 2015.
12. **M. Voicescu***, O. Craciunescu, L. Moldovan, M. Anastasescu, D.G. Angelescu, V.S. Teodorescu, Physicochemical Characterization and in vitro Cytotoxic Effect of 3-Hydroxyflavone in a Silver Nanoparticles Complex, J. of Fluorescence, dx.doi.org/ 10.1007 / s10895- 015-1608-z, 25 (5), 1215-1223, 2015.
13. **M. Voicescu***, R. Bandula, 3, 6-diHydroxyflavone / Bovine Serum Albumin Interaction in Cyclodextrin Medium: Absorption and Emission Monitoring, Spectrochim. Acta A, DOI:10.1016/j.saa.2014.11.093, 138, 628- 636, 2015.
14. **M. Voicescu***, P. Hellwig, A. Meghea, Antioxidant Activity of Phytoestrogens types Isoflavones in Biomimetic Environments, New J Chem., DOI: 10.1039/c5nj01568e, 40, 606-612, 2016.
15. **M. Voicescu*,** S. Ionescu, J. M. Calderon-Moreno, C. L. Nistor, Physicochemical characterization of 3,6-diHydroxyflavone binding BSA immobilized on PEG-coated Silver Nanoparticles, J. Nanopart. Res., doi:10.1007/s11051-016-3727-0, 2017.
16. **M. Voicescu***, S. Ionescu, C. L. Nistor, O. Craciunescu, R. Tatia, L. Moldovan, V. S. Teodorescu, *Synthesis*, Physicochemical Characterization and Cytotoxic Properties of Riboflavin loaded Myrj52-Silver Nanoparticles, New J Chem.,DOI: 10.1039/C7NJ00571G, 2017.
17. **M. Voicescu***, S. Ionescu, S. Manoiu, M. Anastasescu, O. Craciunescu, L. Moldovan, Synthesis and biophysical characteristics of riboflavin - HSA protein on silver nanoparticles, Mat. Sci Eng C-Mater, 96, 30-40, 2019.
18. **M. Voicescu***, S. Ionescu, J. M. Calderon-Moreno, V. S. Teodorescu, M. Anastasescu, D. C. Culita, Tryptophan / Dextran70 based - Fluorescent Silver Nanoparticles: Synthesis and Physicochemical Properties, J of Fluorescence., 10.1007/s10895-019-02411-2, 2019.
19. **M. Voicescu***, O. Craciunescu, D. G. Angelescu, R. Tatia, L. Moldovan, Spectroscopic, molecular dynamics simulation and biological studies of Flavin MonoNucleotide and Flavin Adenine Dinucleotide in biomimetic systems, Spectrochim Acta A, 10.1016/j.saa.2020.118997, 2020.
20. **M. Voicescu***,On the role of pH and temperature on ground- and excited- state proton transfer of hydroxyflavones in lipidic bilayers of lecithin, J. Mol. Liq., doi:10.1016/j.molliq.2022.118696, 2022.

***Note**: * corresponding author*

The complete list of publications: https://www.scopus.com/authid/detail.uri?authorId=55967076600

Selected Conferences

1. **M. Voicescu**, M. Vasilescu, A. Meghea, Energy transfer from aminophtalate dianion to fluoresceine, 6-th International Conference on Methods and Applications of Fluorescence Spectroscopy, Paris-France, 12 -15 september, 1999.
2. **M. Voicescu**, M. Vasilescu, T. Constantinescu, A. Meghea, Chemiluminescence of luminol in DMSO in the presence of KO_2 and 18C6 crown ether. The effect of fluorescein addition, 2nd International Conference of the "Chemical Societies of the South-Eastern European Countries on Chemical Sciences for Suitainable Development" Halkidiki, Greece, 6- 9 june 2000.
3. M. Vasilescu, **M. Voicescu**, A. Meghea, The effect of KI, KBr and thiourea on the oxidative activity of riboflavin evidenced by luminescence methods, The 7th Conference on Methods and Aplications of Fluorescence: Spectroscopy, Imaging and Probes, Amsterdam, The Netherlands, 16-19 September, 2001.
4. **M. Voicescu**, G. Guglielmi, J. Lavaud, B. Rousseau, A-L Etienne, B. Robert, A. Pascal, Structure of Photoprotective xantophylls in marine diatoms, Journee SBFM, 5 Jun, Saint Remy les Chevreuse, France, 2002.
5. M.Vasilescu, **M. Voicescu,** H. Lemmetyinen, Luminol fluorescence in different solvent mixtures, The 11th Conference on Physical-Chemistry, Timisoara, Romania, 2-5 September, 2003.
6. **M. Voicescu**, J. Lavaud, A. Pascal, A-L Etienne, B. Robert, Spectroscopic analysis of photoprotective xanthophylls in the light-harvesting complex of diatoms, International School of Biophysics «Non-Invasive Biophysical Methods and their applications in Biology and Medicine», Predeal/ Timisu de Sus, Romania, 7-12 Octomber, 2003.
7. **M. Voicescu,** V. Kadlcik, F. Rusconi, C. Sicard- Roselli, C. Houee-Levin, Oxidation of β- Amyloid Peptide by reactive oxygen species, 24-th Miller Conference on Radiation Chemistry, La Londe les Maures, France, 10-15 September 2005.
8. **M. Voicescu**, N. Oueslati, A. Trivella, P. Hellwig, Spectroscopic studies on protein radicals : role of the Tyr-His covalent linkage in cytochrome c oxidase, Journee "Mitochondries" Strasbourgeoise, Strasbourg, France, 23 April, 2008.
9. V. Dinoiu, L. Lungu, M. Savoiu, **M. Voicescu**, T. Zaharescu, S. Jipa, Antioxidant activity of some natural extracts obtained by ultrasounds assisted extraction, The 11th Meeting of the European Society of Sonochemistry, La Grande – Motte, France, June 1-5, 167 - 168, 2008.
10. **M. Voicescu**, D. Martel, M. Heinrich, P. Hellwig, Cytochrome c Oxidase: Characterization of a Cross-Linked Tyrosine-Histidine, Meeting of the German Biophysical Society: Protein-Protein Interactions, Hünfeld, Germany, May 21-24, 2009.
11. **M. Voicescu**, S. Ionescu, D. Angelescu, Spectroscopic characteristics of the BSA and HSA proteins adsorption on (non) functionalized silver nanoparticles, 11th National Conference of Biophysics with International Participation, Nov. 10-12, Sibiu, Romania, 2011.
12. **M. Voicescu**, S. Ionescu, A. Meghea, Flavone - Protein Interaction in Lipidic Bilayers of Lecithin, IC3EM - 1st International Caparica Conference on Chromogenic and Emissive Materials, Caparica / Lisabona, Portugalia, 8-10 September, 2014.
13. **M. Voicescu**, Z. Boubegtiten, P. Hellwig, Spectroscopic studies on the structural changes in Human Serum Albumin upon 3-Hydroxyflavone binding immobilized on Silver Nanoparticles, The 40th FEBS Congress, The Biochemical Basis of Life, Berlin, Germany, July 4 - 9, 2015.
14. **M. Voicescu**, S. Ionescu, V.S. Teodorescu, Secondary structure of Human Serum Albumin in riboflavin loaded Myrj52-silver nanoparticles, The Annual International Conference of the Romanian Society for Biochemistry & Molecular Biology, Timisoara, Romania, 8 - 9 June, 2017.
15. **M. Voicescu**, V. S. Teodorescu, S. Ionescu, J. M. Calderon-Moreno, M. Anastasescu, D. C. Culita, Tryptophan – assisted fluorescent silver nanoparticles synthesis, The Annual International Conference of the Romanian Society of Biochemistry and Molecular Biology, Iasi, September 26-27th, Romania, 2019.

Book chapter

1. **M. Voicescu**, and P. Hellwig, *'Tyrosines in biological electron transfer'*, in "Tyrosine and Aspartic Acid: Properties, Sources and Healths Benefit", Editors Jones, J. E.; Morano, D. M., Nova Science Publishers, ISBN: 9781621007524, United States, pp. 31-56, 2012.

Note: *Figure 2 (The protonation state of the cross-linked Tyr^{280} and the kinetically resolved intermediates in the catalytic cycle of CcO) selected for the cover of the book.*

Date
12.01.2023

Signature
Mariana Voicescu