Europass Curriculum Vitae

Personal information	
First name(s) / Surname(s)	**Sorin Marius Avramescu**
Postal adress	Str. Nicolae Filimon 30, sector 6, Bucureşti 60302, România
Telephone(s)	Mobile: +40745172435
Fax(es)	
E-mail	sorin.avramescu@g.unibuc.ro; sorin_avramescu@yahoo.com
Nationality	Romanian
Date of birth	31.10.1967
Gender	male
Work experience	
Dates	2005-present
Occupation or position held	Assistant professor
Main activities and responsibilities	In charge of bachelor and master courses for Department of Organic Chemistry, Biochemistry and Catalysis (4-5/year). Courses: Waste Management, Organic pollutants in air and soil, Organic pollutants in water, Catalytic methods for purification of water and wastewater. Catalysts characterization (TG-DTA, TPD, FTIR, XRD, TEM, SEM). Analytical methods (GC, GC-MS, HPLC, ion chromatography etc). Catalysts preparation and testing
Name and address of employer	University of Bucharest, Faculty of Chemistry, Romania

Dates	1995-2019
Occupation or position held	Assistant Professor
Main activities and responsibilities	In charge of bachelor and master courses and practical works (instructional laboratory) for Department of Organic Chemistry and Department of Chemical Technology and Catalysis. Courses and practical works: General Chemical Technology, Proceeses for water and wastewater purification, Elements of heterogeneous catalysis, Advanced oxidation processes. Supervision and developement of practical works experiments for instructional laboratory. Research in catalysts preparation and catalytic processes for advanced oxidation processes, catalysts characterization (TG-DTA, TPD, FTIR, XRD). Analytical methods (GC, GC-MS, HPLC, ion chromatography etc).
Name and address of employer	University of Bucharest, Faculty of Chemistry, Romania

Education and training

Dates	1990-1994

Title of qualification awarded	License degree
Principal subjects/occupational skills covered	Title of the dissertation: “Preparation and testing of hydrogenation catalysts using active components from spent catalysts”. Activities involved: active compound recovery from spent catalysts, catalysts preparation and characterisation, catalytic tests in the selective hydrogenation of organic compounds; analysis of the reaction products by gas chromatography, correlation catalytic properties - catalytic performances.
Name and type of organisation providing education and training	University of Bucharest, Faculty of Chemistry, Romania
Level in national or international classification	First category
Dates	1999-2006
Title of qualification awarded	PhD degree
Principal subjects/occupational skills covered	Title of the thesis: ” Catalytic remediation of wastewaters contaminated with inorganic compounds” Activities involved: catalysts preparation, catalytic tests in water environment, assessment of advanced oxidation processes, oxidation of complex mixture of pollutants, physicochemical characterization of the solid: X ray diffraction, FTIR and DRIFT Spectroscopy, BET, Electron Microscopy, TG/DTA, hydrogen chemisorption.
Name and type of organisation providing education and training	University of Bucharest, Faculty of Chemistry, Romania
Level in national or international classification	First category

Personal skills and competences

Mother tongue(s): Romanian

Other language(s)

Self-assessment	**Understanding**				**Speaking**				**Writing**	
European level (*)	Listening		Reading		Spoken interaction		Spoken production			
Language	C1	english	C1	english	C1	english	C1	english	C1	english
Language	C1	french	C1	french	C1	french	C2	french	C2	french

(*) Common European Framework of Reference for Languages

Social skills and competences

- Versatile and efficient either as a team member or on independent assignments
- Desire to learn more
- Good communication skills
- Good adaptability

Organisational skills and competences

2001-present Member of the Romanian Chemical Society
2000-present Member of the Romanian Catalysis Society

Technical skills and competences

a) Teaching using multimedia tools
b) Other practical skills in fields like: computers, mechanical equipment, thermo-mechanical processes, materials, science:

- Preparation of inorganic nanomaterials and composite nanomaterials
- Heterogeneous catalysis
- Oxidation and photooxidation reactions in water and gas phase
- Removal of pollutants from water using adsorption processes
- Analytical methods: HPLC, GC, GC-MS etc.
- Determination of surface and bulk properties: BET, XRD, FTIR

Other skills and competences

Majors achievements

Projects:

- 4 national projects - as principal manager
- 14 national projects – as team member

Publications:

- 2 national patent
- 2 book chapters
- 1 book
- 28 ISI papers

Communications:

- Over 60 international conferences as oral presentations and posters

Reviewer for scientific publications:

- Catalysis Communications
- Microporous & Mesoporous Materials
- Chemical Engineering Journal
- Instrumentation Science & Technology
- Clean Technologies and Environmental Policy.

Annexes

List of publication

List of publication

Books, books chapters

1. Ion Udrea, Sorin Marius Avramescu, 2002, General Chemical Technology, Editura Ars Docendi Press, Bucharest, ISBN 973-558-054-3.
2. Chapitre XIII: Polymères réticulés de béta-cyclodextrine : complexation de substances émergentes et mécanismes d'adsorption Élise Euvrard, Nadia Morin-Crini, Corina Bradu, Sophie Gavoille, Peter Winterton, Céline Lagarrigue, Xavier Hutinet, Giuseppe trunfio, Giangiacomo Torri, Coline Druart, Amandine Poupeney, Sorin Avramescu, Sophie Fourmentin, Grégorio Crini in Cyclodextrines : propriétés, chimie et applications - Presses universitaires de Franche-Comté – Université de Franche-Comté, 370 pag, 2015, isbn 978-2848675206
3. Chapter 8: Romanian Aromatic and Medicinal Plants: From Tradition to Science by Radu Claudiu Fierascu, Irina Fierascu, Alina Ortan, Sorin Marius Avramescu, Cristina Elena Dinu-Pirvu and Daniela Ionescu in Aromatic and Medicinal Plants-Back to Nature, (2017), InTech, 296 pages, 2017, ISBN 978-953-51-2978-3

Papers

1. Sutan, N.A., Vilcoci, D.S., Fierascu, I., Neblea, A.M., Sutan, C., Ducu, C., Soare, L.C., Negrea, D., Avramescu, S.M., Fierascu, R.C., Influence of the Phytosynthesis of Noble Metal Nanoparticles on the Cytotoxic and Genotoxic Effects of Aconitum toxicum Reichenb. Leaves Alcoholic Extract (2019) Journal of Cluster Science, 30 (3), pp. 647-660.
2. N.A. Sutan, D.S. Manolescu, I. Fierascu, A.M. Neblea, C. Sutan, C. Ducu, L.C. Soare, D. Negrea, S.M. Avramescu, R.C. Fierascu, Phytosynthesis of gold and silver nanoparticles enhance in vitro antioxidant and mitostimulatory activity of Aconitum toxicum Reichenb. rhizomes alcoholic extracts, Materials Science and Engineering C, 93 (2018) 746-758.
3. R.C. Fierascu, M.I. Georgiev, I. Fierascu, C. Ungureanu, S.M. Avramescu, A. Ortan, M.I. Georgescu, A.N. Sutan, A. Zanfirescu, C.E. Dinu-Pirvu, B.S. Velescu, V. Anuta, Mitodepressive, antioxidant, antifungal and anti-inflammatory effects of wild-growing Romanian native Arctium lappa L. (Asteraceae) and Veronica persica Poiret (Plantaginaceae), Food and Chemical Toxicology, 111 (2018) 44-52.
4. Fierascu, C. Ungureanu, S.M. Avramescu, C. Cimpeanu, M.I. Georgescu, R.C. Fierascu, A. Ortan, A.N. Sutan, V. Anuta, A. Zanfirescu, C.E. Dinu-Pirvu, B.S. Velescu, Genoprotective, antioxidant, antifungal and anti-inflammatory evaluation of hydroalcoholic extract of wild-growing Juniperus communis L. (Cupressaceae) native to Romanian southern sub-Carpathian hills, BMC Complementary and Alternative Medicine, 18 (2018).
5. Fierascu, R.C. Fierascu, R. Somoghi, R.M. Ion, A. Moanta, S.M. Avramescu, C.M. Damian, L.M. Ditu, Tuned apatitic materials: Synthesis, characterization and potential antimicrobial applications, Applied Surface Science, 438 (2018) 127-135.
6. Fierascu, M.I. Georgiev, A. Ortan, R.C. Fierascu, S.M. Avramescu, D. Ionescu, A. Sutan, A. Brinzan, L.M. Ditu, Phyto-mediated metallic nano-architectures via Melissa officinalis L.: Synthesis, characterization and biological properties, Scientific Reports, 7 (2017).
7. Fierascu, S.M. Avramescu, I. Petreanu, A. Marinoiu, A. Soare, A. Nica, R.C. Fierascu, Efficient removal of phenol from aqueous solutions using hydroxyapatite and substituted hydroxyapatites, Reaction Kinetics, Mechanisms and Catalysis, 122 (2017) 155-175.
8. Fierascu, S.M. Avramescu, R.C. Fierascu, A. Ortan, G. Vasilievici, C. Cimpeanu, L.M. Ditu, Micro-analytical and microbiological investigation of selected book papers from the nineteenth century, Journal of Thermal Analysis and Calorimetry, 129 (2017) 1377-1387.
9. A.M. Florea, T.V. Iordache, C. Branger, M. Ghiurea, S. Avramescu, G. Hubca, A. Sârbu, An innovative approach to prepare hypericin molecularly imprinted pearls using a "phyto-template", Talanta, 148 (2016) 37-45.

10. R.C. Fierascu, I.M. Padure, S.M. Avramescu, C. Ungureanu, R.I. Bunghez, A. Ortan, C. Dinu-Pirvu, I. Fierascu, L.C. Soare, Preliminary assessment of the antioxidant, antifungal and germination inhibitory potential of heracleum sphondylium L. (Apiaceae), Farmacia, 64 (2016) 403-408.
11. R.C. Fierascu, S.M. Avramescu, G. Vasilievici, I. Fierascu, A. Paunescu, Thermal and spectroscopic investigation of Romanian historical documents from the nineteenth and twentieth century, Journal of Thermal Analysis and Calorimetry, 123 (2016) 1309-1318.
12. S. Comorosan, I. Farcasanu, S. Polosan, S. Avramescu, M. Apostol, E. Ionescu, L. Paslaru, I. Popescu, Protective effect of green light against the deleterious effects of UV irradiation on cellular systems, Journal of Translational Medicine and Research, 21 (2016) 193-200.
13. Ortan, I. Fierascu, C. Ungureanu, R.C. Fierascu, S.M. Avramescu, O. Dumitrescu, C.E. Dinu-Pirvu, Innovative phytosynthesized silver nanoarchitectures with enhanced antifungal and antioxidant properties, Applied Surface Science, 358 (2015) 540-548.
14. Fierascu, C. Ungureanu, S.M. Avramescu, R.C. Fierascu, A. Ortan, L.C. Soare, A. Paunescu, In Vitro Antioxidant and Antifungal Properties of Achillea millefolium L, Romanian Biotechnological Letters, 20 (2015) 10626-10636.
15. Fierascu, R.M. Ion, M. Radu, S.O. Dima, I.R. Bunghez, S.M. Avramescu, R.C. Fierascu, Comparative study of antifungal effect of natural extracts and essential oils of ocimum basilicum on selected artefacts, Revue Roumaine de Chimie, 59 (2014) 207-211.
16. J. Charles, G. Crini, N. Morin-Crini, P.M. Badot, G. Trunfio, B. Sancey, M. De Carvalho, C. Bradu, S. Avramescu, P. Winterton, S. Gavoille, G. Torri, Advanced oxidation (UV-ozone) and cyclodextrin sorption: Effects of individual and combined action on the chemical abatement of organic pollutants in industrial effluents, Journal of the Taiwan Institute of Chemical Engineers, 45 (2014) 603-608.
17. I.R. Bunghez, S.M. Avramescu, N. Marian, R. Georgeta, I. Rodica-Mariana, Obtaining of carotenoid extract from Lycium Chinense and characterization using spectometrical analysis, Digest Journal of Nanomaterials and Biostructures, 7 (2012) 523-528.
18. L. Ruta, C. Paraschivescu, M. Matache, S. Avramescu, I.C. Farcasanu, Removing heavy metals from synthetic effluents using "kamikaze" Saccharomyces cerevisiae cells, Applied Microbiology and Biotechnology, 85 (2010) 763-771.
19. C. Bradu, L. Frunza, N. Mihalche, S.M. Avramescu, M. Neaţă, I. Udrea, Removal of Reactive Black 5 azo dye from aqueous solutions by catalytic oxidation using CuO/Al2O3 and NiO/Al2O3, Applied Catalysis B: Environmental, 96 (2010) 548-556.
20. Sarbu, S.O. Dima, T. Dobre, I. Udrea, C. Bradu, S. Avramescu, N. Mihalache, A.L. Radu, T.V. Nicolescu, A. Lungu, S. Melinte, Polystyrene wastes recycling by lightweight concrete production, Revista de Chimie, 60 (2009) 1350-1356.
21. S.M. Avramescu, N. Mihalache, C. Bradu, M. Neata, I. Udrea, Catalytic ozonation of acid red 88 from aqueous solutions, Catalysis Letters, 129 (2009) 273-280.
22. I.C. Fărcăşanu, C. Paraschivescu, L. Ruţă, E. Oprea, S. Avramescu, Manipulation of NI2+tolerance of sacchromyces cerevisiae cells: A primary step to bioremediation by removal and recovery of NI2+from contaminated waters, Revue Roumaine de Chimie, 53 (2008) 647-651.
23. I.C. Farcasanu, E. Oprea, C. Paraschivescu, L. Ruta, S. Avramescu, Characterization of Saccharomyces cerevisiae mutants resistant to high concentrations of Co2+: A primary step to bioremediation by removal and recovery of Co2+ from waste waters, Revista de Chimie, 59 (2008) 1041-1044.
24. S.M. Avramescu, C. Bradu, I. Udrea, N. Mihalache, F. Ruta, Degradation of oxalic acid from aqueous solutions by ozonation in presence of Ni/Al<inf>2</inf>O<inf>3</inf>catalysts, Catalysis Communications, 9 (2008) 2386-2391.
25. S.M. Avramescu, C. Bradu, M. Neaţa, I. Udrea, Eliminarea unor coloranţi din soluţii apoase prin procedee de oxidare catalitică, Revista de Chimie, 56 (2005) 281-285.
26. Udrea, C. Bradu, S.M. Avramescu, The 2-nitrophenol removal from water by catalytic ozonation with adsorption on activated carbon granules, Revista de Chimie, 55 (2004) 877-881.
27. Udrea, S. Avramescu, Catalytic oxidation of SCN-and CN-ions from aqueous solutions, Environmental Technology, 25 (2004) 1131-1141.
28. S.M. Avramescu, F. Ruţă, C. Bradu, I. Udrea, The ozonization of orto-nitrophenol in aqueous solutions. The determination of the evolution degree of the reaction, Revista de Chimie, 55 (2004) 711-714.

Proceedings

1. C. Bradu, S.-M. Avramescu, I. Udrea, N. Mihalache, Catalytic Oxidation of 2-Nitrophenol in Aqueous Solution by Hydrogen Peroxide over Some Oxide Catalysts, Progress in Catalysis, vol. 13, nr. 1-2, 2004, p.1-12
2. "Catalytic oxidation of o-nitrophenol in aqueous solutions" – S.M. Avramescu, I. Udrea, F. Ruta, C. Bradu and I. Udrea, - Proceeding of 13th Romanian International Conference on Chemistry and Chemical Engineering, Bucuresti, p. 54-59, (2003);
3. I.Udrea, C.Danciulescu, S.Avramescu,Catalytic oxidation of dyes present in wastewater from textile industry, A XXIV-a Sesiune Nationala de Comunicari Stiintifice, Caciulata-Valcea, vol.III, p.1154-1159, (1998);
4. Thiocyanate and cyanide removal from waste waters by catalytic ozonization, I.Udrea, S. Avramescu, Proceeding of 13th International Congress of Chemical and Process Engineering, Praga, paper no. A 5 (ref no. 0111), (1998);

Patents

1. I. Udrea, C. Căpăţ, C. Bradu, E. Chiru, C. Sandu, M. Sandu, G. Racoviţeanu, M.-M. Buleandră, S.-M. Avramescu, Catalysts and processes to treat water polluted with different organic pollutants. Patents RO nr. 119694 B1, Int.Cl. Bo1J 23/00; C02 F 9/04.12.2004
2. A.Sarbu, S. Iancu, M. Duldner, S. Apostol, S-O Dima, E Ionescu, S. M. Avramescu, I. Udrea, A. Garea, T. Sandu, L. Sarbu, Ana-Mihaela Florea Molecular imprinted polymeric beads for the selective extraction of hypericin from phytoextracts RO 129825B1/2018.

Participation in research projects as manager and/or team leader:

No	Programme/Project	Position	Period
1	Calist National Program: Development and validation of atomic adsorption spectrometric analysis of heavy metals in coffee	Team member	2003 – 2005
2	Infras National Programme: Implementation of Quality System in accordance with SR EN / IEC 17025 and accreditation of a food analysis laboratory.	Team member	2003 – 2005
3	National Program Matnantech: Fibrous composites with selective enzymatic activity in depolymerization of polysaccharides	Team member	2003 – 2005
4	National Biothec Program: Covalent immobilization of enzymes in order to obtain textile materials with long term anti odor properties	Team member	2004 – 2006
5	Implementation of solvent management systems as trans-national approach to VOC's pollution reduction (SMS VOSLESS) ITERREG IIIB CADSES program	Team member	2004 – 2008
6	Excellence research - Module IV: Strengthening laboratory infrastructure in the field of food quality control in accordance with EU directives.	Team member	2005-2007

7	Excellence Research Module I: Alternative agriculture system - oriented toward organic farming	Team member	2006-2008
8	CNCSIS (1643) Manipulation of Saccharomyces cerevisiae cell tolerance toward elevated concentrations of heavy metals as a primary tool for heavy metals bioremediation	Team member	2008-2010
9	PN II-IDEAS (965) "Molecular mechanisms involved in Saccharomyces cerevisisae cell response to metals stress and oxidative stress"	Team member	2008-2010
10	PN2-PCCA (100) - Integrated process for removing nitrates and organochlorine pesticides in natural waters contaminated as a result of agricultural activities (ITEGRATREAT)	Team member	2012-2015
11	PN II PC 22-110 Core shell supramolecular architectures for applications in solar energy conversion and obtaining useful chemical compounds	Team leader	2009–2010
12	PN II PCCA (100) An integrated process for cataliticaly removing nitrates and organochlorine pesticides from natural waters contaminated as a result of agricultural activities	Team member	2012-2015
13	PN II PCCA (117) Exploitation of wild flora trough nanotechnology in order to obtain high hypericin concentrates	Team leader	2012-2015
14	PN-III-P2-2.1-PED-2016-0251 Innovative core-shell nanocomposites based on ferrite / beta-cyclodextrin to remove organic and inorganic pollutants from aqueous effluents" (NanoFerDex)	Team leader	2016-2018
15	PN-III-P2-2.1-PTE-2016-0063 Decontamination of waters containing organic compounds biodegradable (endocrine disruptors) by advanced oxidation processes using innovative catalysts	Team leader	2016-2018
16	PN-III-P2-2.1-PED-2016-1008 Development of functional model of microbial fuel cell for bioelectricity production with simultaneous municipal wastewater treatment	Team member	2016-2018
17	PN-III-P1-1.2-PCCDI-2017- 0428 Innovative nanotechnologies based on polymers for obtaining new advanced materials	Team member	2018-2020
18	Project SusMAPWaste, SMIS 104323, Grant No. 89/09.09.2016, from the Operational Program Competitiveness 2014–2020, project financed from the European Regional Development Fund. Sustainable use of waste plants and medicinal plants aromatics for the obtaining of products with added value	Team member	2014-2020