

Europass Curriculum Vitae



Personal information

First name(s) / Surname(s) **FAGADAR-COSMA GHEORGHE-REINHOLD**

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Nationality Romanian

Date of birth 08.09.1956

Gender M

Desired employment / Occupational field

Work experience

Dates 2009-present

Occupation or position held Associated professor

Main activities and responsibilities Educational activity in General Chemistry and scientific research

Name and address of employer "Politehnica" University of Timisoara, Faculty of Industrial Chemistry and Environmental Engineering, Pta Victoriei 2, 300006-Timisoara, Romania

Type of business or sector Didactical and scientific research activities

Dates 1999-2009

Occupation or position held Assistant professor

Main activities and responsibilities Educational activity in General Chemistry and scientific research

Name and address of employer "Politehnica" University of Timisoara, Faculty of Building, Traian Lalescu 2, Timisoara, Romania

Type of business or sector Didactical and scientific research activities

Dates 1983-1999

Occupation or position held Chemical engineer, scientific researcher

Main activities and responsibilities Scientific research in the field of electrochemistry (organic electrochemistry)

Name and address of employer National Institute for Research & Development for Electrochemistry and Condensed Matter, Str. Dr. A. Păunescu Podeanu, nr.144, 300569 Timișoara, România

Type of business or sector Scientific research activities

Education and training

Dates 1976-1981

Title of qualification awarded	Chemical engineer
Principal subjects/occupational skills covered	Organic Chemistry
Name and type of organisation providing education and training	„Traian Vuia” Politechnical Institute of Timișoara, Faculty of Chemical Technology, Organic Chemistry Section.
Level in national or international classification	Higher education
Dates	1990-1997
Title of qualification awarded	PhD
Principal subjects/occupational skills covered	Chemistry (Organic Electrochemistry)
Name and type of organisation providing education and training	"Politehnica" University of Timisoara
Level in national or international classification	Doctoral studies
Personal skills and competences	
Mother tongue(s)	German
Other language(s)	
Self-assessment	
European level (*)	
English	
Fench	
German	
(*) Common European Framework of Reference for Languages	
Social skills and competences	Communication and collaborative abilities in education and research activities.
Organisational skills and competences	Acquired and established during the courses of the management of educational activities and research programmes.
Technical skills and competences	Specialist in chemical and electrochemical processes.
Computer skills and competences	Good using of Windows and Microsoft Office programs and Internet facilities.
Artistic skills and competences	
Other skills and competences	Member of the Romanian Chemical Society, Romanian Electrochemical Society, Romanian Society of Applied Electrochemistry.
Driving licence	B
Additional information	Marital status: married Children: a son

Annexes

Professional results:

- 1 PhD. Thesis
- 7 books with ISBN
- 2 books for students
- 100 scientific papers published *in extenso* in recognized peer-reviewed journals:
 - 52 scientific papers in journals with impact factor (ISI indexed)
 - 48 scientific papers in journals with peer-review referent system
- 55 scientific papers published *in extenso* in peer-reviewed volumes with ISBN at international conferences
- 15 scientific papers published *in extenso* in peer-reviewed volumes with ISBN at national conferences
- 50 research programs
- 10 Romanian patents

Papers published in ISI indexed journals:

Mesoporous manganese–porphyrin–silica hybrid nanomaterial sensitive to H₂O₂ fluorescent detection

A. Lascu, A. Palade, Gheorghe Fagadar-Cosma, I. Creanga, Catalin Ianasi, Iuliana Sebarchievici, M. Birdeanu, E. Fagadar-Cosma

Materials Research Bulletin, Vol. 74, February 2016, p. 325 – 332 ISSN: 0025-5408

Hybrids formed between polyvinylpyrrolidone and an A(3)B porphyrin dye: behaviour in aqueous solutions and chemical response to CO₂ presence

E. Fagadar-Cosma, E. Tarabukina, N. Zakharova, M. Birdeanu, B. Taranu, A. Palade, I. Creanga, A. Lascu, G. Fagadar-Cosma

Polymer International, vol. 65, issue 2, Feb. 2016, p. 200-209. ISSN: 0959-8103

Zn(Ta_{1-x}Nb_x)₂O₆ nanomaterials. Synthesis, characterization and corrosion behaviour

M. Birdeanu, G. Fagadar-Cosma, I. Sebarchievici, A.-V. Birdeanu, B. Taranu, I. Taranu, E. Fagadar-Cosma

J. Serb. Chem. Soc. 81(2) 163–175 (2016) ISSN: 0352-5139

Hybrid material based on 5-(4-pyridyl)-10,15,20-tris(4-phenoxyphenyl)-porphyrin and gold colloid for CO₂ detection.

E. Fagadar-Cosma, A. Lascu, A. Palade, I. Creanga, G. Fagadar-Cosma, M. Birdeanu

Digest Journal of Nanomaterials and Biostructures, Vol. 11, No. 2, April - June 2016, p. 419 – 424, ISSN: 1842 - 3582

Corrosion Protection Efficiency of Bilayer Porphyrin-Polyaniline Film Deposited on Carbon Steel

I. Popa, E. Fagadar-Cosma, B. Taranu, M. Birdeanu, G. Fagadar-Cosma, I. Taranu

Macromol. Symp. 2015, 352, 16–24, Special Issue: Polymers and Organic Chemistry (POC-2014)

DOI: 10.1002/masy.201400137 Print ISSN: 1022-1360 Online ISSN: 1521-3900

Manganese(III) porphyrin sensitive to H₂O₂ detection

I. Creanga, A. Palade, A. Lascu, M. Birdeanu, G. Fagadar-Cosma, E. Fagadar-Cosma*

Digest Journal of Nanomaterials and Biostructures, Vol. 10, No. 1, Jan - Mar 2015, p. 315 – 321, ISSN: 1842 - 3582

Triphenylphosphine oxide detection in traces using Mn(III)-5,10,15,20-tetratolyl-21H,23H porphyrin chloride

A. Palade, A. Lascu, I. Creanga, G. Fagadar-Cosma*, M. Birdeanu, E. Fagadar-Cosma

Digest Journal of Nanomaterials and Biostructures, Vol. 10, No. 3, July – September 2015, p. 729 - 735

A Sensitive A3B Porphyrin Nanomaterial for CO₂ Detection

E. Fagadar-Cosma, D. Vlascici, G. Fagadar-Cosma, A. Palade, A. Lascu, I. Creanga, M. Birdeanu, R. Cristescu, I. Cernica

Molecules 19, 21239-21252, 2014, ISSN: 1420-3049

Novel fluorescent pH sensor based on 5-(4-carboxy-phenyl)-10,15,20-tris(phenyl)-porphyrin

E. Fagadar-Cosma, D. Vlascici, M. Birdeanu, G. Fagadar-Cosma

Arabian Journal of Chemistry, xxx, xxx-xxx, 2014, ISSN: 1878-5352

Influence of 5,10,15,20-tetrakis(4-pyridyl)-21h,23h-porphyrin on the corrosion of steel in aqueous sulfuric acid.

G. Fagadar-Cosma, B. O. Taranu, M. Birdeanu, M. Popescu, E. Fagadar-Cosma

Digest Journal of Nanomaterials and Biostructures, Vol. 9, No. 2, April - June 2014, p. 551 – 557, ISSN: 1842 - 3582

UV sensing effect in Langmuir-Blodgett complex films containing a novel synthesized Fe(III) porphyrin

L. Baschir, E. Fagadar-Cosma, I. Creanga, A. Palade, A. Lascu, M. Birdeanu, D. Savastu, V. Savu, S. Antohe, A. Velea, G.

Fagadar-Cosma, M. Popescu, I.D. Simandan

Digest Journal of Nanomaterials and Biostructures, Vol. 9, No. 2, April - June 2014, p. 847 – 857, ISSN: 1842 - 3582

Electrochemical behavior of tetra(4-methoxyphenyl) porphyrin thin films obtained by laser deposition on graphite electrode.

Popa, I., Fagadar-Cosma, G., Taranu, B. O., Birdeanu, A. V., Taranu, I., Vlascici, D., Birdeanu, M., Fagadar-Cosma, E.

Digest Journal of Nanomaterials and Biostructures, Vol. 9, No. 3, Jul - Sep 2014, p. 1277 – 1287, ISSN: 1842 - 3582

Potentiometric detection and removal of copper using porphyrins

D. Vlascici, I. Popa, V. A. Chiriac, G. Fagadar-Cosma, H. Popovici, E. Fagadar-Cosma

Chemistry Central Journal 2013, 7:111 (7 p)-open access, ISSN: 1752-153X

New hybrid silver colloid-A3B porphyrin complex exhibiting wide band absorption

I. Creanga, Fagadar-Cosma Gheorghe*, A. Palade, A. Lascu, C. Enache, M. Birdeanu, E. Fagadar-Cosma

Digest Journal of Nanomaterials and Biostructures, Vol. 8, No. 2, April - June 2013, p. 561 – 572, ISSN: 1842 – 3582

New porphyrin-based spectrophotometric sensor for Ag⁺ detection

A. Palade, Fagadar-Cosma G., A. Lascu, I. Creanga, M. Birdeanu, E. Fagadar-Cosma

Digest Journal of Nanomaterials and Biostructures, Vol. 8, No. 3, July - September 2013, p. 1013 – 1022, ISSN: 1842 - 3582

Synthesis, Spectroscopic and Self-Assembling Characterization of Novel Photoactive Mixed Aryl-Substituted Porphyrin

E. Fagadar-Cosma, G. Fagadar-Cosma*, M. Vasile, C. Enache

Current Organic Chemistry, Volume 16, Number 7, April 2012, pp.931-941, ISSN: 1385-2728 (Print), ISSN: 1875-5348 (Online)

Synthesis of New Phosphorus-Containing (Co)Polyesters Using Solid-Liquid Phase transfer Catalysis and Product Characterization.

S. Iliecu, M-G. Augusti, E. Fagadar-Cosma, N. Plesu, Fagadar-Cosma Gheorghe, L. Macarie, A. Popa, G. Ilia

Molecules, 17, 9090-9103, 2012

Annexes

- Dependence of optical response on pH of water-soluble Zn(II)-metalloporphyrin*
E. Fagadar-Cosma, I. Creanga, B. Marinescu, A. Palade, A. Lorinczi, G. Fagadar-Cosma, M. Popescu,
Digest Journal of Nanomaterials and Biostructures, Vol. 6, No 1, January-March 2011, p. 75-80. ISSN: 1842 – 3582
- Novel porphyrin-based polysiloxane micromaterial*
S. Grama, N. Hurdud, E. Fagadar-Cosma, M. Vasile, E. Tarabukina, G. Fagadar-Cosma,
Digest Journal of Nanomaterials and Biostructures, Vol. 5, No 4, October-December 2010, p. 959-973. ISSN: 1842 - 3582
- Hybrid silica-porphyrin materials with tailored pore sizes*
Z. Dudas, C. Enache, G. Fagadar-Cosma, I. Armeanu, E. Fagadar-Cosma,
Materials Research Bulletin, 45, 1150-1156, 2010. ISSN: 0025-5408
- Electrochemical Studies on 5,10,15,20-Tetrakis(4-Pyridyl)-21H,23H-Porphine and its Zn(II) Complex,*
G. Fagadar-Cosma, E. Fagadar-Cosma,
Studia Universitatis Babes-Bolyai, Chemia, LIV, Sp. Iss. 1, 143-149, 2009. ISSN 1224-7154 (p.e.), 2065-9520 (o.e.)
- The influence of pH over topography and spectroscopic properties of silica hybrid materials embedding meso-tetratolylporphyrin*
E. Fagadar-Cosma, C. Enache, I. Armeanu, D. Dascalu, G. Fagadar-Cosma, M. Vasile, I. Grozescu
Materials Research Bulletin, 44(2) February 4, 426-431, 2009. ISSN: 0025-5408
- Synthesis, Spectroscopic and AFM Characterization of Some Manganese Porphyrins and Their Hybrid Silica Nanomaterials.*
Fagadar-Cosma E., Mirica M., Balcu I., Bucovician C., Cretu C., Armeanu I., Fagadar-Cosma G.
Molecules. 14(4):1370-1388. 2009; ISSN 1420-3049
- Novel nanomaterials based on 5,10,15,20-tetrakis(3,4-dimethoxyphenyl)-21H,23H-porphyrin entrapped in silica matrices*
E. Fagadar-Cosma, C. Enache, D. Vlascici, G. Fagadar-Cosma, M. Vasile, G. Bazyak
Materials Research Bulletin, 44(2009) 2186-2193. ISSN-0025-5408
- Nanomaterials based on 3,4-dimethoxy-phenyl substituted porphyrin entrapped in silica matrix*
E. Fagadar-Cosma, C. Enache, D. Vlascici, G. Fagadar-Cosma
Journal of Porphyrins and phtalocianines, vol. 12 (3-6), 2008, 505. ISSN 1088-4246
- FT-IR, Fluorescence and Electronic Spectra for Monitoring the Aggregation Process of tetra-Pyridylporphyrine Entrapped in Silica Matrices*
E. Fagadar-Cosma, C. Enache, D. Dascalu, Gh. Fagadar-Cosma, R. Gavrilă
Optoelectronics and Advanced Materials-Rapid Communications, 2008, 2(7),437-441. ISSN: Print: 1842-6573
- Combinatorial Synthesis and Characterization of New Asymmetric Porphyrins as Potential Photosensitizers in Photodynamic Therapy*
E. Fagadar-Cosma, L. Cseh, V. Badea, G. Fagadar-Cosma, D. Vlascici
Combinatorial Chemistry & High Throughput Screening, CC&HTS, vol.10(6), 2007, 466-472. ISSN: 1386-2073
- Design of hybrid nanomaterials based on silica-porphyrin. AFM characterization*
E. Fagadar-Cosma, C. Enache, Gh. Fagadar-Cosma, C. Savii, R. Gavrilă
Journal of Optoelectronics and Advanced Materials, JOAM, vol.9(6), 2007, 1878-1882. ISSN 1454-4164
- Advanced Silica-Matrix Materials Entrapping a Hydroxy-Substituted Porphyrin Compound. Synthesis and Characterization*
E. Fagadar-Cosma, C. Savii, C. Enache, C. Ionescu, R. Radu, Gh. Fagadar-Cosma, S. Farcas
Optoelectronics and Advanced Materials – Rapid Communication, Vol.1, nr.3, March 2007, p.133-136, ISSN 1454-4164
- Comparative Investigations of the Absorption and Fluorescence Spectra of Tetrapyridylporphyrine and Zn(II) Tetrapyridylporphyrine*
E. Fagadar-Cosma, C. Enache, I. Armeanu, Gh. Fagadar-Cosma
Digest Journal of Nanomaterials and Biostructures, Vol. 2, No. 1, March 2007, p. 175–183,
- Alternative synthesis of a new asymmetric hydroxyporphyrin sensitizer. Study of absorption and fluorescence spectra.*
E. Fagadar-Cosma, O. Costisor, D. Vlascici, Gh. Fagadar-Cosma,
J. BIOL. INORG. CHEM., 12 (Suppl. 1), July 2007, pg.136. ISSN 0949-8257
- 5,10,15,20-Tetrakis(4-pyridyl)-21,23H-porphyrin-Zn(II)- iodide-selective ionophore in formulation of new polymeric membrane electrodes*
Gh. Fagadar-Cosma, D. Vlascici, E. Fagadar-Cosma
J. BIOL. INORG. CHEM., 12 (Suppl. 1), July 2007, pg. 218. ISSN 0949-8257
- Alternatives for obtaining of 5,10,15,20-tetrakis(4-hydroxyphenyl)-21H,23H-porphine. Physico-chemical characterisation*
E. Fagadar-Cosma, B. Marinescu, C. Enache, C. Savii, Gh. Fagadar-Cosma
Revista de Chimie, 57(11), 1144-1147 (2006). ISSN 0034-7752
- Synthesis, Characterization and Correlative Biological Effects in Wheat of a Benzoxaza- and a Diaza- Phosphorus(V) Heterocycles*
E. Fagădar-Cosma, M. Laichici, G. Făgădar-Cosma, D. Vlascici
Journal of The Serbian Chemical Society, 71(10), 1031-1038 (2006). ISSN 0352-5139
- Studiu asupra reacției de oxidarea electrochimică a leucobazei verdelui malachit*
G. Făgădar-Cosma, E. Făgădar-Cosma, I. Țăranu
Revista de Chimie- București, 56(11), 1178-1181 (2005). ISSN 0034-7752
- Chlorophylls a and b content development in wheat treated with a phosphonium compound*
E. Fagadar-Cosma, G. Fagadar-Cosma, M. Laichici, D. Vlascici
Agrochimica, vol IL - N. 1-2, Gennaro-Aprile, 2005, p. 51-59 (Pisa).ISSN 0002-1857
- Synthesis and Auxinic Behavior of 2-Ethyl-2- isopropyl—3,5-dimethyl-1, 4, 2-diazaphosphorine 2-Oxide*
E. Făgădar-Cosma, G. Făgădar-Cosma, M. Laichici
Acta Chim. Slov., 52(1)93-97(2005). ISSN 1318-0207

Annexes

- Iodotriphenylphosphonium Triiodide. Ir, ¹H-NMR, ³¹P-NMR, UV-VIS Spectroscopy and HPLC Investigations.*
E. Făgădar-Cosma, B. Maranescu, G. Făgădar-Cosma, C. Cozmiuc
Revista de Chimie- București, 56(9) 947-950 (2005). ISSN 0034-7752
- Studies about the electrochemical oxidation of triphenylphosphine in the presence of AgNO₃*
G. Făgădar-Cosma, E. Făgădar-Cosma, I. Tăranu
Revue Roumaine de Chimie, 50(4), 291-296 (2005) ISSN: 0035-3930
- About n-Propanol Oxidation on NiOOH Electrode.*
I.Tăranu, E.Făgădar-Cosma, G.Făgădar-Cosma
Revue Roumaine de Chimie, vol.49(5), 475-485 (2004), ISSN 0035- 3930
- Studiul proprietăților chimice ale alchil și arildiclorofosfinelor. III. Nou compus heterociclic al fosforului obținut din p-tolildiclorofosfină. Sinteză, caracterizare și activitate biologică.*
E. Făgădar-Cosma, Gh. Făgădar-Cosma
Revista de Chimie 55 (5), 338-340, (2004). ISSN 0034-7752
- Studiu asupra comportamentului electrochimic al metalo- porfirinelor cu Co(II) și Co(III) . Electrod nitrit-selectiv pe bază de clorură de [5,10,15,20-tetrafenil-21H,23H-porfirin-N21,N22,N23,N24] cobalt(III)*
E. Făgădar-Cosma, D. Vlascici, Gh. Făgădar-Cosma, O. Spiridon-Bizerea, A. Chiriac
Revista de Chimie, 55(11), 882-885 (2004). ISSN 0034-7752
- Studies about Synthesis, Characterization and the Effect of 2-n-Propyl-3-ethyl-3-methyl-1,4,2-benzoxaza-phosphorine-2-oxide on Growth Parameters and Chlorophyll Content of Wheat,*
E.Făgădar-Cosma, G.Ilia, G. Făgădar-Cosma, G.Istrățucă, D.Vlascici, O. Bizerea,
Phosphorus, Sulfur and Silicon and the Related Elements, 179(9), 1673-1680 (2004). ISSN : 1042-6507
- Electrochemical Oxidation of Sodium Ethylxanthate*
G.Făgădar-Cosma, I.Tăranu, E.Făgădar-Cosma
Revue Roumaine de Chimie, vol.48(2), 131-136 (2003), ISSN 0035-3930
- Studiul proprietăților chimice ale alchil și arildiclorofosfinelor. II. Sinteze de monofosfine terțiare nesimetrice*
E.Făgădar-Cosma, G.Făgădar-Cosma
Revista de chimie, 54(1), 77-79 (2003), ISSN 0034-7752
- (p-Tolyl)Dichlorophosphine and Di(p-Tolyl)Chlorophosphine – Source of New Organophosphorus(III) and (V) Compounds*
E.Făgădar-Cosma, G.Făgădar-Cosma
Revue Roumaine de Chimie, vol.48(3), 211-217 (2003), ISSN 0035-3930.
- Studiul proprietăților chimice ale alchil și arildiclorofosfinelor. I. Noi compuși heterociclici ai fosforului(V) – sinteză și caracterizare*
E.Făgădar-Cosma, D.Rotaru, P.Soimu, L.Ostopovici, G.Făgădar-Cosma, V.Badea, C.Csunderlik
Revista de chimie, 53(7), 504-507 (2002), ISSN 0034-7752
- Synthesis of Some New Optically Active Amino- and Alkoxy- Tertiary Monophosphines*
E. Făgădar -Cosma, Gh. Făgădar -Cosma, I. Tăranu, S. Iliescu, M. Grozav
Revue Roumaine de Chimie, vol.46(10), 1133-1138 (2001). ISSN 0035-3930.
- Investigation of Dextran 2000-5000 Oxidation by Electrochemically Generated Iodine Using the Controlled Potential Coulometry Method.*
G.Făgădar-Cosma, Eugenia Făgădar-Cosma, I.Tăranu.
Revue Roumaine de Chimie, vol.44(6), 1999, 549-553. ISSN 0035-3930.
- Alegerea materialului electrozilor la oxidarea electrochimică a etilxantogenatului de sodiu din soluții apoase utilizate la flotația minereurilor.*
I.Tăranu, Gh.Făgădar-Cosma, N.Vaszilcsin, I.Rădoi.
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- Reactor electrochimic "sandwich" necompartimentat pentru sinteze organice.*
N.Vaszilcsin, I.Rădoi, I.Tăranu, Gh.Făgădar.
Revista de Chimie, vol.46(nr.3),p.219 (1995). ISSN 0034-7752
- Oxidarea dextranului 2000-5000 cu iod generat electrochimic*
Gh.Făgădar-Cosma, I.Rădoi.
Revista de Chimie vol.44(nr.11),p.961 (1993). ISSN 0034-7752

Timisoara, 16.12.2016