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## **MEET THE GUEST EDITOR**

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Eugenia Fagadar-Cosma is Senior Researcher and Head of Organic Chemistry Department at Institute of Chemistry Timisoara of Romanian Academy. She has degrees in chemical engineering from the "Traian Vuia" Politechnical Institute of Timisoara, Faculty of Chemical Technology, Organic Chemistry Section (Dipl. eng. 1981) and PhD, with a thesis entitled "Contributions to the Chemistry and Applications of Phosphines" (1997). She collaborated as Associated Professor at Politechnical Institute Timisoara, Faculty of Chemical and Environmental Engineering (1997-1998; 2005-2007) and at West University of Timisoara, Faculty of Chemistry-Biology-Geography (1998-2006). Eugenia Fagadar-Cosma is currently focused on research regarding the design, synthesis and characterization of symmetric and asymmetric substituted mesotetraarylporphyrins and of derived advanced hybrid porphyrin-inorganic micro and nanomaterials and of their evaluation as electroactive materials for construction of sensors, potential photosensitizers in PDT and in formulation of photovoltaic cells. She is the principal author or co-author of 5 books, 1 book chapter, over 150 published papers and conference proceedings, 115 conference presentations, and 5 patents based on the study of phosphines and porphyrins. Some of these reports were cited in prestigious journals: J. of Colloid and Interface Science, J. of Serbian Chemical Society, Annali di Chimica, Revue Roumaine de Chimie, Journal of Optoelectronics and Advanced Materials, Tetrahedron, Polymer, Sensors, series of books Organophosphorus Chemistry, Combinatorial Chemistry, Journal of Organic Chemistry, Journal of Polymer Science Part A: Polymer Chemistry, Between years 2000-2008 she was coordinator for 5 Projects of National Programs of Research and Development and collaborator at 6 grants issued by the Romanian Ministry of Research and Technology and 2 Bilateral Research Joint Schemes. In recognition of academic achievement, Eugenia Fagadar-Cosma is reviewer at some chemistry journals: Pure and Applied Chemistry, Journal of Optoelectronics and Advanced Materials, Electrochimica Acta, Recent Patents on Inflammation & Allergy Drug Discovery, Desalination, expert evaluator for the National Excellence Programs (since 2005), Expert evaluator for the Innovation Programme and she is member of Romanian Society of Chemistry, International Society of Biological Inorganic Chemistry and Multidisciplinary Research Association: Romania – Hungary – Yugoslavia. Some honours are the second prize of Romanian Authority for Science and Technology for research and developments projects and three of the patents were awarded with gold medals and Diploma of Excellence at International Exhibitions Pro Invent (Cluj-Napoca), CNCIR (Bucharest) and 37<sup>th</sup> Inventions Exhibition (Geneva).

## SELECTED PUBLICATIONS

- [1] <u>E. Fagadar-Cosma,</u> C. Enache, I. Armeanu, D. Dascalu, G. Fagadar-Cosma, M. Vasile, I. Grozescu, The influence of pH over topography and spectroscopic properties of silica hybrid materials embedding meso-tetratolylporphyrin, *Mater. Res. Bull.*, **2009**, *44*, 426-431.
- [2] D. Vlascici, <u>E. Fagadar Cosma</u>, E. Maria Pica, V. Cosma, O. Bizerea, G. Mihailescu, L. Olenic, Free Base Porphyrins as Ionophores for Heavy Metal Sensors, *Sensors*, 2008, 8, 4995-5004.
- [3] <u>E. Fagadar-Cosma</u>, C. Enache, D. Dascalu, G. Fagadar-Cosma, R. Gavrila, FT-IR, fluorescence and electronic spectra for monitoring the aggregation process of tetra-pyridylporphyrine entrapped in silica matrices, *Optoelectron. Adv. Mater. Rapid Commun.*, **2008**, *2* (7), 437-441.
- [4] E. Fagadar-Cosma, L. Čseh, V. Badea, G. Fagadar-Cosma, D. Vlascici, Combinatorial Synthesis and Characterization of New Asymmetric Porphyrins as Potential Photosensitizers in Photodynamic Therapy, Comb. Chem. High Throughput Screening, 2007, 10, 466-472.
- [5] <u>E. Fagadar-Cosma,</u> C. Enache, G. Fagadar-Cosma, C. Savii, Design of hybrid nanomaterials based on silica-porphyrin. AFM characterization, J. Optoelectron. Adv. Mater., 2007, 9(6), 1878-1882.
- [6] <u>E. Fagadar-Cosma</u>, O. Costisor, D. Vlascici, G. Fagadar-Cosma, Alternative synthesis of a new asymmetric hydroxyporphyrin sensitizer. Study of absorption and fluorescence spectra, J. Biol. Inorg. Chem., 2007, 12 (Suppl. 1), S136.
- [7] <u>E. Fagadar-Cosma</u>, C. Enache, I. Armeanu, G. Fagadar-Cosma, Comparative investigations of the absorption and fluorescence spectra of tetrapyridylporphyrine and Zn(II) tetrapyridylporphyrine, *Digest J. Nanomater. Biostruct.*, **2007**, *2(1)*, 175-183.
- [8] D. Vlascici, <u>E. Fagadar-Cosma</u>, O. Bizerea-Spiridon, A new composition for Co(II)-porphyrin-based membranes used in thiocyanate-selective electrodes, *Sensors (Basel)*, 2006, 6(8), 892-900.
- [9] <u>E. Făgădar-Cosma</u>, M. Laichici, G. Făgădar-Cosma, D. Vlascici, Synthesis, Characterization and Correlative Biological Effects in Wheat of a Benzoxaza- and a Diaza- Phosphorus(V) Heterocycles, *J. Serb. Chem. Soc.*, **2006**, *71(10)*, 1031-1038.
- [10] <u>E. Făgădar-Cosma</u>, G. Fagadar-Cosma, M. Laichici, D. Vlascici, Chlorophylls a and b Content Development in Wheat Treated with a Phosphonium Compound, *Agrochimica (Pisa)*, 2005, *IL*, *N*. 1-2, 51-59.
- [11] <u>E. Făgădar-Cosma,</u> G. Făgădar-Cosma, M. Laichici, Studies on the Synthesis, Characterization and Auxinic Behavior of 2-i-Propyl-3-Ethyl-3-Methyl-5-Methyl-1, 4, 2-Diazaphosphorine-2-Oxide, *Acta Chim. Slov.*, 2005, *52(1)*, 93-97.
- [12] <u>E. Făgădar-Cosma,</u> G. Ilia, G. Făgădar-Cosma, D. Vlascici, O. Bizerea, G. Istrătucă, 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 Contentof Wheat, *Phosphorus Sulfur Silicon Relat. Elem.*, 2004, 179(9), 1673-1680.