

### ISI Publications

1. **C. Berghian-Grosan**, T. Radu, A. R. Biris, M. Dan, C. Voica, F. Watanabe, A. S. Biris, A. Vulcu, Platinum nanoparticles coated by graphene layers: A low-metal loading catalyst for methanol oxidation in alkaline media, *J. Energ. Chem.* 40 (2020) 81-88
2. A. Turza, A.M.R. Gherman, V. Chis, **C. Berghian-Grosan**, G. Borodi, Structural, spectroscopic and theoretical studies of sodium (2-carbamoylphenoxy) acetate salt, *J. Mol. Struct.* 1200 (2020) 127016
3. C. Muller Molnar, **C. Berghian-Grosan**, D. A. Magdas, An optimized green preparation method for the successful application of Raman spectroscopy in honey studies, *Talanta* (2019) *article in press*
4. O. Grad, M. Mihet, M. Dan, G. Blanita, T. Radu, **C. Berghian-Grosan**, M. D. Lazar, Au/reducedgraphene oxidecomposites: eco-friendly preparation method and catalytic applications for formic acid dehydrogenation, *J. Mater. Sci.* 54 (2019) 6991-7004
5. M. Karabulut, A. Popa, **C. Berghian-Grosan**, H. Ertap, M. Yüksek, S. Tokdemir Öztürk, R. Stefan, On the structural features of iron-phosphate glasses by Raman and EPR: Observation of superparamagnetic behavior differences in HfO<sub>2</sub> or CeO<sub>2</sub> containing glasses, *J. Mol. Struct.* 1191 (2019) 59-65
6. A. Bunge, A. S. Porav, Gh. Borodi, T. Radu, A. Pirnau, **C. Berghian-Grosan**, R. Turcu, Correlation between synthesis parameters and properties of magnetite clusters prepared by solvothermal polyol method, *J. Mat. Sci.* 54 (2019) 2853-2875
7. A. Vulcu, A. R. Biris, Gh. Borodi, **C. Berghian-Grosan**<sup>\*</sup>, Interference of ascorbic and uric acids on dopamine behavior at graphene composite surface: An electrochemical, spectroscopic and theoretical approach, *Electrochim. Acta* 282 (2018) 822-834
8. A. Vulcu, L. Olenic, G. Blanita, **C. Berghian-Grosan**<sup>\*</sup>, Noble-Metal-Free Anode Material Based on Metal-Organic-Framework for Methanol Oxidation, *Electrochim. Acta* 219 (2016) 630-637
9. A. Vulcu, C. Berghian Grosan, L. Muresan, S. Pruneanu, L. Olenic, The reductive amination of  $\alpha$ -ketoisocaproic acid using a leucine dehydrogenase-modified gold electrode, *Particul. Sci. Technol.* 34 (2016) 96-102
10. **C. Berghian-Grosan**<sup>\*</sup>, A. R. Biris, M. Coros, F. Pogacean, S. Pruneanu, Electrochemical and spectroscopic studies of ssDNA damage induced by hydrogen peroxide using graphene based nanomaterials, *Talanta* 138 (2015) 209-217
11. **C. Berghian-Grosan**<sup>\*</sup>, L. Olenic, G. Katona, M. Perde-Schrepler, A. Vulcu, L-leucine for gold nanoparticles synthesis and their cytotoxic effects evaluation, *Amino Acids* 46 (2014) 2545-2552

12. M. Crisan, L. David, B. Moldovan, A. Vulcu, S. Dreve, M. Perde-Schrepler, C. Tatomir, A. G. Filip, P. Bolfa, M. Achim, I. Chiorean, I. Kacso, **C. Berghian Grosan**, L. Olenic, New nanomaterials for the improvement of psoriatic lesions, *J. Mater. Chem. B* 1 (2013) 3152-3158
13. A. Vulcu, **C. Grosan**, L. M. Muresan, S. Pruneanu, L. Olenic, Modified gold electrodes based on thiocytosine/guanine-gold nanoparticles for uric and ascorbic acid determination, *Electrochim. Acta* 88 (2013) 839-846
14. **C. Berghian Grosan\***, C. Varodi, A. Vulcu, L. Olenic, S. Pruneanu, V. Almasan, Structural and electrochemical characterization of novel leucine-gold nanoparticles modified electrode, *Electrochim. Acta* 63 (2012) 146-152
15. S. Pruneanu, F. Pogacean, **C. Grosan**, E. M. Pica, L. C. Bolundut, A. S. Biris, Electrochemical investigation of atenolol oxidation and detection by using a multicomponent nanostructural assembly of amino acids and gold nanoparticles, *Chem. Phys. Lett.* 504 (2011) 56-61
16. **C. Berghian Grosan**, V. Almasan, Structure and vibrational spectrum of L-Leucine: A DFT-PCM investigation, *Studia UBB Chemia* 56 (2011) 199-210
17. A. Vulcu, **C. Berghian Grosan**, M. Chiriac, V. Almasan, The <sup>15</sup>N labelled L-glutamic acid: Experimental and computational NMR studies, *Rev. Roum. Chim.* 56 (2011) 667-674
18. M. Pinteá, M. Fazekas, P. Lameiras, I. Cadis, **C. Berghian**, I. Silaghi-Dumitrescu, F. Popa, C. Bele, N. Plé, M. Darabantu, Serinolic amino-s-triazines: iterative synthesis and rotational stereochemistry phenomena as N-substituted derivatives of 2-aminopropane-1,3-diols, *Tetrahedron* 64 (2008) 8851-8870
19. M. Fazekas, M. Pinteá, P. Lameiras, A. Lesur, **C. Berghian**, I. Silaghi-Dumitrescu, N. Plé, M. Darabantu, Serinolic amino-s-triazines: Iterative synthesis of N-substituted amino-1,3-dioxane derivatives from 1-(pnitrophenyl)serinols and rotational stereochemistry phenomena, *Eur. J. Org. Chem.* 2008 (2008) 2473-2494
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21. **C. Berghian**, E. Condamine, N. Plé, A. Turck, I. Silaghi-Dumitrescu, C. Maieréanu, M. Darabantu,  $\alpha$ -(3,7-Dioxa-r-1-azabicyclo[3.3.0]oct-c-5-ylmethoxy)-diazines. Part 2: Functionalisation via directed orthometallation and cross-coupling reactions, *Tetrahedron* 62 (2006) 7339-7354
22. M. Darabantu, M. Pinteá, M. Fazekas, P. Lameiras, **C. Berghian**, I. Delhom, I. Silaghi-Dumitrescu, N. Plé, A. Turck, First synthesis of a G-2 melamine dendrimer with serinolic peripheral groups, *Lett. Org. Chem.* 3 (2006) 905-910

23. M. Pinteă, M. Darabantu, M. Fazekas, P. Lameiras, **C. Berghian**, I. Delhom, C. Bele, N. Plé, First synthesis, rotamerism and herbicidal evaluation of substituted s-triazines with serinolic fragment, *Heterocycl. Commun.* 12 (2006) 135-140
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25. **C. Berghian**, M. Darabantu, A. Turck, N. Plé, Metallation of pyridin-2-yl diazines. Use of pyridine ring as ortho-directing group. Diazines. Part 45, *Tetrahedron* 61 (2005) 9637-9644
26. **C. Berghian**, M. Darabantu, P. Lameiras, N. Plé, A. Turck, First examples of the conformation chirality of heterobicyclo[3.3.0] octanes: 3,7-Dioxa-r-1-azabicyclo[3.3.0]oct-5-yl-methoxypyrazines, *Heterocycl. Commun.* 11 (2005) 517-522
27. C. Maierăanu, M. Darabantu, E. Condamine, G. Plé, Y. Ramondenc, M. Fazekas, M. Pinteă, **C. Berghian**, First example of long distance stereocontrolled synthesis in 1-aza-3,7-dioxabicyclo[3.3.0]octane series, *Heterocycl. Commun.* 11 (2005) 305-310
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29. C. Maierăanu, M. Darabantu, G. Plé, Y., Ramondenc, **C. Berghian**, Ring-ring tautomerism of some spirooxazolidines derived from 1-phenylserinols, *Rev. Roum. Chim.* 50 (2005) 29-40
30. M. Darabantu, C. Maierăanu, I. Silaghi-Dumitrescu, L. Toupet, E. Condamine, Y. Ramondenc, **C. Berghian**, G. Plé, N. Plé, 3,7-Dioxa-1-azabicyclo[3.3.0]octanes substituted at the C-5 position - From local to global stereochemistry, *Eur. J. Org. Chem.* 2004 (2004) 2644-2661
31. C. Maierăanu, M. Darabantu, G. Plé, **C. Berghian**, E. Condamine, Y. Ramondenc, I. Silaghi-Dumitrescu, S. Mager, Ring-chain tautomerism and other versatile behaviour of 1,4-diimino- and 1,2-phenylene derivatives of some C substituted serinols, *Tetrahedron* 58 (2002) 2681-2693
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33. F. Popa, I. Simioanca, M. Pinteă, M. Fazekas, L. Gratecap, **C. Berghian**, C. Batiu, M. Darabantu, Synthesis of New Potential Dendritic Cores: (4-oxopiperidin-1-yl)-s-triazines, *Studia UBB Chemia* 53 (2008) 5-13

### ISI conference proceedings

34. S. Macavei, D. Toloman, M. Stefan, A. Popa, L. Barbu-Tudoran, **C. Grosan**, R. Suci, O. Pana, R. Balan, Characterization of Cu<sub>2</sub>ZnSnS<sub>4</sub> thin film deposited by pulse laser deposition, *AIP Conference Proceedings* 1917 (2017) 040010
35. **C. Berghian-Grosan**, A.R. Biris, S. Pruneanu, M.D. Lazar, F. Pogacean, F. Watanabe, A.S. Biris, Electrochemical oxidation of adenine on graphene-platinum nanoparticles modified electrode, *AIP Conference Proceedings* 1565 (2013) 219-223
36. A. Vulcu, S. Pruneanu, **C. Berghian-Grosan**, L. Olenic, L.M. Muresan, L. Barbu-Tudoran, Impedimetric investigation of gold nanoparticles - Guanine modified electrode, *AIP Conference Proceedings* 1565 (2013) 273-277
37. L. Olenic, A. Vulcu, I. Chiorean, M. Crisan, **C. Berghian-Grosan**, S. Dreve, L. David, L.B. Tudoran, I. Kacso, I. Bratu, C. Neamtu, C. Voica, Effect of natural extracts pH on morphological characteristics of hybrid materials based on gold nanoparticles, *AIP Conference Proceedings* 1565 (2013) 238-242
38. S. Pruneanu, L. Olenic, F. Pogacean, L.B. Tudoran, V. Canpean, A., Vulcu, **C. Grosan**, A.S. Biris, Nanostructures based on metallic nanoparticles and biomolecules, *AIP Conference Proceedings* 1425 (2012) 144-147
39. C. Bele, M. Darabantu, C.T. Matea, M. Pinte, M. Fazekas, **C. Berghian**, Effects of two new N-substituted 2-chloro-4,6-diamino-s-triazines with herbicidal activity on Lemna minor, *Bulletin of the University of Agricultural Science and Veterinary Medicine-Agriculture* 61 (2005) 194-196. ISSN 1843-5246
40. C. Bele, M. Darabantu, E. Muntean, M. Pinte, M. Fazekas, **C. Berghian**, D. Lazar, Influence of new N-substituted 2-chloro-4,6-diamino-1,3,5-triazines on foliar galactolipids in Raphanus sativus L. and Cucumis sativus L., *Bulletin of the University of Agricultural Sciences and Veterinary Medicine-Agriculture* 60 (2004) 35-38. ISSN 1843-5246

### BDI-indexed journals (accredited by CNCSIS)

41. **C. Berghian**, N. Plé, A. Turck, M. Darabantu,  $\alpha$ -(3,7-Dioxa-r-1-azabicyclo[3.3.0]oct-c-5-ylmethoxy)-diazines (II): Functionalisation via Directed *ortho*-Metallation and Cross-Coupling Reactions, *Studii si Cercetari Stiintifice-Chimie si Inginerie Chimica, Biotehnologii, Industrie Alimentara* VII (2006) 33-50. ISSN 1582-540X (CNCSIS, rank B+)
42. **C. Berghian**, N. Plé, A. Turck, M. Darabantu,  $\alpha$ -(3,7-Dioxa-r-1-azabicyclo[3.3.0]oct-c-5-ylmethoxy)-diazines (I): Synthesis and Stereochemistry. Extention in s-Triazine Series, *Studii si Cercetari Stiintifice-Chimie si Inginerie Chimica, Biotehnologii, Industrie Alimentara* VII (2006) 13-32. ISSN 1582-540X (CNCSIS, rank B+).

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44. M. Fazekas, M. Darabantu, M. Pinteá, P. Lameiras, C. Bele, **C. Berghian**, N. Plé, First Synthesis, Rotamerism and Herbicidal Evaluation of Substituted s-Triazines with Serinolic Fragment (II): Amino-1,3-Dioxanes of (1S,2S)-p-Nitrophenylserinols, *Studia UBB Chemia* 1 (2005) 219-228. ISSN 1224-7154 (CNCSIS, rank A).
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46. **C. Berghian**, C. Maieréanu, N. Plé, A. Turck, E. Condamine, M. Darabantu, First Example of 1-Aza-3,7-dioxabicyclo[3.3.0]octane-5-yl-methoxy System as Directed Ortho-Metallation Group, *Studia UBB Chemia* 2 (2003) 127-138. ISSN 1224-7154 (CNCSIS, rank A).
47. **C. Berghian**, C. Maieréanu, N. Plé, G. Plé, M. Darabantu, First Example of Selective Nucleophilicity of 1-Aza-5-hydroxymethyl-3,7-dioxabicyclo[3.3.0]octanes in Alkoxide Form, *Studia UBB Chemia* 2 (2003) 113-125. ISSN 1224-7154 (CNCSIS, rank A).
48. C. Maieréanu, I. Silághi-Dumitrescu, **C. Berghian**, M. Pinteá, M. Fazekas, M. Darabantu, Stereocontrolled Synthesis by Anomeric Effects of Substituted 1-Aza-3,7-dioxabicyclo [3.3.0]octanes, *Studia UBB Chemia* 2 (2003) 103-111. ISSN 1224-7154 (CNCSIS, rank A).

### Books/chapters

49. L. Olenic, M. Crisan. A. Vulcu, **C. Berghian-Grosan**, D. Crisan, I. Chiorean, **Chapter 18: Green nanomaterials for psoriatic lesions in Nanomaterials and Regenerative Medicine**, Yunfeng Lin, Tao Gong (Eds), IAPCB-OBP, Zagreb, Croatia, 2016, 477-508.

### Patents

50. L. Olenic, A. Vulcu, **A. C. Grosan**, S. Dreve, Production process of hybrid materials based on gold nanoparticles and anthocyanins. Patent no. RO130210 B1 (30.07.2018)
51. L. Olenic, A. Vulcu, **A. C. Grosan**, S. Dreve, New materials based on silver nanoparticles and anthocyanins obtained from natural extracts for medical applications. Patent application no. Patent no. RO130666-A2 (04.04.2014)