



Europass Curriculum Vitae

Personal information

First name(s) / Surname(s) **GABRIEL KATONA**
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Nationality Romanian
Date of birth 21/01/1972
Gender Male

Desired employment / Occupational field

TEACHER

Work experience

Dates	01/03/2015 → present
Occupation or position held	Assoc.prof., Dr.,
Main activities and responsibilities	ORGANIC CHEMISTRY TEACHING Organic chemistry reaction and mechanism, dendrimers, fullerenes and carbon nanostructures studies, CAD
Name and address of employer	Babes-Bolyai University, Facultate of Chemistry and Chemical Engineering 11 Arany Janos, 400001 Cluj-Napoca (Cluj)
Type of business or sector	Education
Dates	01/02/2002 → 01/03/2015
Occupation or position held	Lecturer, Dr.,
Main activities and responsibilities	ORGANIC CHEMISTRY TEACHING Organic chemistry reaction and mechanism, dendrimers, fullerenes and carbon nanostructures studies, CAD
Name and address of employer	Babes-Bolyai University, Facultate of Chemistry and Chemical Engineering 11 Arany Janos, 400001 Cluj-Napoca (Cluj)
Type of business or sector	Education
Dates	01/01/2000 → 01/02/2002
Occupation or position held	Scientific researcher III
Main activities and responsibilities	QSPR/QSAR studies in bioregulator fields, software developer, research project leader
Name and address of employer	BIOS Research and Production Center, Cluj-Napoca
Type of business or sector	Bioregulator production and research

Education and training

Dates	01/04/2000 - 01/05/2000
Title of qualification awarded	invited person
Principal subjects / occupational skills covered	Summer School
Name and type of organisation providing education and training	Max Planck Institute Leipzig (Germany)
Dates	01/06/2000 → 01/08/2000
Title of qualification awarded	Ceepus
Principal subjects / occupational skills covered	molecular modelling
Name and type of organisation providing education and training	Szeged University Szeged (Hungary)

Personal skills and competences

Mother tongue(s) **Romanian**

Other language(s)

Self-assessment
European level ()*

English

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C1	Proficient user	C1	Proficient user	B2	Independent user	B2	Independent user	B2	Independent user

(*) [Common European Framework of Reference \(CEF\) level](#)

Computer skills and competences | Borland Delphi

Hirsch index = 13 Total number of citations www.scopus.com = 518; 2 articles cited in *Chemical Reviews*

e) optionally, the address of the researcherid.com profile (recommended for proposals in research areas outside of the humanities).

<http://www.researcherid.com/rid/A-8486-2011>

List of Publication

1. M.V. Diudea, G. Katona, O.M. Minailiuc, B. Parv, Molecular topology 24. Wiener and hyper-Wiener indices in spiro-graphs, *Izvest. Akad. Nauk, Ser. Khim.*, 9 (1995) 1674-1679, *Russ. Chem. B+*, 44, 9, 1606-1611, **1995** DOI: 10.1007/BF01151278
2. M.V. Diudea, O.M. Minailiuc, G. Katona, Molecular topology 22. Novel connectivity descriptors based on walk degrees, *Croat. Chem. Acta*, 69, 3, 857-871, **1996**
3. M.V. Diudea, O.M. Minailiuc, G. Katona, Molecular topology 26. SP indices: Novel connectivity descriptors, *Rev. Roum. de Chim.*, 42, 3, 239-249, **1997**
4. M.V. Diudea, O.M. Minailiuc, G. Katona, I. Gutman, Szeged matrices and related numbers, *MATCH-Comm. in Math. and in Comp. Chem.*, 35, 129-143, **1997**
5. M.V. Diudea, C.M. Pop, G. Katona, A.A. Dobrynin, A.A., Dual descriptors in the calculation of Wiener numbers, *J. Serb. Chem. Soc.*, 62, 3, 241-250, **1997**
6. M.V. Diudea, G. Katona, B. Parv, Delta number, D-Delta, of dendrimers, *Croat. Chem. Acta*, 70, 2, 509-517, **1997**
7. A.A. Kiss, G. Katona, M.V. Diudea, Szeged and Cluj Matrices within the Matrix Operator $W(M_1, M_2, M_3)$. *Coll. Sci. Papers Fac. Sci. Kragujevac*, 19, 95-107, **1998** (Kragujevac Journal of Science)
8. O.M. Minailiuc, G. Katona, M.V. Diudea, I. Gutman, Szeged fragmental indices, *Croat. Chem. Acta*, 71, 3, 473-488, **1998**
9. M.V. Diudea, G. Katona, I. Lukovits, N. Trinajstic, Detour and Cluj-detour indices, *Croat. Chem. Acta*, 71, 3, 459-471, **1998**
10. L. Jantschi, G. Katona, M.V. Diudea, Modeling molecular properties by Cluj indices, *MATCH-Communications in Mathematical and in Computer Chemistry*, 41, 151-188, **2000**
11. M. Ardelean, **G. Katona**, I. Hopartean, M. V. Diudea, Cluj Property Indices in Property Modeling, *Studia Univ. Babeș-Bolyai, Chemia, XLV, 1 (2)* **2000**
12. G. Katona, G. Turcu, A.A. Kiss, O.M. Minailiuc, M.V. Diudea, QSAR/QSPR studies by Cluj and Szeged descriptors, *Rev. Roum. de Chim.*, 46, 4, 395-410, **2001**
13. O. Ursu, G. Katona, M.V. Diudea, Activity prediction by Cluj-SIMIL program, *Rev. Roum. de Chim.*, 48, 4, 321-330, **2003**
14. G. Katona, M.V. Diudea, M. V., Correlating ability of Cluj-type indices, *Studia univ. Babeș-Bolyai Chemia*, 48, 41-76, **2003**

15. O. Ursu, M. Don, G. Katona, L. Jäntschi, M.V. Diudea, QSAR study on dipeptide ACE inhibitors, *Carpathian Journal of Mathematics*, 20, 2, 275-280, **2004**
16. C.D. Moldovan, A. Costescu, G. Katona, M.V. Diudea, A novel QSAR approach in modeling antifungal activity of some 5-or 6-methyl-2-substituted benzoxazoles/benzimidazoles against *C. albicans* using molecular descriptors, *MATCH-Communications in Mathematical and in Computer Chemistry*, 60, 3, 977-984, **2008**
17. A. Costescu, C.D. Moldovan, G. Katona, M.V. Diudea, QSAR modeling of human catechol O-methyltransferase enzyme kinetics, *J. Math. Chem.*, 45, 2, 287-294, **2009**
DOI: 10.1007/s10910-008-9405-4
18. C.D. Moldovan, A. Costescu, G. Katona, M.V. Diudea, Application to QSAR studies of 2-furylethylene derivatives, *J. Math. Chem.*, 45, 2, 442-451, **2009** DOI: 10.1007/s10910-008-9417-0
19. A.E. Vizitiu, Cs.L. Nagy, M. Stefu, G. Katona, M.V. Diudea, B. Parv, D. Vukicevic, Tubercular fulleroids, *J. Math. Chem.*, 45, 2, 513-524, **2009** DOI: 10.1007/s10910-008-9424-1
20. M.E. Fustos, E. Tasnadi, G. Katona, M.V. Diudea, Functionalization of carbon nanotubes, *Studia univ. Babeş-Bolyai Chemia*, 55, 4, 153-159, **2010**
21. G. Katona, M. Miclean, M. Chintoanu, M. Roman, E. Luca, S.M. Simon, T. Rusu, C. Roman, The cellular biodegradation of di- and trihydroxybenzenes, *Studia univ. Babeş-Bolyai Chemia*, 55, 3, 151-156, **2010**
22. L. Senila, M. Miclean, M. Roman, M. Chintoanu, G. Katona, C. Roman, C. Majdik, Starch hydrolysis with commercial enzyme preparates, *Studia univ. Babeş-Bolyai Chemia*, 55, 3, 145-150, **2010**
23. E. Tasnadi, G. Katona, M.V. Diudea, modeling of biologically active molecular structures, *Studia univ. Babeş-Bolyai Chemia*, 55, 1, 45-54, **2010**
24. K. Nagy, Cs.L. Nagy, G. Katona, M.V. Diudea, Armchair [3,3] Carbon Nanotube Junctions with Tetrahedral Symmetry, *Fullerenes nanotubes and carbon nanostructures*, 18, 3, 216-223 **2010** DOI: 10.1080/15363831003782924
25. G. Katona, C. Roman, M. Chintoanu, A. Gog, G. Pitl, M. Roman, E. Luca, C. Majdik, The Biodegradation of Various Polihydroxy Benzenes with *Pelobacter acidigallici*, *Rev. Chim.*, 61, 9, 907-910 **2010**
26. C. Majdik, G. Katona, M. Chintoanu, M. Roman, M. Luca, S.M. Simon, T. Rusu, C.

- Roman, Phenol removal from wastewaters using polyphenoloxidase from potato, *Studia univ. Babeş-Bolyai Chemia*, 56, 1, 267-273, **2011, IF=0.148**
27. C. Majdik, G. Katona, M. Chintoanu, M. Roman, E. Luca, S.M. Simon, T. Rusu, C. Roman, Immobilized polyphenoloxidase for wastewaters treatment, *Studia univ. Babeş-Bolyai Chemia*, 56, 1, 261-266, **2011, IF=0.148**
28. I. Neagoe, C. Braicu, C. Matea, C. Bele, F. Graur, G. Katona, V. Chedea, A. Irimie, Efficient siRNA delivery system using carboxylated single-wall carbon nanotubes in cancer treatment, *J. Biomed. Nanotechnol.*, 8, 4, 567-574, **2012 IF=5.068**
29. K. Nagy, Cs.L. Nagy, E. Tasnadi, G. Katona, M.V. Diudea, Hyper-diamonds and Dodecahedral Architectures by Tetrapodal Carbon Nanotube Junctions, *Acta Chim. Slovenica*, 60, 1, 1-4, **2013 IF=1.167**
30. M.E. Füstös, M.V. Diudea, G. Katona, Functionalization of multi-walled carbon nanotubes with diamino-alkyl moieties, *Studia univ. Babeş-Bolyai Chemia*, **2013** accepted **IF=0.148**
31. D.A. Todea, S. Tonk, A.E. Tiuc, A. Török, C. Mânzatu, G. Katona, C. Majdik, Continuous flow waste water purification with immobilized cells, *Studia univ. Babeş-Bolyai Chemia*, 3, 159-165, **2013 IF=0.148**
32. D.A. Todea, S. Tonk, A.E. Tiuc, A. Török, C. Mânzatu, G. Katona, C. Majdik, Efficient degradation of phenol with *Pseudomonas putida* cells for the production of pure water, *Studia univ. Babeş-Bolyai Chemia*, 3, 151-158, **2013 IF=0.148**
33. M.A. Naghi, A. Varga, M.E. Füstös, G. Katona, V. Zaharia, Heterocycles 35: CaL-B mediated synthesis of optically pure (R)- and (S)- ethyl 3-hydroxy-3-(2-aryl-thiazol-4-yl) propanoates, *Tetrahedron Asymmetry*, **2014**, 25, 4, 298-304 **IF=2.347**
DOI: 10.1016/j.tetasy.2014.01.013
34. B. Nagy, B. Szilagyi, C. Majdik, G. Katona, C. Indolean, A. Măicăneanu, Cd (II) and Zn (II) biosorption on *Lactarius piperatus* macrofungus: Equilibrium isotherm and kinetic studies, *Environmental Progress & Sustainable Energy*, **2014**, 33(4), 1158-1170
DOI: 10.1002/ep.11897 **IF=1.631**
35. C. Berghian-Grosan, L. Olenic, G. Katona, M. Perde-Schrepler, A. Vulcu, l-Leucine for gold nanoparticles synthesis and their cytotoxic effects evaluation, *Amino Acids*, **2014**, 46, 2545-2552. DOI: 10.1007/s00726-014-1814-z **IF=3.196**
36. R.V. Baritchi, G. Katona, B. Marta, S. Astilean, Microwave-assisted synthesis of carbon

- nanoparticles using a high performance microwave reactor, *Studia Universitatis Babeş-Bolyai, Physica*, 59 (2), 99-109, **2014**, IF=0.148
37. M. Dan, M. Mihet, Z. Tasnadi-Asztalos, A. Imre-Lucaci, G. Katona, M. D. Lazar, Hydrogen production by ethanol steam reforming on nickel catalysts: effect of support modification by CeO₂ and La₂O₃, *FUEL*, 147, 250-258, **2015**, DOI:10.1016/j.fuel.2015.01.050 **IF=3.611**
38. M.E. Fustos, T.A. Sipos, M.V. Diudea, G. Katona, Synthesis of Novel Aromatic Core Zero Generation Dendrimers, *Croat. Chem. Acta*, 88 (2) 129–132, **2015**. **IF=0.732**, <http://dx.doi.org/10.5562/cca2568>
39. F. Pogacean, S. Pruneanu, A.R. Biris, M. Coros, L. Magerusan, G. Katona, R. Turcu, G. Borodi, C. Socaci, Graphene based nanomaterials as chemical sensors for hydrogen peroxide - a comparison study of their intrinsic peroxidase catalytic behavior, *Sensors & Actuators: B. Chemical*, 213, 474-483, **2015** **IF=4.758**
40. R. Barabás, G. Katona, E.S. Bogya, M.V. Diudea, A. Szentes, B. Zsirka, J. Kovács; L. Kékedy-Nagy, Preparation and characterization of carbon nanotube-hydroxyapatite composites, *Ceramics International*, 41, 10, 12717-12727, **2015** **IF=2.758**
41. M. Stan, D. Toloman, A. Dehelean, I. Lung, G. Katona, A. Popa, Enhanced photocatalytic degradation properties of zinc oxide nanoparticles synthesized by using plant extracts, *Mater. Sci. in Semicond. Process*, 39, 23-29, **2015** **IF=2.264**
42. B. Marta, M. Potara, M. Iliuta, E. Jakab, T. Radu, F. Imre-Lucaci, G. Katona, O. Popescu, S. Astilean, Designing chitosan–silver nanoparticles–graphene oxide nanohybrids with enhanced antibacterial activity against Staphylococcus aureus, *Colloids and Surfaces A: Physicochem. Eng. Aspects*, 487, 113–120, **2015**, **IF=2.760**
43. F. Pogacean, A.R. Biris, M. Coros, M.C. Rosu, L. Magerusan, G. Katona, S. Pruneanu, C. Socaci, Graphene oxide vs. reduced graphene oxide as carbon support in porphyrin peroxidase biomimetic nanomaterials, *Talanta*, 148, 511-517, **2016**, **IF=4.035**
44. L.C. Bencze, J.H. Bartha-Vári, G. Katona, M.I. Toşa, C. Paizs, C., F.D. Irimie, Nanobioconjugates of Candida antarctica lipase B and single-walled carbon nanotubes in biodiesel production, *Bioresource Technology*, 200, 853-860, **2016**, **IF=4.917**
45. D. Toloman, A. Mesaros, A. Popa, T.D. Silipas, S. Neamtu, G. Katona, V-doped ZnO particles: synthesis, structural, optical and photocatalytic properties, *J. Mater Sci.: Materials in Electronics*, 27(6), 5691-5698, **2016**, **IF=1.798**

46. M.E. Füstös, M.V. Diudea, G. Katona, Catalytic reduction of 4-nitrophenol using new Cu(0)/aromatic core dendrimer complexes, *Studia univ. Babeş-Bolyai Chemia*, 61 (1), 43-50, **2016**, **IF=0.191**
47. Cziko, M, Bogya, ES, Paizs, C (Paizs, Csaba), Katona, G, Konya, Z, Kukovecz, A, Barabas, R, Albumin adsorption study onto hydroxyapatite-multiwall carbon nanotube based composites, *Materials Chemistry And Physics*, 180, 314-325, **2016**, **IF=2.101**
48. L. Magerusan, C. Socaci, F. Pogacean, M.C. Rosu, A. R. Biris, M. Coros, A. Turza, V. Floare-Avram, G. Katona, S. Pruneanu, Enhancement of peroxidase-like activity of N-doped graphene assembled with iron-tetrapyridylporphyrin, *RSC Adv.*, 6, 79497-79506, **2016**, DOI: 10.1039/C6RA15414J, **IF=3.289**
49. Á.F. Szőke, G.L. Turdean, G. Katona, L.M. Muresan, Electrochemical determination of dopamine with graphene-modified glassy carbon electrodes, *Studia UBB CHEMIA*, LXI, 3, 135-144, **2016**, **IF=0.148**
50. L. Bizo, M. Gorea, G. Katona, Influence of MgO/SiO₂ ratio and additives on bionanoforsterite powders characteristics, *Studia UBB CHEMIA*, LXI, 3, 239-249, **2016**, **IF=0.148**
51. F. Goga, R. Dudric, L. Bizo, A. Avram, T. Dippong, G. Katona, G. Borodi, A. Anton, Influence of the thermal treatment on the colour of RO·Al₂O₃ (R=Co, Ni) type spinel pigments prepared by a modified sol – gel method, *Studia UBB CHEMIA*, LXI, 3, 263-273, **2016**, **IF=0.148**
52. M.E. Fustos, M.V. Diudea, G. Katona, Catalytic reduction of 4-nitrophenol using new Cu(0)/aromatic core dendrimer complexes, *Studia UBB CHEMIA*, LXI, 1, 43-50, **2016**, **IF=0.148**
53. D. Toloman, A. Popa, M. Stan, C. Socaci, A.R. Biris, G. Katona, F. Tudorache, I. Petrila, F. Iacomi, Reduced graphene oxide decorated with Fe doped SnO₂ nanoparticles for humidity sensor, *Applied Surface Science*, 402, **2017**, 410–417, DOI: j.apsusc.2017.01.064, **IF=3.15**
54. J.H. Bartha-Vári, L.C. Bencze, E. Bell, L. Poppe, G. Katona, F.D. Irimie, C. Paizs, M.I. Toşa, Aminated single-walled carbon nanotubes as carrier for covalent immobilization of phenylalanine ammonia-lyase, *Periodica Polytechnica: Chemical Engineering*, 61 (1), **2017**, 59-66, DOI: 10.3311/PPch.10417, **IF=0.84**
55. O.O. Dănilă, A. Sevastre Berghian, V. Dionisie, D. Gheban, D. Olteanu, F. Tabaran, I.

- Baldea, G. Katona, B. Moldovan, S. Clichici, L. David, G.A. Filip, The effects of silver nanoparticles on behavior, apoptosis and nitro-oxidative stress in offspring Wistar rats, *Nanomedicine*, 12 (12), 1455-1473, **2017**, DOI:10.2217/nnm-2017-0029, **IF=4,889**
56. T.A. Dull-Szabo, M.E. Fustos, M. Suci, G. Katona, Synthesis and characterization of derivatized carbon nanostructures, *Studia UBB CHEMIA*, vol 62, 2TOM2, 223-232, **2017**, **IF=0.148**
57. C. Morar, P. Lameiras, A. Bende, G. Katona, E. Gal, M. Darabantu, Design, synthesis and structure of novel G-2 melamine-based dendrimers incorporating 4-(n-octyloxy)aniline as a peripheral unit, *Beilstein Journal of Organic Chemistry*, 14, 1704–1722. doi:10.3762/bjoc.14.145 **2018**, **IF = 2.3**
58. M. Oláh, D. Kovács, G. Katona, G. Hornyánszky, László Poppe, Optimization of 2-alkoxyacetates as acylating agent for enzymatic kinetic resolution of chiral amines, *Tetrahedron*, 74(27), 3663-3670 **2018**, **IF=2.651**
59. F. Pogacean, M. Coros, L. Magerusan, V. Mirel, A. Turza, G. Katona, R.I. Stefan van- Staden, S. Pruneanu, Exfoliation of graphite rods via pulses of current for graphene synthesis: sensitive detection of 8-hydroxy-2'-deoxyguanosine, *Talanta*, 196, 182-190, **2019**, **IF=4.244**
60. R. Barabás, D. Deemter, G. Katona, G. Batin, L. Barabás, L. Bizo, O. Cadar, Comparative study on physicochemical and mechanical characterization of new nanocarbon-based hydroxyapatite nanocomposites, *Turkish Journal of Chemistry*, 43, 3, 809-824, **2019**, **IF=1**
61. C. Sacalis, C. Morar, P. Lameiras, A. Lupan, R. Silaghi-Dumitrescu, A. Bende, G. Katona, D. Porumb, D. Harakat, E. Gál, M. Darabantu, Design, synthesis and structure of novel dendritic G-2 melamines comprising piperidine motifs as key linkers and 4-(n-octyloxy) aniline as a peripheral unit, *Tetrahedron*, 75, 35, **2019**, **IF=2.651**
62. B. Decsi, R. Krammer, K. Hegedűs, F. Ender, B. Gyarmati, A. Szilágyi, R. Tóth, G. Katona, C. Paizs, G.T. Balogh, L. Poppe, D. Balogh-Weiser, Liver-on-a-Chip–Magnetic Nanoparticle Bound Synthetic Metalloporphyrin-Catalyzed Biomimetic Oxidation of a Drug in a Magnechip Reactor, *Micromachines*, 10(10), 668; **2019**, <https://doi.org/10.3390/mi10100668>, **IF=2.426**

Books:

1. MV Diudea, G Katona, Molecular Topology of Dendrimers, in “*Advanced Dendritic Macromolecule*”, Ed. G.A. Newkome, JAI Press Inc. Stamford, Con., USA, **1999**, vol. 4, 135-201
2. G. Katona, M. V. Diudea, Chemical Graph Theory and Nanoscience in “*Mathematical chemistry monographs*”, I. Gutman, B. Pokric, D. Vukicevic (Eds.), Pub. Univ. of Kragujevac and Faculty of Science Kragujevac, 16, 179-224, **2014**, ISBN: 978-86-6009-021-0

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Conf.Dr.Gabriel Katona

