

INFORMAȚII PERSONALE

KATONA GABRIEL

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Data nașterii 21 ianuarie 1972

EXPERIENȚA PROFESIONALĂ

01 septembrie 1998–20 februarie
2002

CS III

Centrul de Cercetare si Productie BIOS, Cluj-Napoca (România)

chimist

2002–2014

Lector, dr.

Universitatea Babes-Bolyai, Facultatea de Chimie si Inginerie Chimica, Cluj-Napoca (România)

lector

2014–prezent

Conferentiar, dr.

Universitatea Babes-Bolyai, Facultatea de Chimie si Inginerie Chimica, Departamentul de Chimie si Inginerie Chimica al Liniei Maghiare, Cluj-Napoca (România)

EDUCAȚIE ȘI FORMARE

01 octombrie 1990–15 iunie 1995

Diploma de licenta

Universitatea Babes-Bolyai, Facultatea de Chimie si Inginerie Chimica, Cluj-Napoca (România)

chimist

01 octombrie 1995–15 iunie 1996

Diploma de master

Universitatea Babes-Bolyai, Facultatea de Chimie si Inginerie Chimica, Cluj-Napoca (România)

master-chimia heterociclorilor

01 octombrie 1996–15 noiembrie
2001

Diploma de doctor

Universitatea Babes-Bolyai, Facultatea de Chimie si Inginerie Chimica, Cluj-Napoca (România)

doctor in chimie

01 aprilie 2000–01 mai 2000

Max Planck Institute, Leipzig (Germania)

modelare moleculara

10 iunie 2000–10 august 2000

Universitatea din Szeged, Szeged (Ungaria)

modelare moleculara

01 aprilie 2003–01 mai 2003

Centrul de Cercetari Chimice al Academiei maghiare, Budapesta (Ungaria)

chimie matematica

01 mai 2005–01 iunie 2005

Centrul de Cercetari Chimice al Academiei maghiare, Budapesta (Ungaria)

chimie matematica

COMPETENȚE PERSONALE

Limba(i) maternă(e)

maghiară

Alte limbi străine cunoscute

	ÎNȚELEGERE		VORBIRE		SCRIERE
	Ascultare	Citire	Participare la conversație	Discurs oral	
engleză	C1	C1	B2	B2	B2

Niveluri: A1/A2: Utilizator elementar - B1/B2: Utilizator independent - C1/C2: Utilizator experimentat
Cadrul european comun de referință pentru limbi străine

Competențe de comunicare

- abilitati de comunicare

Competențe organizaționale/manageriale

- leadership
 - bune competențe organizaționale
 - bune abilități de conducere si comunicare

Competențe dobândite la locul de muncă

- conducere grup de cercetare
 - indrumare tineri cercetatori

Competențe informatice

- programare Pascal, Delphi
 - utilizare software specific in chimie

INFORMAȚII SUPLIMENTARE

Membru al asociatiilor profesionale

- EMT Cluj Napoca – membru
 - Societatea Europeana de Chimie Matematica - vicepresedinte

Lista de publicatii ISI

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 $W(M1, M2, M3)$. *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 fullerooids, *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. Babes-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. Babes-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. Babes-Bolyai Chemia*, 55, 3, 145-150, **2010**
23. E. Tasnadi, G. Katona, M.V. Diudea, modeling of biologically active molecular structures, *Studia univ. Babes-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=3.929**
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. Szilagyí, 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. Bogyá, 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/nmm-2017-0029, IF=4,889

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

15.01.2018

Conf.Dr. Gabriel Katona

