

PERSONAL INFORMATION

Csaba Levente NAGY

Address Fragilor street, 9, 405200 Dej (Romania)
 E-mail(s) nc35@chem.ubbcluj.ro | nc35chem@gmail.com
 Home page <http://chem.ubbcluj.ro/~nc35/>
 Date of birth 10/09/1979
 Gender Male | Citizenship Romanian

WORK EXPERIENCE

- October 2014 – present **Lecturer**
 Babeş-Bolyai University, Faculty of Chemistry and Chemical Engineering
 ▪ higher education
- October 2007 – 2014 **Research Assistant**
 Babeş-Bolyai University, Faculty of Chemistry and Chemical Engineering
 ▪ Scientific research activity
- October 2009 – September 2012 **Postdoctoral research**
 Babeş-Bolyai University, Faculty of Chemistry and Chemical Engineering
 ▪ Scientific research activity

EDUCATION AND TRAINING

- 2002 – 2007 **Postgraduate studies in applied computer science and programming**
 Technical University of Cluj-Napoca
- 2002 – 2007 **PhD in Chemistry**
 Babeş-Bolyai University, Faculty of Chemistry and Chemical Engineering
- 2001 – 2002 **Master of Science in Advanced Organic Chemistry**
 Babeş-Bolyai University, Faculty of Chemistry and Chemical Engineering
- 1997 – 2001 **Bachelor of Science in Chemistry**
 Babeş-Bolyai University, Faculty of Chemistry and Chemical Engineering
- 1993 – 1997 **Baccalaureate Degree / High school diploma**
 „Andrei Mureşanu” High school diploma Dej

PERSONAL SKILLS AND COMPETENCES

Mother tongue(s) Hungarian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1

French	B1	B1	B1	B1	B1
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Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Communication skills
Organisational / managerial skills

- supervision of research work
- Organization of scientific events (workshop, conference)
- Project management

Research

- Chemistry of carbon nanostructures, computational chemistry, molecular topology
- High symmetry multiterminale nanotube junctions, onion fullerenes, hetero fullerenes
- Aromaticity descriptors

Computer skills

- operating systems: Windows (XP, 7, 8.1), Linux
- Microsoft Office Suite, Origin, EndNote
- quantum chemical programs : Gaussian, Gamess, Mopac, HyperChem
- others: Matlab, Mathematica, SolidEdge
- programming in C#, JAVA, PHP, HTML, CSS, MySQL

Teaching

- CLM2014 – Computer assisted technical drawing
- CLM2044 – Applied computer programming in engineering
- CLM2034 – Signals and systems

ADDITIONAL INFORMATION

Research stages

2012 – National Institute of Chemistry Ljubljana, Slovenia
2013 – workshop: Topological methods in crystal chemistry and materials science, CECAM-HQ-EPFL, Lausanne
2014 – University of Szeged, Department of Chemical Informatics, Hungary (Domus scholarship)

Identifiers

Researcher ID	G-3594-2011
Scopus ID	7003677314
ORCID	0000-0002-6356-6349

Publications

- 20 articles published in ISI journals
- author of 6 book chapters published by international publisher (Springer)
- 1 book published by an international publisher (Springer) co-editor
- 1 book published by an international publisher (Springer), co-author

Projects

Member in 11 national research projects
Member in 2 European research projects
1 project director

Conferences

Participated at 23 international conferences: 9 oral lectures, 1 invited lecture

Awards

2013 - The Academic Committee of the Hungarian Academy of Cluj - József Teleki Young Scientist Award in the field of natural sciences

Memberships

Hungarian Academy of Sciences – external member since 2013
European Society of Mathematical Chemistry (since 2008)

ANNEXES

A1. Books

1. Diudea MV, Nagy CL (editors) (2013) Diamond and related nanostructures. Carbon Materials: Chemistry and Physics, vol. 6. Springer, Dordrecht. ISBN: 978-94-007-6370-8 <http://www.worldcat.org/oclc/847617711>
2. Diudea MV, Nagy CL (2007) Periodic Nanostructures. Developments in Fullerene Science, vol. 7. Springer, Dordrecht. ISBN: 978-1-4020-6019-9 <http://www.worldcat.org/oclc/191450930>

A2. Book chapters

1. Nagy CL, Nagy K, Diudea MV (2016) Tetrahedral nanoclusters. In: Ashrafi AR, Diudea MV (eds) *Distances, symmetry and topology in carbon nanomaterials*. Carbon Materials: Chemistry and Physics, Vol. 9. Springer, Dordrecht. pp. 409–421. ISBN: 978-3-319-31582-9 DOI: 10.1007/978-3-319-31584-3_22
2. Diudea MV, Szeffler B, Nagy CL, Bende A (2015) *Exotic allotropes of carbon*. In: Putz MV, Ori O (eds) Exotic properties of carbon nanomatter. Carbon Materials: Chemistry and Physics, vol. 8. Springer, Dordrecht. pp 185–202. ISBN: 978-94-017-9567-8 DOI: 10.1007/978-94-017-9567-8_8
3. Nagy K, Nagy CL (2013) *Hypergraphene from armchair nanotube Y junctions*. in: Diudea MV, Nagy CL (eds) Diamond and related nanostructures. Carbon Materials: Chemistry and Physics, vol. 6. Springer, Dordrecht. pp 207–227. ISBN: 978-94-007-6370-8 DOI: 10.1007/978-94-007-6371-5_11 <http://www.worldcat.org/oclc/847617711>
4. Nagy CL, Diudea MV (2013) *Diamond D₅*. in: Diudea MV, Nagy CL (eds) Diamond and related nanostructures. Carbon Materials: Chemistry and Physics, vol. 6. Springer, Dordrecht. pp 91–105. ISBN: 978-94-007-6370-8 DOI: 10.1007/978-94-007-6371-5_5 <http://www.worldcat.org/oclc/847617711>
5. Diudea MV, Nagy CL, Ilić A (2011) *Diamond D₅, a novel class of carbon allotropes*. in: Putz MV (ed) Carbon Bonding and Structures. Carbon Materials: Chemistry and Physics, vol. 5. Springer, Dordrecht. pp 273–289. ISBN: 978-94-007-1732-9 DOI: 10.1007/978-94-007-1733-6_11 <http://www.worldcat.org/oclc/756041214>
6. Nagy CL, Diudea MV, Balaban TS (2005) *Reaction pathways in the coalescence of fullerenes*. in: Diudea MV (ed) Nanostructures – Novel Architecture. Nova Science Publishers Inc., New York. pp 25–60. ISBN: 1-59454-499-9 <http://www.worldcat.org/oclc/59755993>
7. Diudea MV, Nagy CL, Graovac A (2005) *Periodic finite nanostructures*. in: Diudea MV (ed) Nanostructures – Novel Architecture. Nova Science Publishers Inc., New York. pp 61–84. ISBN: 1-59454-499-9 <http://www.worldcat.org/oclc/59755993>
8. Nagy CL, Diudea MV (2005) *Nanoporous carbon structures*. in: Diudea MV (ed) Nanostructures – Novel Architecture. Nova Science Publishers Inc., New York. pp 311–334. ISBN: 1-59454-499-9 <http://www.worldcat.org/oclc/59755993>

A3. Articles published in ISI journal

1. Nagy CL, Diudea MV (2017) RSI index. MATCH Communications in Mathematical and in Computer Chemistry 77(2): 479–492.
2. Nagy K, Nagy CL, Diudea MV (2016) Theoretical investigation of symmetrical three-terminal junctions. Studia Universitatis Babeş-Bolyai Chemia 61(3) 285–294.
3. Diudea MV, Bende A, Nagy CL (2014) Carbon multi-shell cages. Physical Chemistry Chemical Physics 16(11): 5260–5269. DOI: 10.1039/C3CP55309D
4. Nagy K, Nagy CL, Tasnadi E, Katona G, Diudea MV (2013) Hyper-diamonds and dodecahedral architectures by tetrapodal carbon nanotube junctions. Acta Chimica Slovenica 60(1): 1–4.
5. Diudea MV, Nagy CL (2012) C₂₀-related structures: Diamond D₅. Diamond and Related Materials. 23: 105–108. DOI: 10.1016/j.diamond.2012.01.001
6. Diudea MV, Nagy CL, Bende A (2012) On diamond D₅. Structural Chemistry 23(4): 981–986. DOI: 10.1007/s11224-012-0040-0
7. Nagy K, Nagy CL, Diudea MV (2011) Omega and Sadhana polynomials of dendrimers designed from tetrapodal graphitic junctions. MATCH Communications in Mathematical and in Computer Chemistry 65(1): 163–172.
8. Diudea MV, Nagy K, Nagy CL, Ilić A (2011) Omega polynomial in puzzle zeolites. MATCH Communications in Mathematical and in Computer Chemistry 65(1): 143–152.
9. Nagy K, Nagy CL, Katona G, Diudea MV (2010) Armchair [3,3] carbon nanotube junctions with tetrahedral symmetry. Fullerenes Nanotubes and Carbon Nanostructures 18(3): 216–223. DOI: 10.1080/15363831003782924
10. Nagy K, Nagy CL, Diudea MV (2010) Omega polynomial in diamond-like dendrimers. Studia Universitatis Babeş-Bolyai Chemia 55(1): 77–82.
11. Diudea MV, Nagy CL, Žigert P, Klavžar S (2010) Cluj and related polynomials in tori. Studia Universitatis Babeş-Bolyai Chemia 55(4): 113–123.
12. Lijnen E, Ceulemans A, Diudea MV, Nagy CL (2009) Double toroids as model systems for carbon nanotube junctions: Through-bond currents. Journal of Mathematical Chemistry 45(2): 417–430. DOI: 10.1007/s10910-008-9415-2
13. Nagy CL, K. Nagy, Diudea MV (2009) Elongated tori from armchair DWNT. Journal of Mathematical Chemistry 45(2): 452–459. DOI: 10.1007/s10910-008-9418-z
14. Vizitiu AE, Nagy CL, Ştefu M, Katona G, Diudea MV, Pârv B, Vukičević D (2009) Tubercular fullerenoids. Journal of Mathematical Chemistry 45(2): 513–524. DOI: 10.1007/s10910-008-9424-1
15. Diudea MV, Vizitiu AE, Beu T, Bende A, Nagy CL, Janežič D (2009) Circulene covered fullerenes. Journal of Molecular Structure: THEOCHEM 904(1–3): 28–34. DOI: 10.1016/j.theochem.2009.02.024
16. Diudea MV, Nagy CL (2008) Extension of Euler formula in multi-shell polyhedral. MATCH Communications in Mathematical and in Computer

Chemistry 60(3): 835–844.

17. Panea I, Tomoaia-Cotișel M, Horovitz O, Gáspár CL, Mocanu A, Nagy CL (2007) Spectroscopic and atomic force microscopy study of a new hemicyanine dye. *Studia Universitatis Univ. Babes-Bolyai Chemia* 52(3): 79–86.
18. Diudea MV, Nagy CL, Silaghi-Dumitrescu I, Graovac A, Janežič D, Vikić-Topić D (2005) Periodic cages. *Journal of Chemical Information and Modeling* 45(2): 293–299. DOI: 10.1021/ci049738g
19. Nagy CL, Ștefu M, Diudea MV, Dress A, Müller A (2004) C₇₀ Dimers – energetics and topology. *Croatica Chemica Acta* 77(3): 457–464.
20. Diudea MV, Nagy CL, Ursu O, Balaban TS (2003) C₆₀ dimers revisited. *Fullerenes Nanotubes and Carbon Nanostructures* 11(3): 245–255. DOI: 10.1081/FST-120024043

A4. Conferences

1. Nagy CL, Katona G (2003) Energy and topology of dimer fullerenes. IX. Nemzetközi Vegyészkonferencia. Cluj (Romania) November 14-16. (poster)
2. Nagy CL, Diudea MV (2004) From nano-peapods through DWNTs to elongated tori. Fourth International Conference on Applied Mathematics (ICAM4). Baia Mare (Romania) September 23-26. (poster)
3. Nagy CL, Diudea MV (2005) New toroidal structures from DWNT. Molecular Modeling in Chemistry and Biochemistry. Cluj (Romania) April 21-23. (presentation)
4. Nagy CL, Nagy K, Diudea MV (2006) Structure and stability of finite length capped armchair carbon nanotubes. 20 Years Anniversary of Molecular Topology at Cluj (TOPMOL 2006). Cluj (Romania) September 25-30. (presentation)
5. Nagy K, Nagy CL, Diudea MV (2007) Diamond and dodecahedron architectures from carbon tetrapods. Molecular Modeling in Chemistry and Biochemistry (MOLMOD 2007). Arcalia (Romania) July 5-8. (poster)
6. Nagy CL, Nagy K, Diudea MV (2007) Stability of closed and opened zigzag carbon nanotubes. Molecular Modeling in Chemistry and Biochemistry (MOLMOD 2007). Arcalia (Romania) July 5-8. (poster)
7. Nagy CL, Nagy K, Diudea MV (2007) Elongated toroidal carbon nanostructures from double-walled armchair nanotubes. Chemical Graph Theory and Molecular Modeling Workshop (CHEMMOD 2007). Cluj (Romania) October 23-26. (presentation)
8. Nagy K, Nagy CL, Diudea MV (2007) Armchair (3,3) carbon nanotube junctions with tetrahedral symmetry. Chemical Graph Theory and Molecular Modeling Workshop (CHEMMOD 2007). Cluj (Romania) October 23-26. (poster)
9. Nagy CL, Nagy K, Katona G, Diudea MV (2007) Periodicity of armchair carbon nanotubes. 6th International Conference on Applied Mathematics (ICAM6). Baia Mare (Romania) September 18-21. (presentation)
10. Nagy K, Nagy CL, Diudea MV (2009) Omega polynomial of carbon tetrapodal graphitic junctions. Molecular Modeling in Chemistry and Biochemistry (MOLMOD 2009). Cluj (Romania) April 2-4. (poster)
11. Nagy CL (2010) DFT study of closed armchair nanotubes. 7th International Conference on Applied Mathematics (ICAM7). Cluj (Romania) September 1-4. (presentation)
12. Nagy CL (2012) Carbon clusters with tetrahedral symmetry. Computers in Scientific Discovery 6 (CSD6). Portorož (Slovenia) August 21-25. (presentation)
13. Nagy CL, Nagy K, Diudea MV, Katona G (2012) Theoretical study of high symmetry multi-terminal armchair carbon nanotube junctions. International Meeting on Atomic and Molecular Physics and Chemistry (IMAMPC 2012). Pisa (Italy) September 12-14. (poster)
14. Nagy CL, Nagy K (2012) Phosphorus-doped tetrahedral heterofullerenes and corresponding tetrapodal junctions. 9th European Workshop on Phosphorus Chemistry (EWPC9). Rennes (France) March 22-23. (poster)
15. Nagy CL (2013) Closed and opened carbon nanoclusters with high symmetry. Nanoscience in Mathematics, Physics, Chemistry and Biology. Cluj (Romania) March 21. (presentation)
16. Nagy CL, Nagy K, Katona G (2013) Multi-terminal armchair carbon nanostructures: structure and stability. Conference on bile acids – modelling, chemistry and pharmacy II. Novi Sad (Serbia) July 4-5. (invited lecture)
17. Nagy CL, Nagy K, Katona G, Diudea MV (2014) DFT study of stabilization of tetrahedral fullerenes containing pentagon triples. JCF-Frühjahrssymposium 2014 (FJS). Jena (Germany) March 26-30. (poster)
18. Nagy K, Nagy CL, Diudea MV, Katona G (2014) Theoretical study of opened [4,4] armchair carbon nanotube Y-junctions. JCF-Frühjahrssymposium 2014 (FJS). Jena (Germany) March 26-30. (poster)
19. Nagy CL, Nagy K (2014) Covalent assembly of single-walled carbon nanotubes. 4th Visegrad Symposium on Structural Systems Biology. Nove Hradky (Czech Republic) June 17-20. (presentation)
20. Nagy CL, Nagy K (2015) Corrugated carbon nanotubes – a DFT study. 17th Frühjahrssymposium 2015 (FJS). Münster (Germany) March 25-28. (poster)
21. Nagy K, Nagy CL, Diudea MV (2015) Three terminal armchair carbon nanotube junctions. 17th Frühjahrssymposium 2015 (FJS). Münster (Germany) March 25-28. (poster)
22. Nagy CL, Nagy K, Diudea MV (2015) Closed - shell octahedral carbon nanoclusters. Nanoscience in chemistry, physics, biology and mathematics (NanoMathChem2015). Cluj (Romania) November 12-14. (presentation)
23. Diudea MV, Moldovan AP, Nagy CL (2016) C₆₀ aggregation. 8th Edition of Molecular Modeling in Chemistry and Biochemistry (MolMod2016) Cluj (Romania) November 13-15. (presentation)
24. Diudea MV, Moldovan AP, Nagy CL (2016) Modeling chiral multi-toroidal clusters. 11th International Conference on Physics Of Advanced Materials (ICPAM-11). Cluj (Romania) September 8-14. (presentation)

January 10, 2017, Cluj-Napoca

Lect. dr. Csaba Levente NAGY