



## Curriculum vitae Europass

### Informații personale

Nume / Prenume	<b>Diudea Vasile Mircea</b>	
Adresă(e)	București 81, 400613 Cluj-Napoca (România)	
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Fax(uri)		
E-mail(uri)	diudea@chem.ubbcluj.ro; diudea@gmail.com	
Naționalitate(-tăți)	Român	
Data nașterii	11 Noiembrie 1950	
Sex	Masculin	

### Experiența profesională

Perioada	1974 - 1980	
Funcția sau postul ocupat	Chimist	
Numele și adresa angajatorului	Fabrica de Medicamente Terapie Cluj-Napoca	
Perioada	1980 - 1987	
Funcția sau postul ocupat	Cercetător științific	
Numele și adresa angajatorului	Institutul de cercetare Chimică-Farmaceutică Cluj-Napoca	
Perioada	1987 - 1990	
Funcția sau postul ocupat	Asistent	
Numele și adresa angajatorului	Universitatea Babeș-Bolyai Cluj-Napoca	
Perioada	1990 - 1996	
Funcția sau postul ocupat	Conferențiar	
Numele și adresa angajatorului	Universitatea Babeș-Bolyai Cluj-Napoca	
Perioada	1996 →	
Funcția sau postul ocupat	Profesor	
Numele și adresa angajatorului	Universitatea Babeș-Bolyai Arany J. 11, 400028 Cluj-Napoca	

### Educație și formare

Perioada	1969 - 1974
Calificarea / diploma obținută	diplomă de licență

Disciplinele principale studiate / competențe profesionale dobândite | Facultatea de Chimie, Universitatea Cluj Cluj-Napoca

Perioada | 1975 - 1979

Calificarea / diploma obținută | Doctorat

Disciplinele principale studiate / competențe profesionale dobândite | Universitatea Cluj Cluj-Napoca

### Aptitudini și competențe personale

Limba(i) maternă(e) | **Română**

Limba(i) străină(e) cunoscută(e)

Autoevaluare

Nivel european (\*)

**Engleză**

Înțelegere				Vorbire				Scriere	
Ascultare		Citire		Participare la conversație		Discurs oral		Exprimare scrisă	
B1	X	B1	X	B1	X	B1	X	B1	X

(\*) [Nivelul Cadrului European Comun de Referință Pentru Limbi Străine](#)

Competențe și aptitudini organizatorice

Manager proiecte de cercetare  
Management de cercetare  
Organizator de evenimente științifice  
Conducător de doctorate  
**Președintele Societății Europene de Chimie Matematică**

Competențe și aptitudini de utilizare a calculatorului

- Microsoft Office (Word, Excel, PowerPoint)  
- Computational chemistry specific software  
- MathCAD, statistical software

Competențe și aptitudini artistice

Poet

Permis de conducere

B1

**Anexe**

Enumerați documentele anexate CV-ului. (Rubrică facultativă, vezi instrucțiunile)

### Premii științifice

- 1991 Prize of Romanian Academy of Sciences
- 2001 Prize of "Babes-Bolyai" University, Cluj, Romania
- 2002 Prize of Scientific Excellence, "Babes-Bolyai" University, Cluj, Romania
- 2003 Prize of Scientific Excellence, "Babes-Bolyai" University, Cluj, Romania
- 2004 Prize of Merit, "Babes-Bolyai" University, Cluj, Romania
- 2005 Prize of Scientific Excellence, "Babes-Bolyai" University, Cluj, Romania
- 2006 Prize of "Babes-Bolyai" University, Cluj, Romania, for the best books
- 2008 Prize of "Babes-Bolyai" University, Cluj, Romania, for the best books

### Membru în comisii de redacție

- 1996 - Croatica Chemica Acta
- 1996 - 2005 Studia Universitatis "Babes-Bolyai", Seria Chemia
- 1999 - Acta Universitatis Cibiniensis
- 2000 - MATCH, Commun. Math. Comput. Chem.
- 2001 - Internet Electronic Journal of Molecular Design
- 2005 - Carpathian Journal of Mathematics
- 2008 - Iranian Journal of Mathematical Chemistry
- 2008 - Senior Editor, International Journal of Chemical Modeling, NOVA Publishers, New York, USA.

## Stagii de cercetare/Prezentări

1990 - Zelinsky Institute of Organic Chemistry, Russian Academy, Moscow, Russia.  
1996 - Rudger Bošković Institute, Zagreb, Croatia  
1996, 1998, 2005 - Central Chemical Res. Inst., Hungarian Academy, Budapest, Hungary  
1999 - University of Bayreuth, Germany (DAAD)  
2000, 2002 - University of Ilmenau, Germany  
2002 - University of Bielefeld, Germany (DAAD)  
2002 - University of Kiel, Germany  
2002 - Forschungszentrum Karlsruhe, Institut für Nanotechnology, Germany.  
2003 - University of Karlsruhe, Germany  
2003 - University of Erlangen, Germany  
2003 - University of Exeter, UK  
2004 - University of Hiroshima, Japan  
2004 - University of Sendai, Japan  
2004 - University of Tsukuba, Japan  
2005 - Forschungszentrum Karlsruhe, Institut für Nanotechnology, Germany.  
2005 - Technical University of Ilmenau, Germany.  
2005 - K.U. Leuven, Belgium.  
2006 - University of Gent, Belgium.  
2006 - University of Sheffield, U.K.  
2006 - University of Miskolc, Hungary  
2006 - National Institute of Chemistry, Ljubljana, Slovenia  
2006 - University of Valencia, Spain  
2007 - University of Milano-Bicocca, Italy  
2008 - University of Tehran, Iran  
2008 - Technical University, Isfahan, Iran  
2008 - University of Warsaw, Poland  
2008 - Institute for Advanced Study, Collegium Budapest, Hungary  
2009 - University of Kashan, Iran  
2009 - University of Shiraz, Iran  
2009 - Tarbiat Modares University, Tehran, Iran  
2009 - State University, St. Petersburg, Russia  
2009 - University of Ljubljana, Slovenia  
2010 - Tarbiat Modares University, Tehran, Iran  
2010 - University of Shiraz, Iran.  
2010 - Shahid Rajaei Teacher Training University, Tehran  
2011 - University of Niš, Serbia  
2011 - University of Bicocca-Milano, Italy  
2012 - University of Masjed Soleyman, Iran  
2012 - University of Kerman, Iran  
2012 - University of Rafsanjan, Iran  
2012 - University of Yazd, Iran  
2012 - University of Kashan, Iran  
2012 - Max Plank Institute für Chemische Physik fester Stoffe, Dresden, Germany

## Cărți (autor/editor)

1. M. V. Diudea, Nanomolecules and Nanostructures - Polynomials and Indices, MCM, No. 10, Univ. Kragujevac, Serbia, **2010**.
2. M. V. Diudea and Cs. L. Nagy, Periodic Nanostructures, SPRINGER, **2007** (207p).
3. M. V. Diudea, M. S. Florescu, and P. V. Khadikar, Molecular Topology and Its Applications, EFICON, Bucharest, **2006**, 381 pp. (Eficon Press, Bucuresti, ISBN 978-973-87904-0-7)
4. M. V. Diudea, (Ed.), Nanostructures, Novel Architecture, NOVA, New York, **2005**, 420pp.
5. M. V. Diudea; I. Gutman; L. Jäntschi, Molecular Topology, NOVA, New York, **2002**, 329p.
6. M. V. Diudea, (Ed.), QSPR/QSAR Studies by Molecular Descriptors, NOVA, New York, **2001**, 438p.
7. M. V. Diudea; O. Ivanciuc, Molecular Topology, COMPLEX, Cluj, **1995** (in Romanian), 320p.
8. M. V. Diudea ; M. Pitea; M. Butan, Fenothiazines and structurally related drugs. DACIA, Cluj, **1992** (in Romanian), 278p.
9. M. V. Diudea; S. Todor; F. Igna, Aquatic Toxicology. DACIA, Cluj, **1986** (in Romanian). 320p.

## Programe originale

1. M. V. Diudea, B. Parv and O. Ursu, TORUS 3.0, "Babes-Bolyai" University, 2003.
2. O. Ursu and M. V. Diudea, TOPOCLUJ 3.0, "Babes-Bolyai" University, 2004.
3. G. Katona and M. V. Diudea, CLUJSIMIL 1.0, "Babes-Bolyai" University, 2002.
4. Cs. L. Nagy and M. V. Diudea, JSCEM 1.0, "Babes-Bolyai" University, 2004.
5. M. Stefu and M. V. Diudea, CageVersatile, 2.0, "Babes-Bolyai" University, 2004.

6. S. Cigher and M. V. Diudea, Kekule Counter, 1.0, "Babes-Bolyai" University, 2005
7. S. Cigher and M. V. Diudea, Omega Polynomial Counter, 1.0, "Babes-Bolyai" University, 2006.
8. S. Cigher and M. V. Diudea, Cluj Polynomial Counter, 1.0, "Babes-Bolyai" University, 2006.
9. Cs. L. Nagy and M. V. Diudea, Nano Studio, 1.0, "Babes-Bolyai" University, 2009.
10. A. Ilić and M. V. Diudea, Cluj\_Niš Superindex Counter, 1.0, University of Niš, Serbia, 2010.

## Articole/Capitole Cărți

1. I. A. Silberg; V. Farcasan; M. V. Diudea, Free Radicals of Phenothiazine and Related Compounds.III. Selective Chlorination of Phenothiazine with Copper (II) Halides. *J.Prakt.Chem.* **318** (1976) 353-358.
2. I. A. Silberg; M. V. Diudea, Phenazathionium Cations. I. The Dual Mechanistic Behaviour of Phenazathionium Cations and its Implications in the Reaction of  $\text{NaNO}_2$  with Halogenophenothiazines. *Rev.Roum.Chim.* **25** (1980) 1229-1238.
3. I. A. Silberg; M. V. Diudea, Phenazathionium Cations.II. The Accessibility of Positions 1(9) in Nucleophilic Substitutions Involving Phenazathionium Cations. *Rev.Roum.Chim.* **25** (1980) 1239-1244.
4. M. V. Diudea, Phenazathionium Cations.III. Selective Nucleophilic Substitutions on Phenazathionium Cations. *Rev.Roum.Chim.* **26** (1981) 725-732.
5. M. V. Diudea, Phenazathionium Cations.IV. Demonstration on the Structure of 1,3,7-trisubstituted Derivatives of Phenothiazine by Mass Spectrometry and H-NMR. *Rev.Roum.Chim.* **26** (1981) 887-898.
6. M. V. Diudea; I. A. Silberg, Free Radicals of Phenothiazine and Related Compounds. IV. Phenothiazinyl and Diphenothiazine-Copper Complexes as Intermediates and Products in the Interaction of Phenothiazines with Copper (II) Halides, *J.Prakt.Chem.* **324** (1982) 769-776.
7. M. V. Diudea, New Reactions of Phenothiazine Green Cations and their Metal Complexes, *Tetrahedron Lett.* **23** (1982) 1367-1370.
8. M.V. Diudea, Phenazathionium Cations.V. Reactions of G-Cations and their Complexes with Copper and Iron Chlorides, *Rev.Roum.Chim.* **28** (1983) 249-261.
9. M. V. Diudea, A Possible Molecular Model for Pharmacological Action and Metabolism of Phenothiazine and Structurally Related Drugs, *Rev.Roum.Biochim.* **21** (1984) 13-18.
10. M. V. Diudea; V. Farcasan, Condensation Products of 3-Formyl-10-methyl-phenothiazine with Nitrogen Compounds. *Studia Univ."Babes-Bolyai"*, **1986**, 31, 49-
11. S. Mager; I. Cristea; L. Craciun; F. Irimie; M.V. Diudea, New Aminopyrimidinic Derivatives with Potential Biological Activity, *Rev.Roum.Chim.* **36** (1991) 665-670.
12. G. Hazi, Gh. Dragatoiu, M. Diudea, L. Gozariu, Evaluarea funcțională și analitică a dozărilor de TSH prin metoda imunoenzimatică și imunofluorimetrică, *Rom. J. Endocrinol. Metab.*, **2005**, 4 (3), 83-92.
13. G. Hazi, Gh. Dragatoiu, M. Diudea, L. Gozariu, The effectiveness of iodination of consumption salts used in Romania, *Acta Univ. Cibiniensis*, **2005**, 8, 13-20.
14. G. Hazi, L. Gozariu, Gh. Dragatoiu, M. Diudea, [Urinary iodine excretion in pregnant women residing in a former goitrogenic area](#), ACTA ENDOCRINOLOGICA-BUCHAREST 2008, 4 (2), 225-230.
15. G. Hazi, M. V. Diudea, The iodine content of mineral waters, *Studia Univ. "Babes-Bolyai"* (**2008**), 53 (4), 117-122.

## Topologie & Nano

1. M. V. Diudea and I. Silaghi-Dumitrescu, Valence Group Electronegativity as a Vertex Discriminator. *Rev. Roum. Chim.* **1989**, 34, 1175-1182.
2. M. V. Diudea and I. Silaghi-Dumitrescu, Computer Program for Multiple Bond, Cycle and Radical Approximations of DS Index. *Rev. Roum. Chim.* **1991**, 36, 263-269.
3. M. V. Diudea and B. Parv, A New Centric Connectivity Index (CCI). *Commun. Math. Comput. Chem. (MATCH)*, **1988**, 23, 65-87.
4. M. V. Diudea, O. M. Minailiuc, and A. T. Balaban, Regressive Vertex Degrees (New Graph Invariants) and Derived Topological Indices. *J. Comput. Chem.* **1991**, 12, 527-535.
5. M. V. Diudea and L. Bal, Recursive Relationships for Computing the Y-Indices in Some Particular Graphs. *Studia Univ."Babes-Bolyai"*, **1990**, 35, 17-28.
6. M. V. Diudea, T. Cipaianu, and L. Bal, New Y-Type Indices of Molecular Branching. *Studia Univ."Babes-Bolyai"*, **1990**, 35, 29-36.
7. M. V. Diudea, T. Cipaianu, and I. E. Kacso', New Metric Characteristics in Alkanes (4 Trees). *Studia Univ."Babes-Bolyai"*, **1990**, 35, 37-43.
8. M. V. Diudea, D. Horvath, I. E. Kacso', O. M. Minailiuc, and B. Parv, Centricities in Molecular Graphs. The MOLCEN Algorithm, *J. Math. Chem.* **1992**, 11, 259-270.
9. M. V. Diudea and I. E. Kacso', Composition Rules for Some Topological Indices. *Commun. Math. Comput. Chem. (MATCH)*, **1991**, 26, 255-269.
10. I. E. Kacsó, A. G. Baras-Diudea, and M. V. Diudea, Fragmentation of Molecular Graphs within X and Y-Topological Indices. *Rev. Roum. Chim.* **1991**, 36, 455-463.
11. M. V. Diudea, I. E. Kacso', and O. M. Minailiuc, Y-Indices in Homogeneous Dendrimers. *Commun. Math. Comput. Chem. (MATCH)*, **1992**, 28, 61-99.
12. L. Bal, V. Peteanu, and M. V. Diudea Model Building Using Graph Theory: Applications in Molecular Topology and in Path Selection for an Automatic Vehicle. *Eur. Simulat. Multiconf., ESM'92*, York, U. K., **1992**, 213-217.
13. A. T. Balaban and M. V. Diudea Real Number Vertex Invariants: Regressive Distance Sums and Related Topological Indices. *J. Chem. Inf. Comput. Sci.* **1993**, 33, 421-428.
14. M. V. Diudea, D. Horvath, and D. Bonchev, MOLORD Algorithm and Real Number Subgraph Invariants. *Croat. Chem. Acta*, **1995**, 68, 131-148.

15. M. V. Diudea, D. Horvath, and A. Graovac, 3-D Distance Matrices and Related Topological Indices. *J. Chem. Inf. Comput. Sci.* **1995**, 35, 129-135.
16. M. V. Diudea, Layer Matrices in Molecular Graphs. *J. Chem. Inf. Comput. Sci.* **1994**, 34, 1064-1071.
17. M. V. Diudea, M. I. Topan, and A. Graovac, Layer Matrices of Walk Degrees. *J. Chem. Inf. Comput. Sci.* **1994**, 34, 1072-1078.
18. M. V. Diudea, I. E. Kacso', and M. I. Topan, A QSPR/QSAR Study by Using New Valence Group Carbon-Related Electronegativities, *Rev. Roum. Chim.* **1996**, 41, 141-157.
19. M. V. Diudea, Orbital and Wedgeal Subgraph Enumeration in Dendrimers, *Commun. Math. Comput. Chem. (MATCH)*, **1994**, 30, 79-91.
20. M. V. Diudea, The Matriceal Description of Molecular Graphs. *Studia Univ. "Babes-Bolyai"*, **1993**, 38, 1-28.
21. M. V. Diudea, Wiener Index of Dendrimers. *Commun. Math. Comput. Chem. (MATCH)*, **1995**, 32, 71-83.
22. M. V. Diudea, O. M. Minailiuc, and G. Katona, Novel Connectivity Descriptors Based on Walk Degrees. *Croat. Chem. Acta*, **1996**, 69, 857-871.
23. M. V. Diudea, Novel Schultz Analogue Indices. *Commun. Math. Comput. Chem. (MATCH)*, **1995**, 32, 85-103.
24. M. V. Diudea, G. Katona, O. M. Minailiuc, and B. Pârv, Wiener and Hyper-Wiener Indices in Spiro-Graphs. *Izvest. Akad. Nauk, Ser. Khim.* **1995**, 44, 1674-1679; *Russ. Chem. Bull.* **1995**, 44, 1606-1611 (Eng).
25. M. V. Diudea and B. Pârv, Hyper-Wiener Index of Dendrimers. *J. Chem. Inf. Comput. Sci.* **1995**, 35, 1015-1018.
26. M. V. Diudea, O. M. Minailiuc, and G. Katona, SP Indices: Novel Connectivity Descriptors. *Rev. Roum. Chim.* **1997**, 42, 239-249.
27. M. V. Diudea and C. M. Pop, A Schultz-Type Index Based on the Wiener Matrix. *Indian J. Chem.*, **1996**, 35A, 257-261.
28. C. M. Pop, M. V. Diudea, and L. Pejov, Taft Revisited, *Studia Univ. "Babes-Bolyai"*, **1997**, 42, 131-138.
29. M. V. Diudea Walk Numbers  ${}^eW_M$ : Wiener Numbers of Higher Rank. *J. Chem. Inf. Comput. Sci.* **1996**, 36, 535-540.
30. M. V. Diudea, G. Katona, and B. Pârv, Delta Number,  $D_{de}$ , of Dendrimers. *Croat. Chem. Acta*, **1997**, 70, 509-517.
31. M. V. Diudea, O. Ivanciuc, S. Nikolić, and N. Trinajstić, Matrices of Reciprocal Distance. Polynomials and Derived Numbers. *Commun. Math. Comput. Chem. (MATCH)*, **1997**, 35, 41-64.
32. M. Butan, C. M. Pop, and M. V. Diudea, QSAR Study on a Set of Imidazole Derivatives with Antimicrobial and Antimicotic Activity. *Studia Univ. "Babes-Bolyai"*, **1995**, 40, 129-138.
33. O. Ivanciuc, M. V. Diudea, and P. V. Khadikar, New Topological Matrices and Their Polynomials. *Indian J. Chem.* **1998**, 37A, 574-585.
34. M. V. Diudea, C. M. Pop, G. Katona, and A. A. Dobrynin, Dual Descriptors in the Calculation of the Wiener Numbers. *J. Serb. Chem. Soc.* **1997**, 62, 241-250.
35. M. V. Diudea and M. Randić, Matrix Operator,  $W_{(M_1, M_2, M_3)}$  and Schultz-Type Numbers. *J. Chem. Inf. Comput. Sci.* **1997**, 37, 1095-1100.
36. M. V. Diudea, Wiener and Hyper-Wiener Numbers in a Single Matrix. *J. Chem. Inf. Comput. Sci.* **1996**, 36, 833-836.
37. M. V. Diudea, Cluj Matrix  $CJ_u$ : source of various graph descriptors, *Commun. Math. Comput. Chem. (MATCH)*, **1997**, 35, 169-183.
38. M. V. Diudea, O. M. Minailiuc, G. Katona, and I. Gutman, Szeged Matrices and Related Numbers. *Commun. Math. Comput. Chem. (MATCH)*, **1997**, 35, 129-143.
39. M. V. Diudea, Cluj Matrix Invariants. *J. Chem. Inf. Comput. Sci.* **1997**, 37, 300-305.
40. M. V. Diudea, B. Pârv, and M. I. Topan, Derived Szeged and Cluj Indices. *J. Serb. Chem. Soc.* **1997**, 62, 267-276.
41. M. V. Diudea, Indices of Reciprocal Property or Harary Indices. *J. Chem. Inf. Comput. Sci.* **1997**, 37, 292-299.
42. M. V. Diudea and I. Gutman, Wiener-Type Topological Indices. *Croat. Chem. Acta*, **1998**, 71, 21-51.
43. O. Ivanciuc, T. Ivanciuc, and M. V. Diudea, Molecular Graph Matrices and Derived Structural Descriptors. *SAR/QSAR Environ. Res.* **1997**, 7, 63-87.
44. A. A. Kiss, G. Katona, and M. V. Diudea, Szeged and Cluj Matrices within the Matrix Operator  $W_{(M_1, M_2, M_3)}$ . *Coll. Sci. Papers Fac. Sci. Kragujevac*, **1997**, 19, 95-107.
45. M. V. Diudea, Valencies of Property. *Croat. Chem. Acta*, **1999**, 72, 835-851.
46. I. Gutman and M. V. Diudea, Defining Cluj Matrices and Cluj Matrix Invariants. *J. Serb. Chem. Soc.* **1998**, 63, 497-504.
47. M. V. Diudea, B. Parv, and I. Gutman, Detour-Cluj Matrix and Derived Invariants. *J. Chem. Inf. Comput. Sci.* **1997**, 37, 1101-1108.
48. M. V. Diudea, G. Katona, I. Lukovits, and N. Trinajstić, Detour and Cluj-Detour Indices. *Croat. Chem. Acta*, **1998**, 71, 459-471.
49. A. A. Kiss, I. E. Kacso, O. M. Minailiuc, M. V. Diudea, S. Nikolić, and I. Gutman, Szeged Indices: Vertex and Fragmental Descriptors. *Studia Univ. "Babes-Bolyai"*, **1997**, 42, 183-192; *Kragujevac J. Sci.* **2000**, 22, 49-58.
50. O. M. Minailiuc, G. Katona, M. V. Diudea, M. Strunje, A. Graovac, and I. Gutman, Szeged Fragmental Indices. *Croat. Chem. Acta*, **1998**, 71, 473-488.
51. I. Schirger and M. V. Diudea, Modeling Biological Properties by Szeged Fragmental Indices. *Studia Univ. "Babes-Bolyai"*, **1997**, 42, 269-280.
52. I. Gutman and M. V. Diudea, Correcting the Definition of Cluj Matrices. *Commun. Math. Comput. Chem. (MATCH)*, **1998**, 37, 195-201.
53. M. V. Diudea, A. A. Kiss, E. Estrada, N. Guevara, Connectivity-, Wiener- and Harary-Type Indices of Dendrimers. *Croat. Chem. Acta*, **2000**, 73, 367-381.
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55. O. Ivanciuc, T. Ivanciuc, and M. V. Diudea, Polynomials and Spectra of Molecular Graphs. *Roum. Chem. Quart. Rev.* **1999**, 7, 41-67.
56. M. V. Diudea, L. Jantschi, and L. Pejov, Topological Substituent Descriptors. *Leon. El. J. Pract. Technol.*, **2002**, 1, 1-18.
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60. M. V. Diudea, Cyclic Graphs with Degenerate Sequences. *Rev. Roum. Chim.* **2002**, 47, 1099-1110.
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65. A. A. Kiss, G. Turcu, and M. V. Diudea Correlating Studies by Cluj and Szeged Indices. *Studia Univ. "Babes-Bolyai"*, **2001**, *45*, 99-106.
66. M. V. Diudea and A. Graovac, Generation and Graph-Theoretical Properties of  $C_4$ -Tori. *Commun. Math. Comput. Chem. (MATCH)*, **2001**, *44*, 93-102.
67. M. V. Diudea, I. Silaghi-Dumitrescu, and B. Parv, Toranes versus Torenes. *Commun. Math. Comput. Chem. (MATCH)*, **2001**, *44*, 117-133.
68. M. V. Diudea and P. E. John, Covering Polyhedral Tori. *Commun. Math. Comput. Chem. (MATCH)*, **2001**, *44*, 103-116.
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