List of Published CC Papers (Popis objavljenih CC radova)

2003

1) D. Vukičević, N. Trinajstić, Modified Zagreb M_2 Index - Comparison with the Randić Connectivity Index for Benzenoid Systems, *Croat. Chem. Acta*, **76** (2) (2003), 183-187.

2004

2) I.Gutman, B.Furtula, D.Vukicevic, and B.Arsic, Equiseparable molecules and molecular graphs, *Indian J. Chem.*, *Sect A*, **43** (2004) 7-10.
3) I. Gutman, D. Vukičević, A. Graovac and M. Randić, Algebraic Kekulé Structures of Benzenoid Hydrocarbons, *J. Chem. Inf. Comput. Sci.* **44** (2004) 296-299.
4) I. Gutman, D. Vukičević, and J. Žerovnik, A Class of Modified Wiener Indices, *Croat. Chem. Acta*, **77** (2004) 103-109.
5) D. Vukičević and A. Graovac, On Molecular Graphs with Valencies 1, 2 and 4 with Prescribed Number of Bonds, *Croat. Chem. Acta*, **77** (2004) 313-319.
6) D. Vukičević, M. Randić and A.T. Balaban, Partitioning of π-electrons in Rings of Polycyclic Benzenoid Hydrocarbons. Part 4: Benzenoid with more than one Geometric Kekulé Structure Corresponding to the Same Algebraic Kekulé Structure, *J. Math. Chem,* **36** (3) (2004) 271-279.
7) D. Vukičević and A. Graovac, Which Valence Connectivities Are Realizing Monocyclic Molecules: Generating Algorithm and Its Application to Test Discriminative Properties of Zagreb and Modified Zagreb Index, *Croat. Chem. Acta*, **77** (2004) 481-490.
8) D. Vukičević and A. Graovac, Valence Connectivity Versus Randić, Zagreb and Modified Zagreb Index: A Linear Algorithm to Check Discriminative Properties of Indices in Acyclic Molecular Graphs, *Croat. Chem. Acta*, **77** (2004) 501-508.

2005

9) D. Vukičević and M. Randić, On Kekulé Structures of Buckminsterfullerene, *Chem. Phys. Lett*, **401** (2005) 446-450.
10) D. Vukičević, A. Miličević, S. Nikolić, J. Sedlar, and N. Trinajstić, Paths and Walks in Acyclic Structures: Kenographs vs. Plerographs, *Arkivoc*, **10** (2005), 33-44.
11) D. Vukičević and D. J. Klein, Charactrization of Distribution of Pi-Electrons Amongst Benzenoid Rings for Randic's "Algebraic" Kekulé Structures, *J. Math. Chem*, **37** (2) (2005) 163-170.
12) D. Vukičević and A. Graovac, Compact Valence Sequences for Molecules with Single, Double and Triple Covalent Bonds, *Croat. Chem. Acta,* **78** (2005), 203-209.
13) D. Vukičević, H. W. Kroto, and M. Randić, Atlas of Kekulé Valence Structures of Buckminsterfullerene, *Croat. Chem. Acta,* **78** (2005), 223-234.
14) D. Vukičević and N. Trinajstić, Comparison of the Hosoya Z-Indices for Simple and General Graphs of the Same Size, *Croat. Chem. Acta,* **78** (2005), 235-239.
15) A. Graovac, D. Vukičević, D. Ježek, and J. Žerovnik, Simplified Computation of Matchings in Polygraphs, *Croat. Chem. Acta,* **78** (2005) 283-287.
16) M. Randić, N. Lerš, D. Vukičević, D. Plavšić, S. C. Basak, and B. D. Gute, On Canonical Labeling of Proteome Maps, *J. Proteome Res,* **4** (4) (2005) 1347-1352.
17) D. Vukičević and J. Žerovnik, Altered Wiener Indices, *Acta. Chim. Slov*, **52** (2005) 272 – 281.

18) D. Vukičević, T. Grubeša, and A. Graovac, An efficient method to enumerate topologically distinct cluster of hydrogen-bonding in water molecules, *Chem. Phys. Lett*, **416** (4-6) (2005) 212-214.

19) D. Plavšić, D. Vukičević and M. Randić, On Canonical Numbering of Carbon Atoms in Fullerenes: C_{60} Buckminsterfullerene, *Croat. Chem. Acta*, **78** (2005) 493-502.

2006

20) S. M. Rajtmajer, A. Miličević, N. Trinajstić, M. Randić, and D. Vukičević, On the Complexity of Archimedian Solids, *J. Math. Chem* **39** (1) (2006) 119-132.

21) J. Sedlar, I. Anđelić, I. Gutman, D. Vukičević, and A. Graovac, Vindicating the Pauling-bond-order concept, *Chem. Phys. Lett*, **427** (2006) 418-420.

22) D. Veljan and D. Vukičević, On Acyclic Molecular Graphs with Prescribed Numbers of Edges that Connect Vertices with Given Degrees, *J. Math. Chem,* **40** (2006) 155-178.

23) A. Graovac, D. Vukičević and J. Žerovnik, On Algebraic and Geometric Kekule Strucutures in Benzenoid Rotagraphs, *Croat. Chem. Acta,* **79** (2006) 363-371.

24) D. Vukičević, I. Gutman, and M. Randić, On Instability of Fullerene C_{72}, *Croat. Chem. Acta,* **79** (2006) 429-436

25) M. Randić and D. Vukičević, Kekulé Strucutres of Fullerene C_{70}, *Croat. Chem. Acta,* **79** (2006) 471-481.

26) D. Vukičević, I. Lukovits, and N. Trinajstić, Counting Kekulé Strucutres of Benzenoid Parallelograms Containing One Additional Benzene Ring, *Croat. Chem. Acta,* **79** (2006) 509-512.

2007

27) M. V. Diudea and D. Vukičević: Kekulé Strucutre Count in Corazulenic Fullerenes, *J. Nanosci. Nanotechnol*, **7** (2007) 1321-1328

28) T. Došlić and D. Vukičević, Computing Bipartite Edge Frustration of Fullerne Graphs, *Discrete Appl. Math,* **155** (10) (2007), 1294-1301.

29) Q. Dai, X. Q. Liu, T.-M. Wang, and D. Vukičević, Linear Regression Model of DNA Sequences and Its Application, *J. Proteome Research*, **28** (8) (2007) 1434-1445.

30) M. Randić, H. Kroto and D. Vukičević, Numerical Kekulé Strucutres and Partitioning of π-Electrons to Pentagonal and Hexagonal Rings, *J. Chem. Inf. Model*, **47** (2007) 897-904.

31) D. Vukičević and A. Graovac, Compact Valence Sequences for Molecules with Single, Double and Triple Covalent Bonds II: Graphs with Non-trivial Cycles, *Croat. Chem. Acta*, **80** (2) (2007) 159-164.

32) P. Hansen and D. Vukičević, Comparing the Zagreb Indices, *Croat. Chem. Acta*, **80** (2) (2007) 165-168.

33) D. Vukičević and A. Klobučar, *K*-dominating sets on the linear benzenoid and on the infinite hexagonal grid, *Croat. Chem. Acta*, **80** (2) (2007) 187-191.

34) D. Vukičević, J. Sedlar and S. M. Rajtmajer, A Graph Theoretical Method for the Partial Ordering of Alkanes, *Croat. Chem. Acta*, **80** (2) (2007) 169-179.

35) D. Janežić, B. Lučić, A. Miličević, S. Nikolić, N. Trinajstić i D. Vukičević, Hosoya Matrices as the Numerical Realization of Graphical Matrices and Derived Structural Descriptors, *Croat. Chem. Acta*, **80** (2) (2007) 271-276.

36) D. Vukicevic, B. Zhou, and N. Trinajstic, Altered Wiener Indices of Thorn Trees, *Croat. Chem. Acta*, **80** (2) (2007) 283-285.

37) D. Vukičević and N. Trinajstić, On the anti-forcing number of benzenoids, *J. Math. Chem.* **42** (3) 2007, 575-583.

38) N. Trinajstić and D. Vukičević, Mathematical studies of Kekule strucutres, *Struct. Chem,* **18** (2007) 807-812.

39) D. Janežić, A. Miličević, S. Nikolić, N. Trinajstić and D. Vukičević, Zagreb Indices: Extension to Weighted Graphs Representing Molecules Containing Heteroatoms, *Croat. Chem. Acta,* **80** (3-4) (2007) 541-545.

2008

40) D. Vukičević and N. Trinajstić, On the anti-Kekule number and anti-forcing number of cata-condensed benzenoids, *J. Math. Chem,* **43** (2) (2008) 719-726.

41) Alexandru T. Balaban, Milan Randić, and Damir Vukičević, Partition of π-Electrons between Faces of Polyhedral Carbon Aggregates, *J. Math. Chem.* **43** (2) (2008) 773-779.

42) G. Zdunić, I. Pejić, J. Karoglan Kontić, D. Vukičević, A. Vokurka, I. Pezo and E. Maletić, Comparison of genetic and morhological data for inferring similarity among native Dalmatian (Croatia) grapevine cultivars (Vitis viniferia L.), *J. Food Agric. Environ,* **6** (2) (2008) 333-336.

43) D. Vukičević and P. Žigert, Binary Coding of Algebraic Kekule Structures of Catacondensed Benzenoid Graphs, *Appl. Math. Lett,* **21** (2008) (7) 712-716.

44) D. Vukičević and A. Graovac, An Algorithm to Enumerate a Special Class of Digraphs: Application to Water Clusters, *Croat. Chem. Acta,* **81** (2008) 347-350.

45) D. Vukičević and A. T. Balaban, Note on ordering and complexity of Platonic and Archimedean polyhedra based on solid angles, *J. Math. Chem,* **44** (2008) 725-730.

46) D. Vukičević, A. Beteringhe, T. Constantinsceu, M. Pompe and A. T. Balaban, Statistical investigation of new topological indices based on the molecular path code, *Chem. Phys. Lett,* **464** (2008) 155-159.

2009

47) M. Randić, K. Mehulić, D. Vukičević, T. Pisanski, D. Vikić-Topić, and D. Plavšić, Graphical Representation of Proteins as Four-Color Maps and Their Numerical Characterization, *J. Mol. Graphics Modell,* **27** (5) (2009) 637-641.

48) K. Kutnar, D. Marušić and D. Vukičević, On decompositions of leapfrog Fullerenes, *J. Math. Chem,* **45** (2) (2009) 406-416.

49) D. Vukičević, S. Nikolić and N. Trinajstić, On the path-Zagreb matrix, *J. Math. Chem,* **45** (2) (2009) 538-543.

50) S. Cigher, D. Vukičević and M. Diudea, On Kekulé structures count, *J. Math. Chem,* **45** (2) (2009) 279-286.

51) D. Vukičević and A. Graovac, On Functionalized Fullerenes $C_{60}X_n$, *J. Math. Chem,* **45** (2) (2009) 557-562.

52) K. Kutnar, J. Sedlar and D. Vukičević, On the Anti-Kekulé number of leap-frog fullerenes, *J. Math. Chem,* **45** (2) (2009) 431-441.

53) D. Vukičević, S. Cigher and M. Diudea, Analytical formulas for Kekulé structures number in (6,3)VH t [6, n] and (6,3)VH t [8, n] tori, *J. Math. Chem,* **45** (2) (2009), 525-537.

54) A. E. Vizitiu, Cs. L. Nagy, M. Stefu, G. Katona, M. V. Diudea, B. Parv and D. Vukičević: Tubercular fulleroids, *J. Math. Chem,* **45** (2) (2009), 513-524.

55) Boris Furtula, Ante Graovac, Damir Vukičević: Atom-bond connectivity index of trees, *Discrete Appl. Math,* 157 (13) (2009) 2828-2835.

56) B. Zhou and D. Vukičević, On Wiener-type polynomials of thorn graphs, *J. Chemom,* **23** (12) (2009) 600-604.

57) D. Vukičević and B. Furtula, Topological index based on the ratios of geometrical and arithmetical means of end-vertex degrees of edges, *J. Math. Chem*, **46** (4) (2009) 1369-1376.

58) D. Juretić, D. Vukičević, N. Ilić, N. Antcheva and A. Tossi, Design of selective peptide antibiotics by using the sequence moment concept, *J. Chem. Inf. Model*, **49** (12) (2009) 2873–2882.

2010

59) B. Furtula, A. Graovac and D. Vukicevic, Augmented Zagreb index, *J. Math. Chem*, **48** (2) (2010) 370-380.

60) D. Vukičević, M. Bralo, A. Klarić, A. Markovina, D. Spahija, A. Tadić, and A. Žilić, One-Two Descriptor, , *J. Math. Chem*, **48** (2) (2010) 395-400.

61) D. Vukičević and A. Graovac: Note on the Comparison of the First and Second Normalized Zagreb Eccentricity Indices, *Acta Chim. Slov*, **57** (2010) 524-528.

62) D. Vukičević: Which Generalized Randić Indices are Suitable Measure of Molecular Branching, *Discrete Appl. Math*, **158** (18) (2010) 2056-2065.

63) S. M. Rajtmajer, D. Vukičević: A Note on the Estrada Communicability Algorithm for Detecting Community Structure in Complex Networks, Applied Mathematics and Computation, *Appl. Math. Comput.* **217** (2010) 3516–3521.

64) D. Vukičević, F. Cataldo, O. Ori, and A. Graovac: Topological efficiency of C_{66} fullerene, *Chem. Phys. Lett*, **501** (2011) 442-445.

65) M. Randić, D. Plavšić, and D. Vukičević: π-Electron Currents in Fully Aromatic Benzenoids, *J. Indian Chem. Soc*, **88** (2011) 13-23.

66) D. Juretić, D. Vukičević, D. Petrov, M. Novković, V. Bojović, B. Lučić, N. Ilić and A. Tossi: Knowledge-based computational methods for identifying or designing novel, non-homologous antimicrobial peptides, Eur Biophys J, **40** (2011) 371–385.

67) D. Vukičević and M. Gašperov: Bond Additive Modelling 1. Adriatic Indices, *Croat. Chem. Acta*, **83** (3) (2010), 243-260.