Sombor je ušao u svetsku nauku

Tokom leta 2020. godine, dok je boravio u Somboru, Ivan Gutman je razradio jednu hemijsku teoriju u okviru koje se pojavljuje jedna nova veličina, takozvani topološki indeks. Ivan Gutman je predložio da se on nazove "*somborski indeks*" (engleski: *Sombor index*). Članak u kojem je izložena pomenuta teorija, naišao je na neočekivano veliko interesovanje. Za manje od godinu dana, o somborskom indeksu napisano je pedesetak naučnih radova, a novi se i dalje pojavljuju. Za nas je značajno da su svi autori koji su se bavili ovom temom koristili naziv "Sombor index". Tako danas sa sigurnošću možemo tvrditi da je ovaj naziv univerzalno prihvaćen u svetskoj nauci.

Od sada, za sva buduća vremena,

ime grada Sombora postalo je pojam u nauci.

* * * * *

Prvi rad o somborskom indeksu je:

I. Gutman, Geometric approach to degree–based topological indices: Sombor indices, *MATCH Communications in Mathematical and in Computer Chemistry* **86** (2021) 11–16.

U tom radu, na strani 14, nalazi se fusnota:

The ideas outlined in this paper emerged in Sombor, in the Summer of 2020, mainly during the time that the author was spending on chemodialysis.

[Ideje izložene u ovom radu nastale su u Somboru, tokom leta 2020. godine, uglavnom dok je autor boravio na hemodijalizi.]

* * * * *

Naučnici koji su do sada istraživali somborski indeks, osim Srbije rade u sledećim zemljama:

Australija, Bahrein, Bangladeš, Brunej, Crna Gora, Čile, Egipat, Etiopija, Hrvatska, Indija, Indonezija, Irak, Iran, Jemen, Južna Koreja, Kanada, Kina, Kolumbija, Mađarska, Malezija, Meksiko, Mongolija, Norveška, Pakistan, Rumunija, Saudijska Arabija, Singapur, Sjedinjene Američke Države, Slovačka, Slovenija, Sudan, Španija, Tajvan, Togo, Turska, Ujedinjeni Arapski Emirati, Velika Britanija, Vijetnam

Naučni radovi o somborskom indeksu
(koji ga pominju u naslovu)

0. I. Gutman, Geometric approach to degree–based topological indices: Sombor indices, *MATCH Communications in Mathematical and in Computer Chemistry* **86** (2021) 11–16.

==========

1. A. Aashtab, S. Akbari, S. Madadinia, M. Noei, F. Salehi, On the graphs with minimum Sombor index, *MATCH Communications in Mathematical and in Computer Chemistry* **88** (2022) 553–559.

2. R. Abdolhosseinzadeh, F. Rahbarnia, M. Tavakoli, Sombor index under some graph products, *Mathematics Interdisciplinary Research* **7** (2022) 331–342.

3. K. Abirami, N. Mohanapriya, On Sombor index of m-shadow graph of some graphs, *Kongunadu Research Journal* **9**(2) (2022) 22–32.

4. R. Aguilar–Sánchez, J. A. Méndez–Bermúdez, J. M. Rodríguez, J. M. Sigarreta, Normalized Sombor indices as complexity measures of random networks, *Entropy* **23**(8) (2021) #976, 17 pp.

5. S. Akbari, M. Habibi, S. Rouhani, A note on an inequality between energy and Sombor index of a graph, *MATCH Communications in Mathematical and in Computer Chemistry* **90** (2023) 765–771.

6. A. Ali, I. Ž. Milovanović, A. M. Albalahi, A. M. Alanazi, A. E. Hamza, Solutions to some open problems about four Sombor-index-like graph invariants, *MATCH Communications in Mathematical and in Computer Chemistry* **90** (2023) 505–512.

7. A. Ali, S. Noureen, A. A. Bhatti, A. M. Albalahi, On optimal molecular trees with respect to Sombor indices, *AIMS Mathematics* **8**(3) (2023) 5369–5390.

8. A. Alidadi, A. Parsian, H. Arianpoor, The minimum Sombor index for unicyclic graphs with fixed diameter, *MATCH Communications in Mathematical and in Computer Chemistry* **88** (2022) 561–572.

9. S. Alikhani, N. Ghanbari, Sombor index of polymers, *MATCH Communications in Mathematical and in Computer Chemistry* **86** (2021) 715–728.

10. A. Alsinai, B. Basavanagoud, M. Sayyed, M. R. Farahani, Sombor index of some nanostructures, *Journal of Prime Research in Mathematics* **17**(2) (2021) 123–133.

11. S. Amin, A. Ur Rehman Virk, M. A. Rehman, N. A. Shah, Analysis of dendrimer generation by Sombor indices, *Hindawi Journal of Chemistry* **2021** (2021) #9930645, 11 pp.

12. D. V. Anchan, S. D'Souza, H. J. Gowtham, P. G. Bhat. Sombor energy of a graph with self-loops, *MATCH Communications in Mathematical and in Computer Chemistry* **90** (2023) 773–786.

13. N. E. Arif, A. H. Karim, R. Hasni, Sombor index of some graph operations, *International Journal of Nonlinear Analysis and Applications* **13**(1) (2022) 2561–2571.

14. F. Asif, Z. Zahid, M. N. Husin, M. Cancan, Z. Taş, M. Alaeiyan, M. R. Farahani, On Sombor indices of line graph of silicate carbide $Si_2C_3 - I[p, q]$, *Journal of Discrete Mathematical Sciences and Cryptography* **25** (2022) 301–310.

15. B. Basavanagoud, G. Veerapur, Computation of Sombor indices of otis(biswapped) networks, *Journal of the Chungcheong Mathematical Society* **35**(3) (2022) 205–225.

16. B. Basavanagoud, G. Veerapur, Chemical applicability of second order Sombor index, *Journal of the Indonesian Mathematical Society* **29** (2023) 135–149.

17. M. Bašić, M. Milenković, Maximum values of the Sombor-index-like graph invariants of connected graphs, *arXiv* (2023), DOI: arXiv: 2305.02925, 20 pp.

18. A. Bharali, J. Buragohain, A. Doley, QSPR analysis of some novel extension and generalization of Sombor Index, *Iranian Journal of Mathematical Chemistry* **13** (2022) 73–84.

19. H. Chen, W. Li, J. Wang, Extremal values on the Sombor index of trees, *MATCH Communications in Mathematical and in Computer Chemistry* **87** (2022) 23–49.

20. Y. Chen, H. Hua, The relations between the Sombor index and Merrifield–Simmons index, *Filomat* **37** (2023) 4785–4794.

21. P. Chinglensana, S. M. Mawiong, On Sombor coindex of graphs, *arXiv* (2021), DOI: arXiv: 2109.03108, 13 pp.

22. P. Chinglensana, S. M. Mawiong, On general Sombor index, *arXiv* (2021), DOI: arXiv: 2110.03225, 11 pp.

23. Ö. Çolakoğlu Havare, Sombor topological indices of thorn graphs and its chemical application, u knjizi: H. Sendir (Ed.), *Proceedings of International Conference on Engineering & Natural Sciences*, Burdur, Turkey, 2022, pp. 6–12.

24. R. Cruz, I. Gutman, J. Rada, Sombor index of chemical graphs, *Applied Mathematics and Computation* **399** (2021) #126018, 9 pp.

25. R. Cruz. J. Monsalve, J. Rada, Sombor index of directed graphs, *Heliyon* **8** (2022) #e09035, 5 pp.

26. R. Cruz, J. Rada, Extremal values of the Sombor index in unicyclic and bicyclic graphs, *Journal of Mathematical Chemistry* **59** (2021) 1098–1116.

27. R. Cruz, J. Rada, J. Sigarreta, Sombor index of trees with at most three branch vertices, *Applied Mathematics and Computation* **409** (2021) #126414, 9 pp.

28. I. Damnjanović, M. Milošević, D. Stevanović, A note on extremal Sombor indices of trees with a given degree sequence, *MATCH Communications in Mathematical and in Computer Chemistry* **90** (2023) 197–202.

29. I. Damnjanović, D. Stevanović, Greedy trees have minimum Sombor indices, *arXiv* (2022), DOI: arXiv: 2211.05559, 12 pp.

30. I. Damnjanović, D. Stevanović, An alternative proof of the Sombor index minimizing property of greedy trees, *Publications de l'Institut Mathématique* (Beograd) **113** (2023) 57–65.

31. J. Das, On extremal Sombor index of trees with a given independence number α, *arXiv* (2022), DOI: arXiv: 2212.10045, 8 pp.

32. J. Das, Y. Prajapaty, On Sombor index of unicyclic graphs with a fixed number of pendant vertices, *arXiv* (2022), DOI: arXiv: 2212.07732, 11 pp.

33. K. C. Das, A. S. Çevik, I. N. Cangul, Y. Shang, On Sombor index, *Symmetry* **13**(1) (2021) #140, 12 pp.

34. K. C. Das, A. Ghalavand, A. R. Ashrafi, On a conjecture about the Sombor index of graphs, *Symmetry* **13**(10) (2021) #1830, 13 pp.

35. K. C. Das, I. Gutman, On Sombor index of trees, *Applied Mathematics and Computation* **412** (2022) #126525, 8 pp.

36. K. C. Das, Y. Shang, Some extremal graphs with respect to Sombor index, *Mathematics* **9**(11) (2021) #1202, 15 pp.

37. H. Deng, Z. Tang, R. Wu, Molecular trees with extremal values of Sombor indices, *International Journal of Quantum Chemistry* **121**(11) (2021) #e26622, 9 pp.

38. V. Devaragudi, B. Chaluvaraju, Block Sombor index of a graph and its matrix representation, *Open Journal of Applied Discrete Mathematics* **6** (2023) 1–11.

39. B. K. Divyashree, R. Jagadeesh, Siddabasappa, Sombor indices of $TUAC_6$ and $TUZC_6$ nanotubes, *Journal of Applied Chemical Science International* **13**(4) (2022) 70–79.

40. S. Dorjsembe, B. Horoldagva, Reduced Sombor index of bicyclic graphs, *Asian-European Journal of Mathematics* **15**(7) (2022) #2250128, 8 pp.

41. T. Došlić, T. Réti, A. Ali, On the structure of graphs with integer Sombor indices, *Discrete Mathematics Letters* **7** (2021) 1–4.

42. Z. Du, L. You, H. Liu, Y. Huang, The Sombor index and coindex of two-trees, *AIMS Mathematics* **8**(8) (2023) 18982–18994.

43. Z. Du, L. You, H. Liu, Y. Huang, The Sombor index and coindex of chemical graphs, *Polycyclic Aromatic Compounds*, DOI: 10.1080/10406638.2023.2225683, 24 pp.

44. S. Ediz, M. Ş. Ademir, İ. Çifçi, A note on vertex-edge degree Sombor index of silicate and oxygen networks, *MATI* **4**(2) (2022) 23–33.

45. X. Fang, L. You, H. Liu, The expected values of Sombor indices in random hexagonal chains, phenylene chains and Sombor indices of some chemical graphs, *International Journal of Quantum Chemistry* **121**(17) (2021) #e26740, 15 pp.

46. S. Filipovski, Relations between Sombor index and some topological indices, *Iranian Journal of Mathematical Chemistry* **12** (2021) 19–26.

47. W. Gao, On the conjecture about the exponential reduced Sombor index, *arXiv* (2022), DOI: arXiv: 2209.00787, 8 pp.

48. A. Ghalavand, M. Tavakoli, Another approach to a conjecture about the exponential reduced Sombor index of molecular trees, *Iranian Journal of Mathematical Chemistry* **13** (2022) 99–108.

49. N. Ghanbari, On the Sombor characteristic polynomial and Sombor energy of a graph, *Computational and Applied Mathematics* **41**(6) (2022) #242, 14 pp.

50. N. Ghanbari, S. Alikhani, Sombor index of certain graphs, *Iranian Journal of Mathematical Chemistry* **12** (2021) 27–37.

51. N. Ghanbari, S. Alikhani, Sombor-index-like invariants of some graphs, *arXiv* (2022), DOI: arXiv: 2208.02091, 13 pp.

52. M. Ghods, Z. Rostami, Sombor indices of silicon carbide graphs, *arXiv* (2021), DOI: arXiv: 2112.09947, 18 pp.

    M. Ghods, Z. Rostami, Sombor indices of silicon carbide graphs, *Authorea* July 09, 2022, DOI: 10.22541/au.165734467.79288731, 18 pp.

53. K. J. Gowtham, Entropy measures of some nanotubes using Sombor index, *NanoNEXT* **3**(3) (2022) 1–5.

54. K. J. Gowtham, I. Gutman, On characteristic polynomial and energy of Sombor matrix, *Open Journal of Discrete Applied Mathematics* **4**(3) (2021) 29–35.

55. K. J. Gowtham, N. N. Swamy, On Sombor energy of graphs, *Nanosystems: Physics, Chemistry, Mathematics* **12** (2021) 411–417.

56. A. Gürsoy, A. Ülker, N. K. Gürsoy, Sombor index of zero-divisor graphs of commutative rings, *Analele Universitatii "Ovidiu" Constanta – Seria Matematica* **30**(2) (2022) 231–257.

57. I. Gutman, Sombor index – one year later, *Bulletin de l'Académie Serbe des Sciences et des Arts (Classe des Sciences Mathématiques et Naturelles)* **153** (2020) 43–55.

58. I. Gutman, Some basic properties of Sombor indices, *Open Journal of Discrete Applied Mathematics* **4**(1) (2021) 1–3.

59. I. Gutman, Spectrum and energy of the Sombor matrix, *Vojno tehnički glasnik* **69** (2021) 551–561.

60. I. Gutman, TEMO theorem for Sombor index, *Open Journal of Discrete Applied Mathematics* **5**(1) (2022) 25–28.

61. I. Gutman, Sombor indices – back to geometry, *Open Journal of Discrete Applied Mathematics* **5**(2) (2022) 1–5.

62. I. Gutman, Note on the temperature Sombor index, *Vojno tehnički glasnik* **61** (2023) 507–515.

63. I. Gutman, N. K. Gürsoy, A. Gürsoy, A. Ülker, New bounds on Sombor index, *Communications in Combinatorics and Optimization* **8** (2023) 305–311.

64. I. Gutman, V. R. Kulli, I. Redžepović, Sombor index of Kragujevac trees, *Scientific Publications of the State University of Novi Pazar. Series A: Applied Mathematics, Informatics & Mechanics* **13** (2021) 61–70.

65. I. Gutman, I. Redžepović, Sombor energy and Hückel rule, *Discrete Mathematics Letters* **9** (2022) 67–71.

66. I. Gutman, I. Redžepović, V. R. Kulli, KG-Sombor index of Kragujevac trees, *Open Journal of Discrete Applied Mathematics* **5**(2) (2022) 19–25.

67. I. Gutman, I. Redžepović, J. Rada, Relating energy and Sombor energy, *Contributions to Mathematics* **4** (2021) 41–44.

68. K. Hamid, M. W. Iqbal, A. U. R. Virk, M. U. Ashraf, A. M. Alghamdi, A. A. Bahaddad, K. A. Almarhabi, K-Banhatti Sombor invariants of certain computer networks, *Computers, Materials & Continua* **73**(1) (2022) 15–30.

69. K. Hamid, H. A. B. Muhammad, M. W. Iqbal, M. A. Hamza, S. U. Bhatti, Extendable Banhatti Sombor indices for modeling certain computer networks, *Journal of Jilin University (Engineering and Technology Edition)* **41**(11) (2022) 69–87.

70. A. E. Hamza, A. Ali, On a conjecture regarding the exponential reduced Sombor index of chemical trees, *Discrete Mathematics Letters* **9** (2022) 107–110.

71. A. E. Hamza, Z. Raza, A. Ali, Z. Alsheekhhussain, On Sombor indices of tricyclic graphs, *MATCH Communications in Mathematical and in Computer Chemistry* **90** (2023) 223–234.

72. N. Harish, B. Sarveshkumar, B. Chaluvaraju, The reformulated Sombor index of a graph, *Transactions on Combinatorics*, DOI: 10.22108/TOC.2022.134155.1994, 16 pp.

73. S. Hayat, M. Arshad, K. C. Das, On the Sombor index of graphs with given connectivity and number of bridges, *arXiv* (2022), DOI: arXiv: 2208.09993, 19 pp.

74. S. Hayat, M. Arshad, I. Gutman, Proofs to some open problems on the maximum Sombor index of graphs, *Computational and Applied Mathematics* **42**(6) (2023) #279, 11 pp.

75. S. Hayat, A. Rehman, On Sombor index of graphs with a given number of cut-vertices, *MATCH Communications in Mathematical and in Computer Chemistry* **89** (2023) 437–450.

76. S. Hayat, A. Rehman, Y. Zhong, On Sombor index of graphs with a given number of cut-vertices, *arXiv* (2022), DOI: arXiv: 2203.08438, 11 pp.

77. S. Hegde, G. Sharma, R. Hegde, Sombor index of certain standard graphs, *AIP (American Institute of Physics) Conference Proceedings* **2516** (2022) #210005, 7 pp.

78. R. Hemalatha, K. Somasundaram, Sombor index of edge corona product of some classes of graphs, *South East Asian Journal of Mathematics and Mathematical Sciences* **18**(3) (2022) 307–316.

79. J. C. Hernández, J. M. Rodríguez, O. Rosario, J. M. Sigarreta, Extremal problems on the general Somborq index of a graph, *AIMS Mathematics* **7**(5) (2022) 8330–8343.

80. B. Horoldagva, C. Xu, On Sombor index of graphs, *MATCH Communications in Mathematical and in Computer Chemistry* **86** (2021) 793–713.

    B. Horoldagva, C. Xu, On Sombor index of graphs, *arXiv* (2023), DOI: arXiv: 2305.04554, 9 pp.

81. W. Hu, S. Gao, X. Yang, The Sombor index of unicyclic graphs, *Journal of Hubei University (Natural Science)* **44**(6) (2022) 641–645 (na kineskom).

82. X. Hu, L. Zhong, On the general Sombor index of connected unicyclic graphs with given diameter, *arXiv* (2022), DOI: arXiv: 2208.00418, 11 pp.

83. Y. Huang, H. Liu, Bounds of modified Sombor index, spectral radius and energy, *AIMS Mathematics* **6**(10) (2021) 11263–11274.

84. Y. Hunag, H. Liu, On the modified Sombor indices of some aromatic compounds, *Journal of South China Normal University (Natural Science Edition)* **53**(4) (2021) 91–99 (na kineskom).

85. M. Imran, B. A. Rather, Sombor spectra of chain graphs, *Heliyon* **9** (2023) #e18135, 11 pp.

86. S. Kosari, N. Dehgardi, A. Khan, Lower bound on the KG-Sombor index, *Communications in Combinatorics and Optimization* **8** (2023) 751–757.

87. Ž. Kovijanić Vukićević, On the Sombor index of chemical trees, *Mathematica Montisnigri* **50** (2021) 5–14.

88. V. R. Kulli, Sombor index of certain graph operators, *International Journal of Engineering Sciences & Research Technology* **10**(1) (2021) 127–134.

89. V. R. Kulli, Different versions of Sombor index of some chemical structures, *International Journal of Engineering Sciences & Research Technology* **10**(7) (2021) 23–31.

90. V. R. Kulli, Multiplicative Sombor indices of certain nanotubes, *International Journal of Mathematical Archive* **12**(3) (2021) 1–5.

91. V. R. Kulli, Computation of multiplicative Banhatti–Sombor indices of certain benzenoid systems, *International Journal of Mathematical Archive* **12**(4) (2021) 24–30.

92. V. R. Kulli, On second Banhatti–Sombor indices, *International Journal of Mathematical Archive* **12**(5) (2021) 11–16.

93. V. R. Kulli, δ-Sombor index and its exponential for certain nanotubes, *Annals of Pure and Applied Mathematics* **23**(1) (2021) 37–42.

94. V. R. Kulli, Sombor indices of two families of dendrimer nanostars, *Annals of Pure and Applied Mathematics* **24**(1) (2021) 21–26.

95. V. R. Kulli, On Banhatti–Sombor indices, *International Journal of Applied Chemistry* **8**(1) (2021) 21–25.

96. V. R. Kulli, New irregularity Sombor indices and new adriatic (a, b)-KA indices of certain chemical drugs, *International Journal of Mathematics Trends and Technology* **67**(9) (2021) 105–113.

97. V. R. Kulli, Neighborhood Sombor index of some nanostructues, *International Journal of Mathematics Trends and Technology* **67**(5) (2021) 101–108.

98. V. R. Kulli, Neighborhood Sombor indices, *International Journal of Mathematics Trends and Technology* **68**(6) (2022) 195–204.

99. V. R. Kulli, *ve*-Degree Sombor indices of certain networks, *International Journal of Mathematics Trends and Technology* **68**(9) (2022) 5–10.

100. V. R. Kulli, Multiplicative KG-Sombor indices of some networks, *International Journal of Mathematics Trends and Technology* **68**(10) (2022) 1–7.

101. V. R. Kulli, Revan Sombor indices and their exponentials for certain nanotubes, *International Journal of Engineering Sciences & Research Technology* **11**(5) (2022) 22–31.

102. V. R. Kulli, KG Sombor indices of certain chemical drugs, *International Journal of Engineering Sciences & Research Technology* **11**(6) (2022) 27–35.

103. V. R. Kulli, Status–Somber indices, *International Journal of Mathematics and Computer Research* **10** (2022) 2726–2730.

104. V. R. Kulli, HDR Somber indices and their exponentials of a graph, *International Journal of Mathematics and Computer Research* **10** (2022) 2817–2821.

105. V. R. Kulli, Temperature-Sombor and temperature-nirmala indices, *International Journal of Mathematics and Computer Research* **10** (2022) 2910–2915.

106. V. R. Kulli, Multiplicative Revan-Sombor indices of some benzenoid systems, *International Journal of Mathematics and Computer Research* **10** (2022) 2947–2952.

107. V. R. Kulli, E-Banhatti Sombor indices, *International Journal of Mathematics and Computer Research* **10** (2022) 2986–2994.

108. V. R. Kulli, Computation of reduced Kulli–Gutman Sombor index of certain networks, *Journal of Mathematics and Informatics* **23** (2022) 1–5.

109. V. R. Kulli, F-Sombor and modified F-Sombor indices of certain nanotubes, *Annals of Pure and Applied Mathematics* **27**(1) (2023) 13–17.

110. V. R. Kulli, Edge version of Sombor and nirmala indices of some nanotubes and nanotori, *International Journal of Mathematics and Computer Research* **11** (2023) 3305–3310.

111. V. R. Kulli, I. Gutman, Computation of Sombor indices of certain networks, *SSRG International Journal of Applied Chemistry* **8**(1) (2021) 1–5.

112. V. R. Kulli, I. Gutman, Revan Sombor index, *Journal of Mathematics and Informatics* **22** (2022) 23–27.

113. V. R. Kulli, I. Gutman, Sombor and KG-Sombor indices of benzenoid systems and phenylenes, *Annals of Pure and Applied Mathematics* **26**(2) (2022) 49–53.

114. V. R. Kulli, N. Harish, B. Chaluvaraju, Sombor leap indices of some chemical drugs, *Research Review International Journal of Multidisciplinary* **7**(10) (2022) 158–166.

115. V. R. Kulli, N. Harish, B. Chaluvaraju, I. Gutman, Mathematical properties of KG Sombor index, *Bulletin of International Mathematical Virtual Institute* **12** (2022) 379–386.

116. V. R. Kulli, J. A. Méndez–Bermúdez, J. M. Rodríguez, J. M. Sigarreta, Revan Sombor indices: Analytical and statistical study, *Mathematical Biosciences and Engineering* **20**(2) (2023) 1801–1819.

117. S. Li, Z. Wang, M. Zhang, On the extremal Sombor index of trees with a given diameter, *Applied Mathematics and Computation* **416** (2022) #126731, 15 pp.

118. Y. Li, H. Liu, R. Zhang, Quasi-tree graphs with the minimal Sombor indices, *Czechoslovak Mathematical Journal* **72** (2022) 1227–1238.

119. Y. Li, Q. Ren, J. Liang, C. Yang, Q. Tong, Sombor index of line and total graphs and pericondensed benzenoid hydrocarbons, *International Journal of Research* **10**(8) (2022) 99–111.

120. Z. Lin, T. Zhou, V. R. Kulli, L. Miao, On the first Banhatti–Sombor index, *Journal of International Mathematical Virtual Institute* **11** (2021) 53–68.

121. Z. Lin, T. Zhou, L. Miao, On the spectral radius, energy and Estrada index of the Sombor matrix of graphs, *Transactions on Combinatorics* **12** (2023) 191–205.

    Z. Lin, L. Miao, On the spectral radius, energy and Estrada index of the Sombor matrix of graphs, *arXiv* (2021), DOI: arXiv: 2102.03960, 18 pp.

122. H. Liu, Extremal cacti with respect to Sombor index, *Iranian Journal of Mathematical Chemistry* **12** (2021) 197–208.

123. H. Liu, Ordering chemical graphs by their Sombor indices, *arXiv* (2021), DOI: arXiv: 2103.05995, 14 pp.

124. H. Liu, Maximum Sombor index among cacti, *arXiv* (2021), DOI: arXiv: 2103.07924, 12 pp.

125. H. Liu, Multiplicative Sombor index of graphs, *Discrete Mathematics Letters* **9** (2022) 80–85.

126. H. Liu, Extremal problems on Sombor indices of unicyclic graphs with a given diameter, *Computational and Applied Mathematics* **41**(4) (2022) #138, 11 pp.

127. H. Liu, Extremal (molecular) trees with respect to multiplicative Sombor indices, *Journal of Mathematical Research with Applications* **43**(2) (2023) 139–149.

128. H. Liu, Proof of an open problem on the Sombor index, *Journal of Applied Mathematics and Computing* **69** (2023) 2465–2471.

129. H. Liu, H. Chen, Q. Xiao, X. Fang, Z. Tang, More on Sombor indices of chemical graphs and their applications to the boiling point of benzenoid hydrocarbons, *International Journal of Quantum Chemistry* **121**(17) (2021) #e26689, 9 pp.

130. H. Liu, I. Gutman, L. You, Y. Huang, Sombor index: Review of extremal results and bounds, *Journal of Mathematical Chemistry* **66** (2022) 771–798.

131. H. Liu, L. You, The spectral properties of p-Sombor (Laplacian) matrix of graphs, *Journal of Mathematical Research with Applications* **43**(3) (2023) 277–288.

132. H. Liu, L. You, Y. Huang, Ordering chemical graphs by Sombor indices and its applications, *MATCH Communications in Mathematical and in Computer Chemistry* **87** (2022) 5–22.

133. H. Liu, L. You, Y. Huang, Extremal Sombor indices of tetracyclic (chemical) graphs, *MATCH Communications in Mathematical and in Computer Chemistry* **88** (2022) 573–581.

134. H. Liu, L. You, Y. Huang, Sombor index of c-cyclic chemical graphs, *MATCH Communications in Mathematical and in Computer Chemistry* **90** (2023) 495–504.

135. H. Liu, L. You, Y. Huang, X. Fang, Spectral properties of p-Sombor matrices and beyond, *MATCH Commuications in Mathematical and in Computer Chemistry* **87** (2022) 59–87.

136. H. Liu, L. You, Y. Huang, Z. Tang, On extremal Sombor indices of chemical graphs, and beyond, *MATCH Communications in Mathematical and in Computer Chemistry* **89** (2023) 415–436.

137. H. Liu, L. You, Z. Tang, J. B. Liu, On the reduced Sombor index and its applications, *MATCH Communications in Mathematics and in Computer Chemistry* **86** (2021) 729–753.

138. J. B. Liu, J. J. Gu, K. Wang, The expected values for the Gutman index, Schultz index, and some Sombor indices of a random cyclooctane chain, *International Journal of Quantum Chemistry* **123**(3) (2023) #e27022, 21 pp.

139. J. B. Liu, Y. Q. Zheng, X. B. Peng, The statistical analysis for Sombor indices in a random polygonal chain networks, *Discrete Applied Mathematics* **338** (2023) 218–233.

140. H. R. Manjuntha, V. R. Kulli, N. D. Soner, The HDR-Sombor index, *International Journal of Mathematics Trends and Technology* **68**(4) (2022) 1–6.

141. M. Matejić, Ş. B. B. Altındağ, E. Milovanović, I. Milovanović, Remark on the reverse Sombor (δ-Sombor) indices, *Bulletin of International Mathematical Virtual Institute* **12** (2022) 519–527.

142. Y. Mei, H. Fu, H. Miao, Y. Gao, Extreme Sombor spectral radius of unicyclic graphs, *MATCH Communications in Mathematical and in Computer Chemistry* **90** (2023) 513–532.

143. J. A. Méndez–Bermúdez, R. Aguilar–Sánchez, E. D. Molina, J. M. Rodríguez, Mean Sombor index, *Discrete Mathematics Letters* **9** (2022) 18–25.

144. I. Milovanović, E. Milovanović, A. Ali, M. Matejić, Some results on the Sombor indices of graphs, *Contributions to Mathematics* **3** (2021) 59–67.

145. I. Milovanović, E. Milovanović, M. Matejić, On some mathematical properties of Sombor indices, *Bulletin of International Mathematical Virtual Institute* **11** (2021) 341–353.

146. M. Mohammadi, H. Barzegar, A. R. Ashrafi, Comparisons of the Sombor index of alkane, alkyl, and annulene series with their molecular mass, *Hindawi Journal of Chemistry* **2022** (2022) #8348525, 7 pp.

147. F. Movahedi, Extremal trees for maximum Sombor index with given degree sequence, *arXiv* (2022), DOI: arXiv: 2211.06396, 7 pp.

148. F. Movahedi, Extremal trees for Sombor index with given degree sequence, *Iranian Journal of Mathematical Chemistry* **13** (2022) 281–290.

149. F. Movahedi, M. H. Akhbari, Entire Sombor index of graphs, *Iranian Journal of Mathematical Chemistry* **14** (2023) 33–45.

150. K. Naz, S. Ahmad, E. Bashier, On computing techniques for Sombor index of some graphs, *Mathematical Problems in Engineering* **2022** (2022) #1329653, 13 pp.

151. W. Ning, Y. Song, K. Wang, More on Sombor index of graphs, *Mathematics* **10**(3) (2022) #301, 12 pp.

    W. Ning, Y. Song, K. Wang, More on Sombor index of graphs, u knjizi: J. Žerovnik, D. Rupnik Poklukar (Eds.), *Advances in Discrete Applied Mathematics and Graph Theory*, MDPI, Basel, 2022, pp. 107–118.

152. M. R. Oboudi, Non-semiregular bipartite graphs with integer Sombor index, *Discrete Mathematics Letters* **8** (2022) 38–40.

153. M. R. Oboudi, Mean value of the Sombor index of graphs, *MATCH Communications in Mathematical and in Computer Chemistry* **89** (2023) 733–740.

154. M. R. Oboudi, On graphs with integer Sombor index, *Journal of Applied Mathematics and Computing* **69** (2023) 941–952.

155. M. S. Oz, Coefficients of Randić and Sombor characteristic polynomials of some graph types, *Communications Faculty of Sciences University of Ankara Series A1 Mathematics and Statistics* **71** (2022) 778–790.

156. C. Phanjoubam, S. M. Mawiong, On Sombor index and some topological indices, *Iranian Journal of Mathematical Chemistry* **12** (2021) 209–215.

157. C. Phanjoubam, S. M. Mawiong, A. M. Buhphang, On general Sombor index of graphs, *Asian-European Journal of Mathematics* **16**(3) (2023) #2350052.

158. C. Phanjoubam, S. M. Mawiong, A. M. Buhphang, On Sombor coindex of graphs, *Communications in Combinatorics and Optimization* **8** (2023) 513–529.

159. J. Rada, J. M. Rodríguez, J. M. Sigarreta, General properties on Sombor indices, *Discrete Applied Mathematics* **299** (2021) 87–97.

160. J. Rada, J. M. Rodríguez, J. M. Sigarreta, On integral Sombor indices, *Applied Mathematics and Computation* **452** (2023) #128036, 10 pp.

161. V. S. Raikar , S. S. Shirkol, V. Mathad, On Sombor index and domination number of graphs, *European Chemical Bulletin* **12**(7) (2023) 1432–1453.

162. H. S. Ramane, I. Gutman, K. Bhajantri, D. V. Kitturmath, Sombor index of some graph transformations, *Communications in Combinatorics and Optimization* **8** (2023) 193–205.

163. H. S. Ramane, D. V. Kitturmath, On the conjecture of Sombor energy of a graph, *Examples and Counterexamples* **3** (2023) #100115, 3 pp.

164. H. S. Ramane, D. V. Kitturmath, K. Bhajantri, Sombor polynomial and Nirmala polynomial of some graph transformations of regular graphs, *Journal of Advanced Mathematical Studies* **15** (2022) 310–320.

165. B. A. Rather, M. Imran, Sharp bounds on the Sombor energy of graphs, *MATCH Communications in Mathematical and in Computer Chemistry* **88** (2022) 605–624.

166. B. A. Rather, M. Imran, A note on energy and Sombor energy of graphs, *MATCH Communications in Mathematical and in Computer Chemistry* **89** (2023) 467–477.

167. B. A. Rather, M. Imran, S. Pirzada, Sombor index and eigenvalues of comaximal graphs of commutative rings, *Journal of Algebra and Its Applications*, DOI: https://doi.org/10.1142/S0219498824501159, 19 pp.

168. N. K. Raut, G. K. Sanap, On Sombor indices of $VC_5C_7[p,q]$ nanotubes by M-polynomial and exponential, *Journal of Research in Applied Mathematics* **8**(6) (2022) 64–70.

169. I. Redžepović, Chemical applicability of Sombor indices, *Journal of the Serbian Chemical Society* **86** (2021) 445–457.

170. I. Redžepović, I. Gutman, Comparing energy and Sombor energy – an empirical study, *MATCH Communications in Mathematical and in Computer Chemistry* **88** (2022) 133–140.

171. M. Redžić, Minimizing the Sombor index among trees with fixed degree sequence, *arXiv* (2022), DOI: arXiv: 2212.03959, 11 pp.

172. E. A. Refaee, A. Ahmad, M. Azeem, Sombor indices of γ-sheet of boron clusters, *Molecular Physics* **121**(15) (2023) e221493, 8 pp.

173. A. ur Rehman Virk, Analysis of bridge graph through K-Banhatti Sombor invariants, *Scientific Inquiry and Review* **6** (2022) 2521–2435.

174. S. Reja, A. Nayeem, On Sombor index and graph energy, *MATCH Communications in Mathematical and in Computer Chemistry* **89** (2023) 451–465.

175. T. Réti, T. Došlić, A. Ali, On the Sombor index of graphs, *Contributions to Mathematics* **3** (2021) 11–18.

176. M. S. Sardar, M. N. Husin, G. Mohyuddin, F. Ashraf, M. Cancan, M. Alaeiyan, M. R. Farahani, Computation of Sombor indices for some classes of silicon carbides, *Mathematical Statistician and Engineering Applications* **71**(3s3) (2022) 81–97.

177. I. Sarkar, N. Manjunath, B. Chaluvaraju, V. Lokesha, Bounds of Sombor index for F-sum operation, *Palestine Journal of Mathematics* **12** (2023) 504–516.

178. I. Sarkar, N. Manjunath, I. Gutman, Bounds on Sombor index for corona products on R-graphs, *Communications in Combinatorics and Optimization*, DOI: 10.22049/CCO.2022.27904.1391.

179. T. A. Selenge, B. Horoldagva, Extremal Kragujevac trees with respect to Sombor indices, *Communications in Combinatorics and Optimization*, DOI: 10.22049/CCO.2023.28058.1430

180. B. Senthilkumar, Y. B. Venkatakrishnan, S. Balachandran, A. Ali, T. A. Alraqad, A. E. Hamza, On the maximum Sombor index of unicyclic graphs with a fixed girth, *Hindawi Journal of Mathematics* **2022** (2022) #8202681, 8 pp.

181. M. Sepehr, N. Jafari Rad, On graphs with integer Sombor indices, *Communications in Combinatorics and Optimization*, DOI: 10.22049/cco.2023.28334.1510, 13 pp.

182. Y. Shang, Sombor index and its applications in network science, *The 6th Combinatoris and Graph Theory Conference*, May 29-31, 2021, Guilin, China.

183. Y. Shang, Sombor index and degree-related properties of simplicial networks, *Applied Mathematics and Computation* **419** (2022) #126881, 11 pp.

184. A. A. Shashidhara, H. Ahmed, D. S. Nandappa, M. Cancan, Domination version: Sombor index of graphs and its significance in predicting physicochemical properties of butane derivatives, *Eurasian Chemical Communications* **5** (2023) 91–102.

185. I. R. Shivakumar, R. K. Mysore, R. Rao, M. D. Lal, M. C. Gudgeri, N. Kembhavimath, Computation of Sombor index of graphene, *AIP (American Institute of Physics) Conference Proceedings* **2649** (2023) #020002, 6 pp.

186. H. Shooshtari, S. M. Sheikholeslami, J. Amjadi, Modified Sombor index of unicyclic graphs with a given diameter, *Asian-European Journal of Mathematics* **16**(6) (2023) #2350098.

187. R. Singh, S. C. Patekar, On the Sombor index and Sombor energy of m-splitting graph and m-shadow graph of regular graphs, *arXiv* (2022), DOI: arXiv: 2205.09480, 10 pp.

188. X. Sun, J. Du, On Sombor index of trees with fixed domination number, *Applied Mathematics and Computation* **421** (2022) #126946, 8 pp.

189. X. Sun, J. Du, On Sombor index of bicyclic graphs with given matching number, *Journal of Applied and Pure Mathematics* **4**(5) (2022) 249–262.

190. S. Sunantha, S. Sasikala, Multiplicative version of Sombor indices of hyaluronic acid–curcumin, methotrexate and paclitaxel conjugates, *International Journal of Mathematics and Its Applications* **10**(3) (2022) 45–51.

191. N. N. Swamy, T. Manohar, B. Sooryanarayana, I. Gutman, Reverse Sombor index, *Bulletin of International Mathematical Virtual Institute* **12** (2022) 267–272.

192. H. Tabassum, P. Kaemawichanurat, Adeela, N. Wiroonsri, Relationship between ordinary, Laplacian, Randić, incidence, and Sombor energies of trees, *MATCH Communications in Mathematical and in Computer Chemistry* **90** (2023) 743–763.

193. Z. Tang, H. Deng, Molecular trees with extremal values of the second Sombor indices, *arXiv* (2022), DOI: arXiv: 2208.09154, 9 pp.

194. Z. Tang, Q. Li, H. Deng, Trees with extremal values of the Sombor-index-like graph invariants, *MATCH Communications in Mathematical and in Computer Chemistry* **90** (2023) 203–222.

195. A. Turhun, M. Metsidik, Sombor index for some graphs, *Advances in Applied Mathematics* **12**(3) (2023) 1281–1292 (na kineskom).

196. A. Ülker, A. Gürsoy, N. K. Gürsoy, The energy and Sombor index of graphs, *MATCH Communications in Mathematical and in Computer Chemistry* **87** (2022) 51–58.

197. A. Ülker, A. Gürsoy, N. K. Gürsoy, I. Gutman, Relating graph energy and Sombor index, *Discrete Mathematics Letters* **8** (2022) 6–9.

198. V. S. Umadi, A. M. Sangogi, Calculating Sombor index of certain networks, *International Journal of Mathematics Trends and Technology* **68**(7) (2022) 58–65.

199. S. O. Ünal, An application of Sombor index over a special class graph of semigroup graph, *Hindawi Journal of Mathematics* **2021** (2021) #3273117, 6 pp.

200. S. O. Ünal, Nirmala and Banhatti-Sombor index over tensor and Cartesian product of special class of semigroup graphs, *Hindawi Journal of Mathematics* **2022** (2022) #5770509, 15 pp.

201. S. O. Ünal, Sombor index over the tensor and Cartesian product of monogenic semigroup graphs, *Symmetry* **14**(5) (2022) #1071, 14 pp.

202. S. O. Ünal, Banhatti–Sombor index over a graph of a special class of semigroup, *Konuralp Journal of Mathematics* **10**(1) (2022) 40–43.

203. S. O. Ünal, On Sombor and Sombor-type indices, in: A. Alazemi, G. Çuvalacioğlu, F. Tuğrul (Eds.), *Book of Abstracts of the 8th International Conference on Intuitionstic Fuzzy Sets and Contemporary Mathematics*, June 16-19, 2022, Mersin, Turkey, pp. 63–64.

204. D. Vyshnavi, B. Chaluvaraju, Block Sombor index and its properties, u knjizi: S. Yadav, F. Singh, J. Kumar (Eds.), *Book of Abstracts of the 2nd International Conference on Applied Mathematics and Computational Sciences*, AIJR Publisher, Balrampur, 2022, p. 119.

205. F. Wang, B. Wu, The proof of a conjecture on the reduced Sombor index, *MATCH Communications in Mathematical and in Computer Chemistry* **88** (2022) 583–591.

206. F. Wang, B. Wu, The reduced Sombor index and the exponential reduced Sombor index of a molecular tree, *Journal of Mathematical Analysis and Applications* **515**(2) (2022) #126442.

207. F. Wang, B. Wu, The k-Sombor index of trees, *Asia-Pacific Journal of Operational Research* **40** (2023) #235002, 34 pp.

208. Z. Wang, Y. Mao, I. Gutman, J. Wu, Q. Ma, Spectral radius and energy of Sombor matrix of graphs, *Filomat* **35** (2021) 5093–5100.

209. Z. Wang, Y. Mao, Y. Li, B. Furtula, On relations between Sombor and other degree–based indices, *Journal of Applied Mathematics and Computing* **68** (2022) 1–17.

210. P. Wei, M. Liu, Note on Sombor index of connected graphs with given degree sequence, *Discrete Applied Mathematics* **330** (2023) 51–55.

211. F. Wu, X. An, B. Wu, Sombor indices of cacti, *AIMS Mathematics* **8**(1) (2023) 1550–1565.

212. C. Yang, M. Li, K. C. Das, Y. Mao, Extreme graphs on the Sombor indices, *AIMS Mathematics* **7**(10) (2022) 19126–19146.

213. J. Yang, H. Deng, Maximum and minimum Sombor index among k-apex unicyclic graphs and k-apex trees, *Asian-European Journal of Mathematics* **16**(2) (2023) #2350012.

214. J. Ye, J. Qian, Extremal polygonal cacti for general Sombor index, *arXiv* (2021), DOI: arXiv: 2108.12775, 14 pp.

215. M. Zhang, B. Zhao, Extremal values of the Sombor index in tricyclic graphs, *MATCH Communications in Mathematical and in Computer Chemistry* **89** (2023) 741–758.

216. R. Zhang, H. Liu, Y. Li, On the maximal Sombor index of quasi-tree graphs, *arXiv* (2023), DOI: arXiv: 2307.01030, 16 pp.

217. W. Zhang, J. Meng, N. Wang, Extremal graphs for Sombor index with given parameters, *Axioms* **12** (2023) #203, 13 pp.

218. W. Zhang, L. You, H. Liu, Y. Huang, The expected values and variances for Sombor indices in a general random chain, *Applied Mathematics and Computation* **411** (2021) #126521, 17 pp.

219. R. Zheng, T. Ma, X. Jin, Extremal trees, unicyclic and bicyclic graphs with respect to p-Sombor spectral radii, *arXiv* (2023), DOI: arXiv: 2304.02256, 29 pp.

220. T. Zhou, Z. Lin, L. Miao, The Sombor index of trees and unicyclic graphs with given matching number, *arXiv* (2021), DOI: arXiv: 2103.04645, 10 pp.

T. Zhou, Z. Lin, L. Miao, The extremal Sombor index of trees and unicyclic graphs with given matching number, *Journal of Discrete Mathematical Sciences and Cryptography*, DOI: https://doi.org/10.1080/09720529.2021.2015090.

221. T. Zhou, Z. Lin, L. Miao, The Sombor index of trees and unicyclic graphs with given maximum degree, *Discrete Mathematics Letters* **7** (2021) 24–29.

222. X. Zuo, B. A. Rather, M. Imran, A. Ali, On some topological indices defined via the modified Sombor matrix, *Molecules* **27** (2022) #6776, 20 pp.

Ovom spisku treba dodati i radove koji se isključivo bave somborskim indeksom, što se iz naslova tih radova ne vidi:

1. S. Amin, M. A. Rehman, A. Naseem, I. Khan, N. Alshammari, N. N. Hamadneh, Analysis of complex networks via some novel topological indices, *Mathematical Problems in Engineering* **2022** (2022) #9040532, 13 pp.

2. S. Amin, M. A. Rehman, A. Naseem, J. Younis, S. S. Asghar, Analysis of bismuth (III) iodide and dendrimers in drug applications, *Hindawi Journal of Chemistry* **2022** (2022) #3163294, 14 pp.

3. K. Hamid, M. W. Iqbal, Q. Abbas, M. Arif, A. Brezulianu, O. Geman, Discovering irregularities from computer networks by topological mapping, *Applied Sciences* **12** (2022) #12051, 16 pp.

4. K. Hamid, M. W. Iqbal, M. U. Ashraf, A. M. Alghamdi, A. A. Bahaddad, K. A. Almarhabi, Optimized evaluation of mobile base station by modern topological invariants, *Computers, Materials & Continua* **74**(1) (2023) 363–378.

5. K. Hamid, M. W. Iqbal, S. U. Bhatti, N. Hussain, M. Fatima, S. Ramzan, Irregularity investigation of certain computer networks empowered security, *Journal of Jilin University (Engineering and Technology Edition)* **41**(12) (2022) 75–93.

6. M. Imran R. Luo, M. K. Jamil, M. Azeem, K. M. Fahd, Geometric perspective to degree-based topological indices of supramolecular chain, *Results in Engineering* **16** (2022) #100716, 7 pp.

7. A. Jahanbani, J. Amjadi, H. Shooshtari, R. Hasni, On degree based topological properties of the molecular structure of polycyclic aromatic hydrocarbons, *Polycyclic Aromatic Compounds*, DOI: https://doi.org/10.1080/10406638.2022.2159451, 9 pp.

8. H. Liu, Mathematical and chemical properties of geometry-based invariants and its applications, *Journal of Molecular Structure* **1291** (2023) #136060.

9. F. Movahedi, M. H. Akhbari, Degree-based topological indices of the molecular structure of hyaluronic acid-methotrexate conjugates in cancer treatment, *International Journal of Quantum Chemistry* **123**(7) (2023) #e27106, 20 pp.

10. Z. Raza, K. Naz, S. Ahmad, Expected values of molecular descriptors in random polyphenyl chains, *Emerging Science Journal* **6**(1) (2022) 151–165.