

Addendum to Professor Balaban's List of Publications

B. Book Chapters

60. A. T. Balaban, "A comparison between various topological indices, particularly index J and Wiener's index W". In "Topology in Chemistry: Discrete Mathematics of Molecules", D. H. Rouvray and R. B. King (Eds.), Horwood Publishing Ltd., Chichester, 2002, p. 89-112.
61. S. C. Basak, D. Mills, B. D. Gute, G. D. Grunwald, and A.T. Balaban, "Applications of topological indices in predicting property/bioactivity/toxicity of chemicals". In "Topology in Chemistry: Discrete Mathematics of Molecules", D. H. Rouvray and R. B. King (Eds.), Horwood Publishing Ltd., Chichester, 2002, p. 113-184.
62. T.S. Balaban and A.T. Balaban, "Prylium Salts". In "Science of Synthesis; Houben-Weyl Methods of Molecular Transformations", Georg Thieme Verlag, Stuttgart, 2003, p. 11-200.
63. A.T. Balaban, "2,6-Di-tert-butyl-4-methylpyridine (DTBMP)", In: "Encyclopedia of Reagents for Organic Synthesis", L.A. Paquette (Ed.), Wiley, New York, 2004.
64. M. Randić, X. Guo, D. Plavšić, and A. T. Balaban, "On the Complexity of Fullerenes and Nanotubes", In: "Complexity in Chemistry, Biology, and Ecology", D. Bonchev and D. Rouvray ", (Eds), Springer, New York, 2005, p. 1-48.
65. A.T. Balaban, Theoretical investigations of single-wall nanocones. In "Nanostructures. Novel Architecture", M. V. Diudea (Ed.), Nova Publishers, New York, 2005, p.113-142.

C. Articles in peer-reviewed scientific periodicals

568. A.T. Balaban and M. Randić, *Scientometrics*, **2000**, *49*, 57-521: Proposal for using an untapped source of citations characterizing scientific areas.
569. O. Ivanciuc, T. Ivanciuc, D. Cabrol-Bass, and A.T. Balaban, *J. Chem. Inf. Comput. Sci.*, **2000**, *40*, 732-743: Comparison of weighting schemes for molecular graph descriptors. Application in quantitative structure-retention relationship models for alkylphenols in gas-liquid chromatography.
570. O. Ivanciuc, T. Ivanciuc, D. Cabrol-Bass, and A.T. Balaban, *Math. Chem. (MATCH)*, **2000**, *42*, 155-180: Investigation of alkane branching (and resulting partial ordering) by topological indices.
571. O. Ivanciuc, T. Ivanciuc, and A.T. Balaban, *Acta Chem. Hung., Models Chem.*, **2000**, *137*, 57-82: The complementary distance matrix, a new molecular graph descriptor.
572. A.T. Balaban, D. Mills, O. Ivanciuc, and S.C. Basak, *Croat. Chem. Acta*, **2000**, *73*, 923-941: Reverse Wiener indices.
573. S.C. Basak, D. Mills, B.D. Gute, G.D. Grunwald, and A.T. Balaban, *J. Chem. Inf. Comput. Sci.*, **2000**, *40*, 891-898: Topological indices: their nature and mutual relatedness.
574. A.T. Balaban, L. Pogliani, M. Randić, and N. Trinajstić, *Kem. Ind.*, **2000**, *49*, 69-72: Discrete versus continuous entities - keynote in the discussion about zero.
575. A.L. Marton, G.I. Marton, C. Draghici, and A.T. Balaban, *Rev. Roum. Chim.*, **2000**, *45*, 609-616: Pseudobases of various 3-benzyl-2,4,6-triphenylpyrylium salts.
576. D. Popovici, O. Maior, A. Racoveanu-Schiketanz, and A.T. Balaban, *Analele Univ. București (Chimie)*, **2000**, *9*, 69-74: Aminoketone, oxazole and thiazole synthesis. Part 14. Acylaminoacylation with the azlactone of *para*-tert-butylhippuric acid and derived 2,5-diaryloxazoles.1.
577. D. Popovici, O. Maior, A. Racoveanu-Schiketanz, and A.T. Balaban, *Analele Univ. București (Chimie)*, **2000**, *9*, 75-81: Aminoketone, oxazole and thiazole synthesis. Part 15. Acylaminoacylation with the azlactone of *para*-benzoylhippuric acid and derived 2,5-diaryloxazoles.2.
578. D. Popovici, M. Moraru, O. Maior, and A.T. Balaban, *Revista de Chimie (București)*, **2000**, *51*, 995-997: Syntheses of 3,5-dimethylhippuric acid, an intermediate for obtaining 2,5-diaryl-substituted oxazoles (in Roumanian).

579. O. Ivanciuc, T. Ivanciuc, D. Cabrol-Bass, and A.T. Balaban, *J. Chem. Inf. Comput. Sci.*, **2000**, *40*, 631-643: Evaluation in quantitative structure-property relationship models of structural descriptors derived from information-theory operators.
580. I.C. Covaci, T. Constantinescu, M.T. Căproiu, C. Luca, and A.T. Balaban, *Eur. J. Org. Chem.* **2000**, 3569-3473: Solid supramolecular complexes of potassium salts of N-methoxynitroaniline derivatives and methoxyamino-3,5-dinitropyridine with 18-crown-6 ether.
581. P. Ionita, M. T. Căproiu, and A.T. Balaban, *Rev. Roum. Chim.*, **2000**, *45*, 935-941: New sulfonyl derivatives of 2,2-diphenyl-1-picrylhydrazyl and their supramolecular complexes with crown ethers of kryptands.
582. E.N. Hristea, M. Hillebrand, A.C. Răduti, H. Căldăraru, M.T. Căproiu, P. Ionita, T. Constantinescu, and A.T. Balaban, *Rev. Roum. Chim.*, **2000**, *45*, 1089-1096: Reaction between 2,2-diphenyl-1-picrylhydrazyl or -hydrazine and sodium borohydride in the presence of 18-crown-6 ether.
583. A.T. Balaban, *Indian J. Math. Teaching*, **2000**, *26*, 1-9: The parallel and antiparallel lives of Newton and Leibniz.
584. A.T. Balaban and D. Babic, *Math. Reports (Bucharest)*, **2000**, *2*, 269-274: Details about a (3,11)-cage on 112 vertices.
585. O. Ivanciuc, T. Ivanciuc, D.J. Klein, W.A. Seitz, and A.T. Balaban, *SAR QSAR Environ. Res.*, **2001**, *11*, 419-452: Quantitative structure-retention relationships for gas chromatographic retention indices of alkylbenzenes with molecular graph descriptors.
586. T.S. Balaban, A.T. Balaban, and D. Bonchev, *J. Mol. Struct. (Theochem)*, **2001**, *535*, 81-92: A topological approach to predicting properties of infinite polymers. Part VI. Rational formulas for the normalized Wiener index and a comparison with index J.
587. O. Ivanciuc, T. Ivanciuc, D.J. Klein, W. Seitz, and A.T. Balaban, *J. Chem. Inf. Comput. Sci.*, **2001**, *41*, 536-549: Wiener index extension by counting even/odd graph distances.
588. S.C. Basak, D. Mills, A.T. Balaban, and B.D. Gute, *J. Chem. Inf. Comput. Sci.*, **2001**, *41*, 671-678: Prediction of mutagenicity of aromatic and heteroaromatic amines from structure: a hierarchical QSAR approach.
589. M. Randic, A.T. Balaban and S.C. Basak, *J. Chem. Inf. Comput. Sci.*, **2001**, *41*, 593-601: On structural interpretation of several distance related topological indices.
590. C. Uncața, A. Tudose, M. T. Căproiu, C. Stavarache, and A.T. Balaban, *J. Chem. Res. (S)*, **2001**, 170-171; *J. Chem. Res. (M)*, **2001**, 523-535: Reaction of pyrylium salts with nucleophiles. Part 26. The reaction with the cyanide anion revisited.
591. A.T. Balaban, *Exp. Opin. Ther. Patents*, **2001**, *11*, 355-359: Novel antiviral agents: phosphoramidates or mono/di/tri-phosphate esters of carbocyclic adenosine analogues.
592. A.T. Balaban and C. Rücker, *J. Chem. Inf. Comput. Sci.*, **2001**, *41*, 1145-1149: Using prochirons for three-dimensional coding of certain chemical structures.
593. M.A. Ilies and A.T. Balaban, *Exp. Opin. Ther. Patents*, **2001**, *11*, 1729-1752: Recent developments in cationic lipid-mediated gene delivery.
594. I.C. Covaci, T. Constantinescu, M. T. Căproiu, H. Căldăraru, P. Ionita and A. T. Balaban, *Polish J. Chem.*, **2001**, *75*, 1427-1440: New congeners of 1-picryl-2-phenyl-2-(para-picramidophenyl)-diazonium betaine whose picramido groups are replaced by 4-cyano-2,6-dinitrophenyl analogs.
595. V. Dragutan, I. Dragutan, and A.T. Balaban, *Platinum Metals Rev.*, **2001**, *45*, 155-163: Progress in the design and synthesis of novel single-site ruthenium metathesis catalysts.
596. T.S. Balaban, A.T. Balaban, S. Foro, and H.J. Lindner, *ARKIVOC*, **2001**, (i),1-6: 1,2,6-Trimethyl-3,5-nonamethylenepyridinium perchlorate. Crystal structure and molecular mechanics calculations for *ansa*-[9]-*meta*-cyclophanes.
597. M.D. Banciu, E.E. Castellano, J. Ellena, I. Haiduc, C. Drăghici, and A.T. Balaban, *New J. Chem.* **2001**, *25*, 1472-1474: Serendipitous, one-pot formation of 2,3,7-triphenyl-cyclopenta[c]pyran from 1,2-diphenylethanedione ("benzil") and cyclopentadiene.
598. I. Schiketanz, C. Drăghici, I. Șaramet and A.T. Balaban, *Rev. Roum. Chim.*, **2002**, *47* 235-238: Aminoketone, oxazole and thiazole synthesis. Part 16. Novel 5-aryl-2-(para-benzenesulfonylphenyl)-oxazoles.
599. A.T. Balaban, D. Mills, and S.C. Basak, *MATCH*, **2002**, *45*, 5-26: Alkane ordering as a criterion for similarity between topological indices: index J as a "sharpened Wiener index".

600. I Schiketanz, C. Drăghici, I. Şaramet, and A.T. Balaban, *ARKIVOC*, **2002**, (ii), 64-72: Aminoketone, oxazole and thiazole synthesis. Part 15. 2-[4-(4-Halobenzenesulfonyl)-phenyl]-5-aryl-oxazoles.
601. E.N. Hristea, M. Hillebrand, M.T. Căproiu, H. Căldăraru, T. Constantinescu, and A.T. Balaban, *ARKIVOC*, **2002**, (ii), 123-132: Scavenging the hydroxy radical by 2,2-diphenyl-1-picrylhydrazyl.
602. A. T. Balaban and D.J. Klein, *Scientometrics*, **2002**, *55*, 59-70: Co-authorship, Erdős numbers, and resistance distances in graphs.
603. O. Ivanciuc, T. Ivanciuc, and A.T. Balaban, *Internet Electron J. Mol. Des.*, **2002**, *1*, 252-268: Quantitative structure-property relationships for the normal boiling temperatures of acyclic carbonyl compounds.
604. O. Ivanciuc, T. Ivanciuc, D. Cabrol-Bass, and A.T. Balaban, *Internet Electron J. Mol. Des.*, **2002**, *1*, 319-331: Optimum structural descriptors from the Ivanciuc-Balaban operator.
605. O. Ivanciuc, T. Ivanciuc, and A.T. Balaban, *Internet Electron J. Mol. Des.*, **2002**, *1*, 467-487: Quantitative structure-property relationship evaluation of structural descriptors derived from the distance and reverse Wiener matrices.
606. M.A. Ilies, W.A. Seitz and A.T. Balaban, *Curr. Pharm. Design*, **2002**, *8*, 2441-2473: Cationic lipids in gene delivery: principles, vector design, and therapeutical applications.
607. O. Ivanciuc, T. Ivanciuc, and A.T. Balaban, *Internet Electron J. Mol. Des.*, **2002**, *1*, 559-571: QSAR models for the dermal penetration of polycyclic aromatic hydrocarbons.
608. A.L. Marton, G.I. Marton, C. Drăghici and A.T. Balaban, *Proc. Roumanian Acad. Series B: Chem., Life Sci., Geosci.*, **2002**, *4*, 7-10: New pyridinium salts with potential biochemical activity. Synthesis and NMR study.
609. R.M. Nemba and A.T. Balaban, *MATCH*, **2002**, *46*, 235-250: Enumeration of chiral and achiral isomers of an n-membered ring with n homomorphic alkyl groups.
610. M.D. Banciu, A.T. Balaban, C. Drăghici, I.Haiduc, and O.Ivanciuc, *Rev. Roum. Chim.*, **2002**, *47*, 705-713: Unexpected formation of 2,3,7-triphenylcyclopenta-[c]pyran from the reaction of 1,2-diphenylethanedione (benzil) with cyclopentadiene.
611. A.T. Balaban, *Polycyclic Aromatic Comp.*, **2003**, *23*, 277-296: Theoretical examination of new forms of carbon formed by intra- or intermolecular dehydrogenation of polycyclic aromatic hydrocarbons.
612. M. Randic and A.T. Balaban, *J. Chem. Inf. Comput. Sci.*, **2003**, *43*, 532-539: On a four-dimensional representation of DNA primary sequences.
613. I.C. Covaci, P. Ionita, M.T. Căproiu, R. Socoteanu, T. Constantinescu, and A.T. Balaban, *Central Eur. Chem. J.*, **2003**, *1*, 57-68: 1,3-bis-(2,4,6-Trinitrophenylaminoxy)propane and its 4-cyano-2,6-dinitrophenyl congener: synthesis and properties.
614. A.T. Balaban, A. Tudose, and M.T. Căproiu, *Tetrahedron*, **2003**, *59*, 3291-3295: Synthesis of 2,4-dimethyl-6-oxo-2,4-heptadienoic acid derivatives from 2,4,6-trimethylpyrylium salts.
615. A.T. Balaban and W. Seitz, *J. Chem. Educ.*, **2003**, *80*, 662-664: Relevance of chemical kinetics for medicine: The case of nitric oxide.
616. M.A. Ilies, W.A. Seitz, M.T. Caproiu, M. Wentz, R.E. Garfield, and A.T. Balaban, *Eur. J. Org. Chem.*, **2003**, 2645-2655: Pyridinium-based cationic lipids as gene transfer agents.
617. A.T. Balaban, D. Plavsic and M. Randic, *Chem. Phys. Lett.*, **2003**, *379*, 147-154: DNA invariants based on nonoverlapping triplets of nucleotide bases.
618. N.H. March, A.T. Balaban, F.E. Leys, D.J. Klein, and W. A. Seitz, *Phys. Chem. Liquids*, **2003**, *41*, 303-308: Regularities in melting points of lithium halides: Is LiH anomalous?
619. A.T. Balaban, *Amer. Romanian Acad. J.*, **2003**, *28*, 141-144: Evolution of biomolecules.
620. A.T. Balaban and S.C. Basak, *Amer. Romanian Acad. J.*, **2003**, *28*, 25-35: How and why did our view of the world change during the last six hundred years?
621. A.T. Balaban, *Amer. Romanian Acad. J.*, **2003**, *28*, 133-140: Periodic system of elements: history, isotopes, magic numbers of electrons and nucleons.
622. M. Bem, M.T. Căproiu, D. Stoicescu, T. Constantinescu, and A.T. Balaban, *Central Eur. J. Chem.*, **2003**, *3*, 260-276: Synthesis of 4-aryloxy-7-nitrobenzofurazan derivatives from 4-chloro-7-nitrobenzofurazan and various phenoxide anions (including pharmaceuticals) in the presence of crown ethers.
623. A. Beteringhe, I. Baciuc, M.T. Căproiu, T. Constantinescu, and A.T. Balaban, *J. Planar Chromatog.*, **2003**, *16*, 268-270: O-Methyloximes of testosterone and of 17 α -methyltestosterone: TLC and QSPR study of RF values.
624. L. Pogliani, D.J. Klein, and A.T. Balaban, *Match, Commun. Math. Computer Chem.*, **2004**, *51*, 213-240. The number two and the intriguing dualism of nature. Scientific curiosity and everyday concepts.

625. A.T. Balaban, I. Ghiviriga, E.W. Czerwinski, P. De, and R. Faust, *J. Org. Chem.*, **2004**, *69*, 536-542: Simple synthesis of a weak nucleophilic base (4-ethyl-2,6-diisopropylpyridine) evidencing a double Janus group effect.
626. M. Randic and A.T. Balaban, *Polycyclic Arom. Comp.*, **2004**, *24*, 173-193: Partitioning of π -electrons in rings of polycyclic conjugated hydrocarbons. Part 1. Catacondensed benzenoids.
627. A.T. Balaban and M. Randic, *J. Chem. Inf. Comput. Sci.*, **2004**, *44*, 50-59: Partitioning of π -electrons in rings of polycyclic benzenoid hydrocarbons. Part 2. Catacondensed coronoids.
628. A.T. Balaban and M. Randic, *New J. Chem.*, **2004**, *28*, 800-806: Partitioning of π -electrons in rings of polycyclic conjugated hydrocarbons. Part 3. Perifusenes.
629. D. Vukicevic, M. Randic and A.T. Balaban, *J. Math. Chem.*, **2004**, *36*, 271-279. Partitioning of π -electrons in rings of polycyclic conjugated hydrocarbons. Part 4. Benzenoids with more than one geometric Kekulé structure corresponding to the same algebraic Kekulé structure.
630. A.T. Balaban and M. Randic, *J. Chem. Inf. Comput. Sci.*, **2004**, *44*, 1701-1707 : Partitioning of π -electrons in rings of polycyclic conjugated hydrocarbons. Part 5. Nonalternant compounds.
631. I. Ghiviriga, E.W. Czerwinski, and A.T. Balaban, *Croat. Chem. Acta*, **2004**, *77*, 391-396: Rotation barriers in pyridinium salts depend on the number of available ground state conformations.
632. C.A. Simion, C. Postolache, C. Deleanu, C.M. Barna, I. Bally and A.T. Balaban, *J. Labelled Comp. Radiopharm.*, **2004**, *47*, 719-722: Synthesis of N[1-¹³C]caproyl-N⁷-phenylthiourea.
633. A. Beteringhe and A.T. Balaban, *ARKIVOC*, **2004**, (*i*), 163-182: QSAR for toxicities of polychlorodibenzofurans, polychlorodibenzo-1,4-dioxins, and polychloro-biphenyls.
634. A.T. Balaban, D.C. Oniciu, and A.R. Katritzky, *Chem. Rev.*, **2004**, *104*, 2777-2812: Aromaticity as a cornerstone in heterocyclic chemistry.
635. M. Randic, J. Zupan, and A.T. Balaban, *Chem. Phys. Lett.*, **2004**, *397*, 247-252: Unique graphical representation of protein sequences based on nucleotide triplet codons.
636. M.A. Ilies, W.A. Seitz, I. Ghiviriga, B.H. Johnson, A. Miller, E.B. Thompson, and A.T. Balaban, *J. Med. Chem.*, **2004**, *47*, 3744-3754: Pyridinium cationic lipids in gene delivery: a structure-activity correlation study.
637. S.C. Basak, B.D. Gute, and A.T. Balaban, *Croat. Chem. Acta*, **2004**, *77*, 331-344: Interrelationship of major topological indices evidenced by clustering.
638. A.T. Balaban, *Polycyclic Arom. Comp.*, **2004**, *24*, 83-89: Clar formulas: how to draw and how not to draw formulas of polycyclic aromatic compounds.
639. A.T. Balaban, S.C. Basak, A. Beteringhe, D. Mills, and C.T. Supuran, *Mol. Diversity*, **2004**, *8*, 401-412: QSAR study using topological indices for inhibition for carbonic anhydrase II by sulfanilamides and Schiff bases.
640. M. Bem, M. Vasilescu, M.T. Căproiu, C. Drăghici, A. Beteringhe, T. Constantinescu, M.D. Banciu and A.T. Balaban, *Central Eur. Chem. J.*, **2004**, *2*, 672-685: Structural factors influencing the reaction rates of 4-aryloxy-7-nitrobenzofurazans with amino acids.
641. A.T. Balaban, *Chem. Educator*, **2004**, *9*, 1-3: Chemistry is as easy as 2-3-4 (types of: atoms – chemical bonds – crystal lattices). The Romanian translation will be published in the Bulletin of the Romanian Chemical Society.
642. M. Pompe, M. Veber, A.T. Balaban and M. Randic, *Molecules*, **2004**, *9*, 1160-1176: Use of variable and fixed topological indices for the prediction of rate constants for reactions of selected organic compounds with OH radicals.
643. C.G. Matasa and A.T. Balaban, *Orthodont. Materials Insider*, **2004**, *16*, 2-8: Challenges in medical in-situ biometarials polymerization.
644. A.T. Balaban, D. J. Klein and O. Ivanciuc, *Fullerenes, Nanotubes and Carbon Nanostructures*, **2005**, *13*, 109-129: Large "pillow" fullerenes hydrogenated at the inter-sheet "seam". Erratum, *ibid.* **2005**, *13*, 277.
645. A.T. Balaban, D.J. Klein, N.H. March, M.P. Tosi, and M. Ausloos, *Chem. Phys. Chem.*, **2005**, *6*, 1741-1745: Phase transition regularities in critical constants, fusion temperatures and enthalpies of some chemically similar chainlike structures.
646. S. Ionescu, D. Popovici, A. T. Balaban, and M. Hillebrand, *Spectrochim. Acta A*, **2005**, *62*, 252-260: Experimental and theoretical study of 2,5-diaryloxazoles whose aryl are *para*-substituted phenyl groups.
647. M.A. Ilies, B.H. Johnson, F. Makori, A. Miller, W.A. Seitz, E.B. Thompson, and A.T. Balaban, *Archives Biochem. Biophys.*, **2005**, *435*, 217-226: An in vitro and in vivo comparison of transfection efficiency versus a tetraalkylammonium congener.

648. A.T. Balaban, *MATCH, Commun. Math. Comput. Chem.*, **2005**, *37*, 7-14: Recollections about Professor Oskar E. Polansky: A personal account occasioned by the 30th anniversary of *MATCH*.
649. A.T. Balaban, *Fundamenta Informaticae*, **2005**, *64*, 1-16: Mathematical chemistry: (3,g)-cages with girth g, topological indices, and other graph-theoretical problems.
650. A.T. Balaban, *Foundations Chem.*, **2005**, *7*, 289-306: Reflections about mathematical chemistry.
651. I. Gutman, A.T. Balaban, M. Randić, and C. Kiss-Tóth, *Z. Naturforsch.*, **2005**, *60a*, 171-176: Partitioning of π -electrons in rings of fibonacenes.
652. A.T. Balaban and D. Bonchev, *MATCH, Commun. Math. Comput. Chem.*, **2005**, *54*, 137-152: Complexity, sphericity, and ordering of regular and semiregular polyhedra.
653. A.T. Balaban and M. Randic, *J. Math. Chem.*, **2005**, *37*, 443-453: Partitioning of π -electrons in rings of polycyclic conjugated hydrocarbons. Part 6. Comparison with other methods for estimating the local aromaticity of rings in polycyclic benzenoids.
654. D. Vukicevic and A.T. Balaban, *Internet Electron. J. Mol. Des.*, **2005**, *4*, 491-500: On the degeneracy of the topological index J.
655. M. Randic, N. Lers, D. Plavsic, S.C. Basak, and A.T. Balaban, *Chem. Phys. Lett.*, **2005**, *407*, 205-208: Four-color map representation of DNA or RNA sequences and their numerical characterization.
656. J. Klun, A.T. Balaban, R. Natarajan, S.C. Basak, and W. Schmidt, *Pest Management Sci.*, **2005**, *61*, 1193-1201: Chirality index, molecular overlay and the activity of stereoisomeric topical mosquito repellents.
657. A.T. Balaban, D.J. Klein, N.H. March, and C.C. Matthai, *Phys. Chem. Liquids*, **2005**, *43*, 403-407: Transport and thermodynamic properties in low melting point ionic liquids related to n-alkyl chain length
658. I. Gutman, M. Randic, A.T. Balaban, B. Furtula, and V. Vuckovic, *Polycyclic Arom. Comp.*, **2005**, *25*, 215-226: π -Electron contents of rings in the double-hexagonal chain homologous series (pyrene, anthanthrene and other acenoacenes).
659. A.T. Balaban, *J. Comp.-Aided Mol. Design*, **2005**, *19*, 651-660: Can topological indices transmit information on properties but not on structures?
660. A.T. Balaban, P.V.R. Schleyer, and H.S. Rzepa, *Chem. Rev.*, **2005**, *105*, 3436-3447: Crocker, not Armit and Robinson, begat the six aromatic electrons.
661. C.G. Matasa and A.T. Balaban, *Bull. Mol. Med.*, **2005**, No. 23, 19-32: In situ polymerizable resins and the "nano"era.
662. L. Pogliani, D.J. Klein, and A.T. Balaban, *Kragujevac J. Sci.*, **2005**, *27*, 75-114: The intriguing human preference for a ternary patterned reality.
663. A.T. Balaban, *Revista de Politica Stiintei si Scientometrie*, **2005**, *3*, 95-96: A scientometric index for individual scientific performance (in Romanian).
664. M.A. Ilies, B.H. Johnson, W.A. Seitz, E.L. Ezell, A. Miller, E.B. Thompson, and A.T. Balaban, *Molecular Therapy*, **2005**, *11*, Suppl. 1, S227. Structure-activity relationships in two series of pyridinium gemini surfactants for gene delivery (Meeting Abstract # 588).
665. V. Dragutan, I. Dragutan and A.T. Balaban, *Platinum Metals Rev.*, **2006**, *50*, 35-37: 2005 Nobel Prize in Chemistry awarded for the development of the metathesis reaction in organic synthesis.
666. I. Gutman, B. Furtula, and A.T. Balaban, *Polycyclic Aromatic Compounds*, **2006**, *26*, 17-35: Algorithm for simultaneous calculation of Kekulé and Clar structure counts, and Clar number of benzenoid molecules.
667. A.T. Balaban, P.V. Khadikar, C.T. Supuran, A. Thakur, and M. Thakur, *Bioorg. Med. Chem. Lett.*, **2005**, *15*, 3966-3973: Study on supramolecular complexing ability vis-à-vis estimation of pK_a of substituted sulfonamides: dominating role of Balaban index (*J*).
668. M. Randic, A.T. Balaban, T. Pisanski, and M. Novic, *Periodicum Biologorum*, **2005**, *197*, 403-414: A novel graphical representation of proteins.
669. M. Randic and A.T. Balaban, *J. Chem. Inf. Model.*, **2006**, *46*, 57-64: Partitioning of π -electrons in rings for Clar structures of benzenoid hydrocarbons.
670. D.J. Klein and A.T. Balaban, *J. Chem. Inf. Modeling.*, **2006**, *46*, 307-320: The eight classes of positive-curvature graphitic nanocones.

D. Patents

27. A.T. Balaban, W.A. Seitz and M. Ilies, Pyridinium cationic lipids for gene transfer synthesized from pyrylium salts and primary amines. U. S. Patent Appl. 60/456,328 (03/20/2003).