

Academician Alexandru T. BALABAN



ACADEMICIAN ALEXANDRU T. BALABAN AT HIS 90th ANNIVERSARY

In 1992 I had the privilege to attend The Bürgenstock-Conference (SCS Conference on Stereochemistry). I was probably the oldest young scientist included in the JSP Program in that year. As usual for Bürgenstock there were outstanding lectures given by elite scientists.

First day I met professor André S. Dreiding, the founder of the Conference. He told me that in 1965 he invited professor Nenitzescu to the first edition of the Conference (the letter of invitation can be found at The “C. D. Nenitzescu” Center of Organic Chemistry in Bucharest) and, if a health condition wouldn't have stopped him from attending, his name would have been included in the Cahn-Ingold-Prelog rules appellation.

During the conference there was not a single day when the works of professor Balaban were not cited by at least one of the lecturers.

It was an unexpected and overwhelming recognition of the Roumanian organic chemistry school's contribution to the main stream research in chemistry and of the international status of its most relevant representatives.

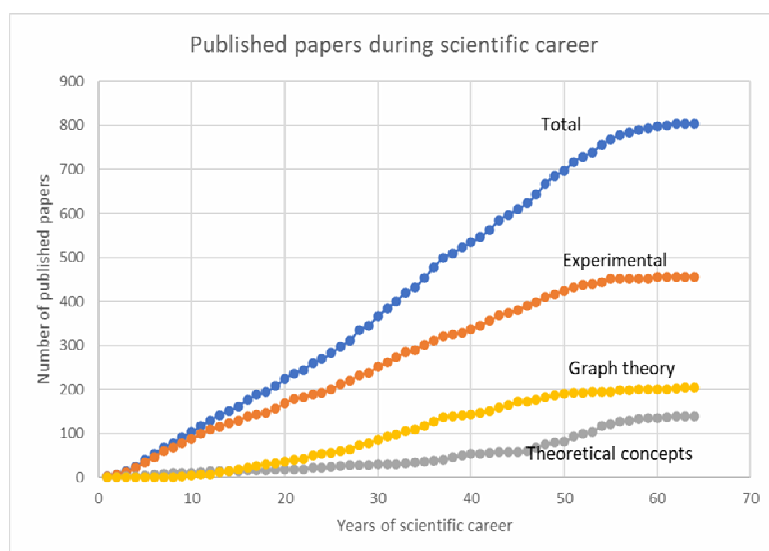
Professor Alexandru T. Balaban was born in Timișoara, Roumania, on April 2nd, 1931. He obtained his *Ph. D.* under the supervision of professor Costin D. Nenitzescu in 1959 and later a *D. Sc.* in 1974. He also became a Dipl. Radiochemist in 1957, and in 1961 he founded the laboratory for Isotopically Labeled Compounds at the Institute of Atomic Physics in Bucharest. From 1956 until 1999 Professor Balaban taught, with short interruptions, basic organic chemistry, as well as advanced topics, to many generations of students at the Bucharest Polytechnic University and became the most remarkable figure of the organic chemistry school created by professor Nenitzescu.

If a graph is made correlating the number of published papers, in his favorite areas, with the years of research activity you can see that creating science was his main focus. No matter of the administrative positions he held, research was his first priority.

Working with Professor Balaban even for a short period of time is a privilege, as you get the chance to discover that behind the outstanding scientist there is an encyclopedic personality covering the most diverse segments of human culture.

As a scientist he teaches you how to quest for challenges and focus on novelties. As a man he teaches you to find the good things and qualities within your team and to nourish joint efforts for reaching gratifying results.

Recently, I discovered another, less visible, trait of his character – sentimentalism. Surfing on the net for Professor Balaban's writings I came across a site connected with the birth place of his parents: <http://balabanesti.wordpress.com/2010/05/29/pe-urmele-balabanestenilor-%E2%80%93-confesiuni-profesor-doctor-docent-alexandru-t-balaban/>. The site was build with the occasion of the anniversary of 550 years of documented existence of the community and



posted confessions about his childhood and youth, showing him to be a much warmer person than one would imagine.

Celebrating his 90th birthday in 2021, his many friends, former students and all those who had and have the honor to work with him send their wishes for many happy and fruitful years.

*Dr. Petru FILIP
"C. D. Nenitzescu"
Institute of Organic Chemistry
of the Roumanian Academy*

LIST OF PUBLICATIONS

B. Book chapters

80. A. T. Balaban, "Quantitative Structure-Activity Relationships and Computational Methods in Drug Discovery", in "Encyclopedia of Analytical Chemistry", R.A. Meyers (Ed.), John Wiley: Chichester., 2016; DOI: 10.1002/9780470027318.a1918.pub3
81. A. T. Balaban "Stable Hydrazyls and Push–Pull (Capto-Dative) Aminyl Free Radicals", in "Patai's Chemistry of Functional Groups", J. Liebman and A. Greer (Eds.), John Wiley & Sons, Ltd: Chichester, UK, 2017; DOI: 10.1002/9780470682531.pat0920

C. Articles in peer-reviewed scientific journals

796. A. T. Balaban, *Rev. Chim. (Bucharest)*, **2016**, *67*, No. 8, I–II, Professor Claude Nicolau, a chemist who hopes to overcome diseases considered to be incurable.
797. A. T. Balaban, *Rev. Chim.(Bucharest)*, **2016**, *61*, 1655–1657, Nicholas Bodor: A chemist from Transylvania in the American Chemical Society's Hall of Fame.
798. A. T. Balaban, *Rev. Roum. Chem.*, **2016**, *61*, 625–627, Professor Claude Nicolau, honorary member of the Roumanian Academy, at his 80th anniversary.
799. A. T. Balaban, *Academica*, **2016**, *26*, 94–96, To donate something that enriches oneself (in Roumanian: A darui ceea ce te imbogateste pe tine insuti).
800. A. T. Balaban, T. Constantinescu, M. Teodor Caproiu, M. Giorgi and T. S. Balaban, *Ztschr, Naturforsch.*, **2017**, *72b*, 89–94, Crystal and molecular structure of 1-picryl-2-phenyl-2-(4-picrylamidophenyl)-diazonium betaine: analogy between a picramido group and an oxygen atom.
801. A. T. Balaban, Y. P. Ortiz, D. J. Klein and, D. Bhattacharya, *Croat. Chem. Acta*, **2017**, *89*, 463–470, Energies for cyclic and acyclic aggregates of adamantane sharing six-membered rings.
802. A. T. Balaban, *Soc. Comput. Chem. Japan*, **2017**, *16*, 33–37, Chemistry-Mathematics-Philosophy Brew: A Personal Approach.
803. R. D. Baratoiu (Carpen), M. Bem, A. C. Radutiu, T. Spataru, M. Radu, M. Voicescu, G. Ionita, N. Stanica, T. Constantinescu and A. T. Balaban, *Monatsh. Chem.*, **2017**, *148*, 1411–1416, Picryl-2-phenyl-2-(4-picrylamidophenyl)-diazonium betaine and its radical-anion: synthesis and physical properties.
804. A. T. Balaban, *Rev. Chim.(Bucharest)*, **2018**, *63*, 1–5, Mihail Barboiu : From molecular machines to biomimetic artificial membranes and dynamicconstitutional materials.
805. M. Randić and A. T. Balaban, *Int. J. Quantum Chem.*, **2018**, *118*, e25657; [https:// doi.org/10.1002/qua.25657](https://doi.org/10.1002/qua.25657), Local aromaticity and aromatic sextet theory beyond Clar.
806. M. Bem, A. C. Radutoiu, M. Voicescu, M. T. Caproiu, C. Draghici, M. Maganu, C. Enache, T. Cosnstantinescu and A. T, Balaban, *Rev. Roum. Chim.*, **2018**, *63*, 149–155, Nitrobenzo[c][1,2,5]oxadiazole (nitrobenzofurazan) derovatives with a sulfide group in the 4-posiion. Synthesis and physical properties.
807. A. T. Balaban and M. Randić, *MATCH Commun. Math. Comput. Chem.*, **2019**, *82*, 139–162, Coding canonical Clar structures of polycyclicbenzenoid hydrocarbons,
808. J. A. Rodriguez-Velazquez and A. T. Balaban, *J. Math. Chem.*, **2019**, *57*, 1053–1074, Two new topological indices based on graph adjacency matrix eigenvaluesand eigenvectors.
809. A. T. Balaban, *J. Res. Philos. Hist.*, **2019**, *2*, 44–53, Science. technology, ad medicine have progressed immensely duuring the last five centuries, yet mankind is threatened by self-destruction.
810. A. T. Balaban, *Struct. Chem.*, **2019**, *30*, 1129–1139, On pyrylium cations, molecular graphs, topological indices for QSAR, and variou othersstructural problems (DOI: 10.1007/s11224-019-01341-w).
811. J. A. Rodriguez-Velazquez and A. T. Balabn, *J. Math. Chem.*, **2020**, *58*, 439–457, Criteria for ranking (poly)cyclic chemical constitutional graphs and their vertices via centrality measures.

