



### In honour of Professor Emeritus Milan RANDIĆ

When I was invited to take over the editorship of this special issue of *Acta Chimica Slovenica*, dedicated to Professor Milan Randić on the occasion of his eightieth birthday, I took the challenge with a great deal of honour and pleasure. I have known Professor Randić as a person with broad knowledge in theoretical chemistry and mathematics, especially graph theory. He opened a wide area of research in mathematical chemistry which has had a tremendous impact on scientific community. He is considered a pioneer in chemical modelling, both in terms of mathematical description of molecular branching, for which he had introduced the connectivity index, and mathematical description of aromaticity, which is one of the central phenomena in chemistry. Aromaticity has been successfully tackled by the conjugated circuits paradigm of advanced Graph Theory, and further applied and combined with Kekulé structures to produce a comprehensive picture of modern chemistry. Having made significant achievements in the research area of mathematical chemistry, Professor Milan Randić has recently found interest in the field of the so called »omics« in modern life science, in which he has already succeeded to draw attention of scientific community with the application of mathematical methods in proteomics and genomics. The curiosity-driven research spirit of Milan was not satisfied with the natural sciences only, as one can see from the photo above. He has recently published a book on Nobel, a universal graphical language which he was developing as a hobby for a long time.

Milan Randić took studies in Theoretical Physics at the Faculty of Natural Sciences and Mathematics, University of Zagreb, Croatia, during 1949–53. He finished his PhD at the University of Cambridge, UK, under the supervision of Norman Sheppard, FRS, with a thesis on high resolution infrared spectroscopy. After returning to Zagreb he founded the Group for Theoretical Chemistry at the Institute Rudjer Bošković. He was appointed Associate Professor and later became Full Professor at the Chemistry Department of the University of Zagreb, Croatia, and kept this position from 1966 to 71. From 1964–79 he worked periodically with many distinguished scientists, among others with Professors Robert G. Parr, E. Bright Wilson, David Bishop, Frank E. Harris and C. L. Wilkins. From 1980–2000 he was appointed Associate Professor, Professor, and Distinguished Professor at the Department of Mathematics and Computer Science, Drake University, Des Moines, IA. From 1995 on he has been acting as Visiting Scientist at the National Institute of Chemistry, Laboratory of Chemometrics, Ljubljana, Slovenia. In 2004 he became honourable member of the National Institute of Chemistry. Currently, he is also Ellis and Nelle Levit Professor Emeritus of the Drake University, Des Moines, Iowa, USA, Member of the Croatian Academy of Sciences and Arts, Honorary Member of the Croatian Chemical Society, and Founding Member, Vice-President and Honorary Fellow of the International Academy of Mathematical Chemistry.

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Professor Randić has been member of numerous Editorial Boards of scientific journals: *Acta Chimica Slovenica*, *Chemical Physics Letters* (10 years); *Journal of Mathematical Chemistry*, *Journal of Chemical Information and Computer Science* (10 years), *SAR & QSAR in Environmental Research*, *Croatica Chemica Acta*, *Current Computer-Aided Drug Design*, *Ars Mathematica Contemporanea*, *The Open Applied Informatics Journal*, and *DIVULG@ Meeting in Science, Technology, Education and Gender*.

The work of Milan Randić has been acknowledged by several communities: in 1966 he received the Annual Science Award of the City of Zagreb, Croatia, in 1988 the Annual Award for Science of Republic of Slovenia (with Slovenian co-workers), in 1990 the Governor's Science Achievement Award (the annual award for science for Iowa), in 1996 the Herman Skolnik Award (annual award given by the Division of Chemical Information of the American Chemical Society). In 2000, in celebration of the 25 anniversary of the publication of his article on the connectivity index, professors L. L. Hall and L. B. Kier (the promoters and further developers of Randić's connectivity index), organized the First Quarter Century Symposium on Molecular Connectivity, carried out under the Division of Computers in Chemistry of the American Chemical Society.

Milan Randić is listed among 125 Most-Cited JACS authors (*J. Am. Chem. Soc.*, 2003, 125, 1–8) for his publication on the connectivity index (*J. Am. Chem. Soc.* 1975, 97, 6609–6615) and assumes the 94<sup>th</sup> position. The same publication has also been listed among 30 most cited publications published in the *J. Am. Chem. Soc.* since 1975.

One could go on enumerating Professor Randić's achievements; there are so many and it is not easy to decide where to stop. Nevertheless, I would finally like to point out perhaps one of the most important and valuable features of this great scientist, namely the enthusiasm which he keeps spreading among co-workers and young students, showing that science can also be fun and entertaining. I would like to thank Professor Milan Randić for bringing Graph Theory and all the treasure knowledge he has created and shared with us in advancing chemical modelling, cheminformatics and bioinformatics.

*On behalf of all his co-workers and friends, I would like to raise a toast: Happy birthday Milan, have a prosperous future with many challenges ahead!*

Marjana Novič  
(Guest Editor of *Acta Chimica Slovenica*)

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