Food Technol. Biotechnol. 38 (2000) 325-326.

In memoriam

Mihael Tkalcec (1942-2000)

On August 21, 2000 our dear friend and colleague, dr. sc. Mihael Tkalcec, Associate Professor at the Department of General and Inorganic Chemistry of the Faculty of Chemical Engineering and Technology, University of Zagreb, passed away. In this Department, formerly being Department of the Faculty of Technology, involved in two studies, Chemical Technology and Biotechnology, Mihael Tkalcec was active all his life.

Mihael Tkalcec was born in Zagreb on May 8, 1942. As early as in the high school he showed extraordinary talent for natural and technical sciences. His imaginative and creative thinking was coupled with exeptional skill to build and work out into a final product even the most sophisticated and demanding idea. His attraction was devoted primarily to chemistry and electrochemistry.

Moreover, Michael Tkalcec was not only talented for the science, but his gift for painting and music (guitar and organ) was also recognised among his friend and colleagues.

He graduated in 1967 under the mentorship of Professor Ivan Filipovic, Head of the Department of General and Inorganic Chemistry of the Faculty of Technology, University of Zagreb with the Bachelor of science thesis "Investigation of the Adsorption of Lead Ion on Mercury Electrode in Iodide Solutions by Measuring the Double Layer Capacitance". This was a demanding task for a young student.

Mihael Tkalcec was appointed as young Assistant in the Department during a very fruitful period when Professors I. Filipovic and I. Piljac formed a group of young enthusiasts. This group in barely five years (from 1967 until 1972) improved the polarographic measurements from manual to fully computarised electrochemical system (first in ex-Yugoslavia and one among twenty similar systems in the world). Mihael Tkalcec was an ideal person to lead this project due to his profound knowledge, both chemical and electronic, as well as for his extraordinary skill to build computer contolled executive devices (microburette, valves, electromagnetic mercury drop hammer, etc.), electrochemical instrumentation and all necessary interface.

Using his computerised system with a spectrochemical set-up, probably the first quantitative interaction (stability constant) of a metal ion (Li+) and the radical (1-hydroxy-9,10-

anthraquinone) was measured, a task hardly possible to be undertaken in that period using commercial instrumentation.

Mihael Tkalcec has always been a person unsatisfied with ordinary solutions and tasks. He had very high criteria for himself as well as for the whole group, in defining the task and finding the experimental and theoretical solutions. His PhD thesis (1977) "Electrochemical System Interfaced with Digital Computer and its Application in Investigation of the Kinetics of Electrode Reactions and Kinetic of Adsorption of Surface Active Substances" was highly priced worldwide.

When the late Professor Donald E. Smith from Northwestern University in Evastene, one of the most distinguished electrochemists in the world in 60´s and 70´s, visited Zagreb and got acquainted with the scientific activity and the skill of Mihael Tkalcec, he offered him an open term postdoctoral scholarship. Unfortunately, Mihael Tkalcec never accepted this generous offer, due to his family obligations.

Mihael Tkalcec published about twenty scientific papers in international journals on pioneering work with computerised instrumentation and its application in investigation of metal ion complex equilibria, kinetics of electorchemical and chemical reactions and kinetics of the adsorption on the electrode.

For his innovation "Computerised System for Measurement in Chemical Laboratory" he was awarded with a Golden Medal at INOVA´89 fair. He was a coauthor of several high-school books, and his contribution in Technical Encyclopedia of the Croatian Lexicographic Publisher "Miroslav Krleza" was also well appreciated.

He was also a great teacher. The students loved his teaching in Inorganic Chemistry together with experiments he was always improving and innovating. Many Bachelor of science and Master of science these were done under his mentorship.

Mihael Tkalcec left his family, his friends and his colleagues too early. He was a rare combination of a Renaissance man and a man of modern computerised era, with rich personal life, having a broad interest from science to art. We, his friends, have learned a lot from him in all respects. The vacancy he left behind is proportional to his personal versatility and sophistication, and, therefore, it is irreplaceable. With him a significant part of our life has gone, but he will always remain in our memory and our heart.

Thanks, dear friend, for all we have done together in our thirty years of friendship and academic work.

Bozidar Grabaric