

NEKROLOG

OBITUARY

Zlata Štefanac
(1926–2000)

Professor Zlata Štefanac died in Zagreb on April 20, 2000. For many years she had been a member of the Editorial Board of *Croatica Chemica Acta* and from 1958 to 1960 assistant editor of the journal. Those who knew her well are deeply saddened by her demise and are thankful for the high standards of scientific dedication and professionalism that she has set for the next generations.

Professor Zlata Štefanac was born in Zagreb on February 21, 1926. She attended primary school and grammar school in Zagreb, where she also studied chemistry in the Department of Chemistry, Faculty of Science, University of Zagreb. She graduated in chemistry in 1952 and received her Ph.D. degree in 1958 by defending the doctoral thesis entitled »Isolation and Identification of Alkaloids from *Amanita Muscaria* L.« From 1953 to 1954, she worked as a junior researcher in the Department of Organic Chemistry of the Ruđer Bošković Institute. In 1954, she was appointed assistant lecturer in the Laboratory of Organic Chemistry, Faculty of Science, where she remained until 1969 and became assistant professor in 1961 and associate professor in 1966. From 1969 to 1974, she worked as a senior scientist in the Institute for Medical Research and Occupational Health. From 1970 until retirement, she worked in the Laboratory of Analytical Chemistry at the Faculty of Science, where she became full professor in 1973. She taught courses in organic analysis, biochemical analysis, and instrumental methods for chemical analysis. She supervised many graduate, postgraduate and doctoral theses.

She spent the school year 1960/1961 in the Pregl Laboratory in Graz specializing in organic microanalysis. In the 1963–1981 period, she spent several times a couple of months in the group of Professor Wilhelm Simon at the Swiss Federal Institute of Technology (ETH) in Zürich as guest researcher. During her scientific career, she authored/coauthored about 70 scientific papers.

Zlata Štefanac was a gifted analytical chemist, capable of linking information from different fields of chemistry and using it for analytical purposes. She started with classical organic elemental and functional group analysis and returned to this field repeatedly (development or modification of the determination procedures for oxygen, arsenic, selenium, calcium, phosphorous, active hydrogen, ethoxyl group, methoxyl group). In the sixties, she recognized the importance of combined instrumental techniques. The instrumental analysis of organic compounds by combined spectroscopic techniques was one of her favourite themes in research, as well as in education. To her goes the credit for the popularization of this field in Croatia. Her scientific work included studies of spectroscopic characteristics and complexation abilities of different organic ligands, promising, from the analytical view-point, for working out procedures for determination of metal ions in composite samples. She was also interested in enzymes as highly specific analytical reagents. Part of her research was focused on the development and application of analytical methods for trace analysis of organic micropollutants, primary organophosphorus compounds, in aquatic environments and in humans.

The most important part of her research, however, concerns ion-selective electrodes. In the long-standing collaboration with professor W. Simon, she completed a series of studies on the development and application of ion selective electrodes (glass electrodes for H^+ , K^+ and Na^+ , liquid membrane electrodes based on antibiotics, synthetic ligands, enzymes). The most notable among them is the development of a valinomycin-based potassium electrode. Practically every advanced electrochemical monograph cites this pioneering work. The valinomycin-based potassium electrode is today used all over the world in routine analysis.

Zlata Štefanac was a hardworking analyst and a dedicated and serious teacher. She felt deep responsibility for her nation and the education of its chemists. She regarded her teaching as a very important duty and dedicated very much time to it, preparing her lectures with extraordinary care. She did not teach only university students, but also taught special courses in industry about innovations and modern trends in analytical chemistry. She always found time for her students and co-workers, for their problems and questions.

Zlata Štefanac was a modest and discreet person with high standards in her professional and private life. She will be long remembered by all those who had the pleasure to work with her for her amazing energy, thoroughness, patience, and fairness. Her life philosophy is perhaps best illustrated by the dedication she wrote in a book that she gave to one of her co-workers: »Patient, persistent, and unobtrusive work is the foundation of all wonders of the world.«

Zvezdana Cimerman

Vlasta Drevenkar

List of Selected Scientific Papers

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3. K. Balenović, N. Bregant, and Z. Štefanac:
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