

Joseph Oscar Wilhelm: 1899-1953

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JOSEPH OSCAR WILHELM, O.B.E., B.Sc., M.A., Director of the Research Council of Ontario, died in Toronto General Hospital on November 19, 1953, after a short illness. His death at the age of 54 cut short a distinguished career.

Professor Wilhelm was born in Shakespeare, Ontario. Educated at the University of Saskatchewan and the University of Toronto, he lectured in the physics department of the latter university from 1927 to 1948. He served, on leave of absence in World War II, as technical assistant to the president of Research Enterprises Limited, with the National Research Council of Canada, with the R.C.A.F. as director of Operational Research, and with the federal Department of Reconstruction.

Following the war he was secretary of the Ontario Research Commission, 1945-48. Their work resulted in the establishment of the Research Council of Ontario. As director for the Council since 1948, his energy and ability were largely responsible for the organization of more than 250 representatives of industry, government, and universities in various research committees concerned with technical problems

affecting Ontario's natural resources and the supply of scientists. In this work his deepest faith lay in new generations of students whose possibilities inspired his efforts.

In addition to many other affiliations, both with community organizations and professional groups, he was first vice-president of the Royal Canadian Institute and chairman of the board of Knox Theological College, Toronto. He was well known to many scientists in Britain and the United States. A recognized authority on low temperature physics, he was equally at home with men and ideas. His bent for organization sprang from his imaginative grasp of problems outside his own field, his fresh and stimulating spirit, and his capacity for friendship. Always willing to attempt the difficult, he was devoted to the public welfare. His early death was a shock to his many colleagues and friends, a distinct loss to Canada and the community in which he lived.

In 1927 Professor Wilhelm married Nan Kathleen Munro of Saskatoon. He is survived by his widow, a son Donald who is at present in England, and a daughter Mildred, who is now attending high school.



News and Notes

High Polymer Chemistry

THE Fifth Canadian High Polymer Forum, cosponsored by the Chemical Institute of Canada and the National Research Council of Canada, was held in London, Ontario, Nov. 19-20, 1953. Papers were presented on all phases of high polymer chemistry.

Polymerization reactions revealed a continued trend to more basic investigations. A. D. Macallum described the preparation of phenylene monosulfide copolymer resins from *p*-dichlorobenzene or trichlorobenzene by fusion with sodium carbonate and sulfur. W. F. Graydon has found differences in equilibrium quotient between ion-exchange resins prepared by sulfonating cross-linked polystyrene and hydrolysis of esters of *p*-styrene sulfonic acid of equivalent nominal cross-linking and capacity. C. G. Overberger described the recent work on polymerization of styrene using stannic chloride catalyst in solvents such as carbon tetrachloride or nitrobenzene and concluded that it was possible to assign a nucleophilicity factor for attack of an ion pair on an aromatic nucleus. M. Talat-Erben has found an intermediate in the decomposition of 2,2'-azobisisobutyronitrile and has isolated products which could arise from this intermediate. The mecha-

nism of the reaction is suggested to be scission of the nitrile to yield the intermediate and hydrolysis of the intermediate to yield such products as *N*-isobutyryl alpha amino isobutyric acid and the corresponding amide. D. James described the polymerization of acrylonitrile in aqueous solution, using hydrogen atoms or hydroxyl radicals formed photochemically from dissolved inorganic ions. L. Gendron described the method of determining the relative amounts of 1,2 and 1,4 addition in butadiene polymerization for forming the dimer in dilute chloroform solution with acetyl peroxide as initiator, followed by infra-red analysis and ozonolysis of the mixed dimers.

Properties of solutions of polymers continue to be of great interest to high polymer chemists. U. P. Strauss found that the viscosity of a polysoap solution, such as quaternized polyvinyl pyridine in solution, varied with the type of hydrocarbon being solubilized. These changes were interpreted as caused by changes in the size of the micelles and to interaction of the polysoap molecules. L. H. Cragg reviewed the significance of the viscosity slope constant in revealing the changes in branching of polystyrene and butadiene-styrene copolymers and other differences of the