

WG Sayre, Ph.D.

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PROFILE

WG Sayre has a Ph.D. from University of Michigan and is a retired Chemistry Professor who worked from 1969 to 2003 at Slippery Rock University, a member of the Pennsylvania State System of Higher Education (PSSHE). Slippery Rock University (SRU), one of 14 PSSHE members, has approximately 10,000 students. The Chemistry Department, during the tenure period, had nine faculty members.

EMPLOYMENT

Professor, Slippery Rock University, Slippery Rock, PA 1983-2003

During tenure as Full Professor, job description involved teaching four classes each semester and serving on department, college and university committees. In addition, service was given to the university as Associate Dean of the College Fine Arts, Humanities, and Sciences (1985-1986) and department chair for two 2-year terms.

Associate professor and Assistant Professor, Slippery Rock University, Slippery Rock, PA 1969-1983

During this time period, service was given to the university by teaching four classes each semester, service on various university, college and department committees. Additional service was provided as a faculty member at the Marine Science Consortium, Wallops Island.

Research Assistant, University of Michigan, Ann Arbor, MI 1968-1969

Research in Boron Chemistry

Stauffer Research Fellow, University of Michigan, Ann Arbor, MI 1967-1968

Research in Boron Chemistry

Teaching Assistant, University of Michigan, Ann Arbor, MI 1965-1967

Taught undergraduate General Chemistry, recitation sessions and Chemistry I and II Laboratories

Maintenance Director, Magnetic Resonance Instruments, Case Institute of Technology, Cleveland, OH 1964-1965

EDUCATION

Case Institute of Technology, Cleveland, Ohio

- Bachelor of Science in Chemistry, 1965

University of Michigan, Ann Arbor, Michigan

- Masters of Science in Chemistry, 1967
- Doctor of Philosophy in Chemistry, 1969 (*Dissertation: The Diadduct of BF₃ and Triethylamine and the BCL₃ Toluene Complex*).

PUBLICATIONS

Author or co-author on a variety of articles published in refereed journals. The following listing is a sample of publications prior to retirement. *Additional listing provided upon request.*

- Sayre, WG & N. E. Sayre, (1998). A good beginning. Journal of Chemical of Education.
- Medve, R.J. & WG Sayre (1991). Mycorrhizomes in protecting red pine from heavy metal toxicity (1991), Pennsylvania Journal of Biology.
- Sayre, WG (1982). The determination of selenite and selenate in ion chromatography. *Aria and Aquia*.

PRESENTATIONS

Environmental Chemistry and Engineering presentations were made at international (5), national (1), and regional (2) refereed conferences as well as a variety of local meetings. The following is a listing of presentations prior to retirement. *Additional listing provided upon request.*

- Sayre, WG. (1990). The other acids in acid rain, carboxylic acids. NAPAP International Conference, Hilton Head, SC.
- Sayre, WG. (1993). The oxidation of alkanes in a simulated cloud. ACS National Meeting, Denver, CO.
- Sayre, WG. (2003). Kinetics of ozone decomposition. AWMA International Meeting, Orlando, FL.
- Sayre, WG (2003). An empirical description for the formation of ozone in the atmosphere. AWMA International Meeting, Orlando, FL.

CONSULTING

- Consulting services were provided to various industries and to the World Health Organization.
- Wheelabrator-Frye, Pittsburgh, Pennsylvania (1974-76) Improved electrostatic precipitator performance through design analysis, modification, and performance evaluation.
- World Health Organization (1976). Taught a short course on control of gaseous air pollutants for the state of Rio de Janeiro, Brazil.
- Apollo Technologies, Newark, New Jersey (1977). Evaluated the thermal byproducts of combustion additives in coal fired boilers.

- United McGill, Columbus, OH (1980). Tested thermodynamic calculations for the dry scrubbing of sulfur dioxide.
- Penn-Electric, GPU, Johnstown, Pennsylvania (summers, 1987, 1988). Acid rain monitoring.

AREAS OF RESEARCH INTEREST

- Analytical chemistry of environmental samples
- Instrument design
- Earthquake events and barometric pressure