



## CURRICULUM VITAE



**KARL SCHÜGERL**, Prof. em. Dr.Dr.h.c.

**Birthdate:** June 22, 1927

**Education:** Habilitation                      University Hannover, 1964  
Ph.D.    University Hannover, 1959  
M.S. in Chem. Eng.                      Technical University  
Budapest, 1949

### Professional experience:

- 1982-1986    Head of Department of Biochemical Engineering of the GBF (Central Research Institute of Biotechnology of Germany), Braunschweig
- 1974            Full Professor, Chairman and Head of Institute for Technical Chemistry of Technical University of Berlin, West-Berlin
- 1969-1995    University Hannover, Professor, Chairman and Head, Institute for Technical Chemistry
- 1969            Full Professor of Chemical Engineering at the University of Liège, Belgium
- 1966-1969    Technical University of Braunschweig, Associate Professor
- 1966            Associate Professor of Chemical Engineering at the New York University, USA
- 1964-1966    Dozent at the Technical University Hannover
- 1962-1964    Technical University of Hannover, Research Associate
- 1960-1962    Princeton University, Chemical and Mechanical Engineering Department, Research Associate
- 1959-1960    New York University, Chemical Engineering Department, Research Associate
- 1956-1957    Riedel de Haen, Seelze, Research Engineer
- 1955-1956    Construction Company for the Chemical Industry, Budapest  
Engineer for chemical reactor construction
- 1952-1956    Research Institute for Organic Chemical Industry, Budapest  
Engineer for research and development
- 1949-1952    Technical University of Budapest, Institute for Organic Chemistry, Research Associate

### Special Honors:

#### Member of the:

- Hungarian Academy of Sciences, 1995  
New York Academy of Sciences 1993  
Brunswick Scientific Society, 1990  
Advisory Board of the Fraunhofer Institute of Interfacial and Bioprocess Engineering, Stuttgart (1980-1995)  
Organizing Committee of several national and international scientific congresses in the field of biotechnology and chemical process analytics.

**Doctor honoris causa (Dr.h.c.)** of Technical University Budapest, 1991

**Computing and Control Division Premium** of the Institution of Electrical Engineers, England, 1985/86



**Chairman of the:**

European Federation of Biotechnology Working Party "Measuring and Control in Biotechnology" (1985-1995)  
DECHEMA-Working Party "Measuring Modelling and Control in Biotechnology" (1983-1995)  
Sherman Fairchild Distinguished Scholar at the California Institute of Technology, Pasadena, 1993

**Editorial Board of:**

Chemie-Ingenieur Technik (1985-1995)  
Chemical Engineering and Technology (1985-1995)  
Advances in Biochemical Engineering/Biotechnology  
Biotechnology Monographs (1985-1990)

**Editorial Advisory Board:**

Appl. Microbiology and Biotechnology  
Journal of Biotechnology (1985-1995)  
Analytical Chemical Acta  
BioEngineering (1980-1990)

**Editor:**

Technical Membranes in Biotechnology, VCH, (German), 1986  
Physico-chemical Fundamentals of Downstream Processing, VCH (German) 1984  
Microbial Protein Production, VCH (German), 1980  
Measuring Modelling and Control in the Biotechnology in "Biotechnology, a Comprehensive Treatment in several volumes" 2nd Edition. Vol. 4 (1991)  
Analytical Methods in the Biotechnology, VCH (German) 1989  
Relation between Morphology and Process Performance. Springer Verlag. 1998  
Influence of Stress on Cell Growth and Product formation, Springer Verlag, 2000  
Bioreaction Engineering. Modeling and Control, Springer Verlag, 2000

**Co-Editor of** Journal of Biochemical Engineering

**Books:**

Transport Processes in Packed Columns (Hungarian) 1954  
Bioreaktionstechnik, Band 1 Salle & Sauerländer, 1985  
Bioreaction Engineering, Vol. 1 John Wiley & Sons, 1987  
Bioreaktionstechnik, Band 2, Salle & Sauerländer, 1991  
Bioreaction Engineering, Vol. 2, John Wiley & Sons, 1991  
Solvent Extraction in Biotechnology, Springer Verlag, 1994  
Bioreaction Engineering, Vol. 3, John Wiley & Sons, 1997  
Bioreaktionstechnik, Prozeßüberwachung, Birkhäuser Verlag, 1997

**Publications:** 928 scientific publications and three patents

Major Lectureships in several national and international congresses

**Research Interests:**

Chemical reaction engineering (high temperature processes in fluidized beds and rotary kilns)  
Biochemical reaction engineering (bioreactor and bioprocess engineering)  
Separation processes (hydrometallurgy, environmental engineering, downstream processes)  
Measuring and control in biotechnology (by means of on-line and off-line monitoring of medium components with HPLC, FIA, MS, GC and biosensors)