A. CURRICULUM VITAE

Karl Schügerl, Prof. em. Dr.Dr.h.c.

Birthdate: June 22, 1927

Education:

Habilitation (permission for teaching)	University Hannover, 1964
Ph.D	University Hannover, 1959
M.S. in Chemical Engineering	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	Offer of an appointment as 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	Offer of an appointment as Full Professor of Chemical Engineering at the University of Liège, Belgium. Appointment was not accepted.
1966-1969	Technical University of Braunschweig, Associate Professor
1966	Offer of an appointment as Associate Professor of Chemical Engineering at the New York University, New York, USA. Appointment was not accepted.
1964-1966	Dozent (Reader) 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
1957-1959	Research Fellow of tFoundation of he German Chemical Industrial
1957-1960	Association
1956-1957	Riedel de Haen, Seelze Research Engineer
1955-1956	Construction Company for the Chemical Industry, Budapest Engineer for chemical reactor construction
1952-1955	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
Member of the New York Academy of Sciences 1993
Doctor honoris causa (Dr.h.c.) of Technical University Budapest, 1991
Computing and Control Division Premium 1985/86 of the Institution of Electrical Engineers, England
Full Member of the Brunswick Scientific Society, 1990
Sherman Fairchild Distinguished Scholar at the California Institute of Technology, Pasadena, 1993
DECHEMA Medal 1997
Member of the Advisory Board of the Fraunhofer Institute of Interfacial and Bioprocess Engineering, Stuttgart (1980-1995)
Chairman of the European Federation of Biotechnology Working Party "Measuring and Control in Biotechnology" (1985-1995)
Chairman of DECHEMA-Working Party "Measuring Modelling and Control in Biotechnology" (1983-1995)
Chairman of the National Congress: “Measuring, Modelling and control in the Biotechnolgy. 1986. Tutzing
Chairman of the national Congress. “Measuring, Modelling and Control in the Biotechnology”. 1991. Lahnstein.
Co-Chaiman of the international Congress: Computer Application in the Biotechnology. CAB 6, 1996. (with A. Munack), Garmisch-Partenkirchen
Member of The Organizing Committee of several national and international scientific congresses in the field of biotechnology and chemical process analytics.

Editor and Advisory Board Member of Scientific Periodicals:

Editorial Board of Chemie-Ingenieur Technik (1985-1995)
Editorial Board of Chemical Engineering and Technology (1985-1995)
Co-Editor of Journal of Biochemical Engineering 1984-1995
Editorial Board: Advances in Biochemical Engineering/Biotechnology since 1977
Editorial Board: Biotechnology Monographs (1985-1990)
Editorial Advisory Board: Appl. Microbiology and Biotechnology 1981-1995
Editorial Advisory Board: Journal of Biotechnology (1980-1995)
Editorial Advisory Board: Analytical Chemical Acta 1982-1995
Editorial Advisory Board: BioEngineering (1980-1990)
Editorial Advisory Board: Process Biochemistry (1985-2000
Editorial Advisory Board: Biotechnology Advances (1985-1995)
Editorial Advisory Board: Biotechnology. Comprehensive Treatment in several volumes (Eds. H.-J- Rehm, G. Reed, A. Pühler, P. Stadler) (1990-2001)
Editorial Advisory Board: Encyclopedia of Bioprocess Technology, Fermentation, Biocatalysis and Bioseparation. Vol. 1-5. (M.C. Flickinger, S.W. Drews, eds.)
Editorial Advisory Board of Engineering in Life Sciences. Sibnce 2000

Editor of Books

Editor: Technical Membranes in Biotechnology, VCH, (German) (with M.R. Kula and C. Wandrey) 1986
Editor: Physico-chemical Fundamentals of Downstream Processing, VCH(German) (with M.R. Kula and U. Onken) 1984
Editor: Microbial Protein Production, VCH (German) (with P. Präve and H. Zucker) 1980
Editor: Measuring Modelling and Control in the Biotechnology in "Biotechnology, a Comprehensive Treatment in several volumes" 2nd Edition. Vol. 4, Gen Editors. H.J. Rehm and G. Reed, VCH(1991)
Editor: Analytical Methods in Biotechnology, Viehweg (German), 1989
Editor: Computer Application in Biotechnology. (with A. Munack), Elsevier, Amsterdam 1995
Editor: Relation between Morphology and Process Performance. Springer Verlag. 1998
Editor: Influence of Stress on Cell Growth and Product formation (with G. Kretzmer), Springer Verlag, 2000
Editor: Bioreaction Engineering. Modeling and Control (with K.-H. Bellgardt), Springer Verlag, 2000

Major Lectureships:

Plenary lectures, Key note lectures and lectures in several national and international congresses.

Books: Transport Processes in Packed Columns (with I. Paszthory and M Bakos) (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 GmbH, 1997

Publications:

910 scientific publications and three patents

Research Interests:

Investigations of elemental processes I n homogeneous and heterogeneous reactions by means of molecular beams and scattering chambers and ccrossed molecular beams

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)