

cfaed Seminar Series

DATE: Friday, August 12th 2016
TIME: 10:00 am – 11:30 am
LOC: CHE91 Chemie-Neubau
Bergstraße 66, 01069 Dresden

GUEST SPEAKER: **Prof. Josef Michl**
University of Colorado Boulder, USA



TITLE: "Direct Alkylation of Gold Surfaces with Solutions of Organometallics"

ABSTRACT:

Upon treatment with dilute solutions of alkylstannanes and other main group organometallics under ambient conditions, alkyl groups longer than methyl are transferred to gold surface and form a disordered self-limiting monolayer. In most but not all cases, the metal is deposited as well, in elemental form or as an oxide. Spectral and other properties of the monolayer as well as the kinetics of its formation will be discussed and a possible mechanism for the surface alkylation proposed.

BIOGRAPHY:

Professor Josef Michl teaches in the Department of Chemistry and Biochemistry at the University of Colorado at Boulder. He is a native of Czechoslovakia, studied at the Charles University in Prague with V. Horák and P. Zuman, and the Czechoslovak Academy of Sciences with R. Zahradník, and obtained his Ph.D. in 1965. His post-doctoral experience was in chemistry with R.S. Becker at the University of Houston, M.J.S. Dewar at the University of Texas, A.C. Albrecht at Cornell University, and J. Linderberg at Aarhus University, and in physics with F.E. Harris at the University of Utah. He joined the faculty in the Chemistry Department at Utah in 1970 and was chairman of the department in 1979-84. He left Utah in 1986 and after a brief stint as Collie-Welch Regents Chair Professor at the University of Texas at Austin moved to his present position in Boulder. He has been a Sloan Fellow, a Guggenheim Fellow, and a Humboldt Senior U.S. Scientist awardee. He has held numerous visiting positions and named lectureships. He has received honorary degrees from Georgetown University in Washington, DC, and from University of Pardubice in the Czech Republic.

He received the Utah Section award and the Cope Scholar award from the ACS, the Schrödinger medal from the World Association of Theoretical Organic Chemists, the 1994 award from the Inter-American Photochemical Society, the Heyrovsky Gold Medal from the Czech Academy of Sciences, and the Gold Medal of the Charles University in Prague, Czech Republic, and I-APS George S. Hammond Award. He is a member of the U.S. National Academy of Sciences, of the International Academy of Quantum Molecular Science, a WATOC Fellow, and an honorary member of the Czech Learned Society.

Professor Michl was the editor of Chemical Reviews for thirty years, and is currently an Editorial Board Member of Accounts of Chemical Research, Bulletin of the Chemical Society of Japan, Chemistry - a European Journal, Collection of Czechoslovak Chemical Communications, and International Journal of Quantum Chemistry. He had a long association with IUPAC, where he chaired the Photochemistry Commission. He is President of the International Academy of Quantum Molecular Science. Professor Michl has co-authored five books on photochemistry and polarization spectroscopy, and over six hundred and fifty scientific papers in the areas of organic, inorganic, theoretical, and physical chemistry. His current areas of interest are modular chemistry, highly reactive molecules, molecular electronic structure, silicon and boron chemistry, and photochemistry.