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## Awards and Prizes

### Alois Fürstner Wins Thieme-IUPAC Prize in Synthetic Organic Chemistry

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Prof. Dr. Alois Fürstner, Director of the Max-Planck-Institut für Kohlenforschung, Mülheim, Germany, has won the 5<sup>th</sup> Thieme-IUPAC Prize in Synthetic Organic Chemistry (2000). The Prize will be presented to him at an Award Lecture on 3 July 2000 at the 13<sup>th</sup> International Conference on Organic Synthesis (ICOS-13) in Warsaw, Poland.

The Thieme-IUPAC Prize, consisting of DM 10 000, is awarded every two years on the occasion of IUPAC's International Conference on Organic Synthesis (ICOS) to a scientist under 40 years of age, whose research has had a major impact on the field of synthetic organic chemistry. The Prize is sponsored jointly by Georg Thieme Verlag, IUPAC, and the Editors of *Synthesis*, *Synlett*, *Science of Synthesis*, and *Houben-Weyl*.

Prof. Dr. Fürstner was born on 23 July 1962 in Austria. He completed his Ph.D. in carbohydrate chemistry under the direction of H. Weidmann at the Technical University Graz, Austria, in 1987. After working as a postdoctoral fellow with W. Oppolzer on metallo-ene reactions at the University of Geneva, Switzerland (1990–1991), he returned to Graz to obtain his Habilitation on metal activation. In 1993, he joined the Max-Planck-Institut für Kohlenforschung, Mülheim, Germany, as head of a research group. Since 1998, he has held the position of Director at the Institute and is an affiliated professor with the University of Dortmund.

Fürstner's work displays a fruitful interplay of basic research in organometallic chemistry and catalysis, and applications to natural product chemistry and the total synthesis of biologically relevant compounds. Prof. Dr. Fürstner was one of the first chemists to recognize the enormous potential of metathesis for the synthesis of macrocycles. With considerable insight into this reaction, he has spelled out rules on how to implement metathesis-based macrocycle formations in multistep syntheses, and has demonstrated the validity of his concepts by elegant applications to natural product total synthesis. Fürstner's syntheses of the macrolide (–)-gloeosporone, the terpene dactyol, the tripyrrole pigment nonylprodigiosin, and the complex glycolipids tricolorin A and G are highlights in this field.

Fürstner's conceptually new approaches to the synthesis of olfactory macrocycles (e.g., Exaltolide) indicate the enormous potential of olefin metathe-

sis for fine chemical production. Additionally, he has opened up promising new perspectives for preparative chemistry by introducing the first examples of ring-closing alkyne metathesis, as well as a mechanistically unprecedented enyne

metathesis simply catalyzed by platinum(II) chloride. The latter transformation has already been employed in an efficient total synthesis of immunosuppressive alkaloids of the prodigiosin series.

Another major area of Fürstner's work concerns metal-induced C–C bond formations. He has developed a versatile reductive indole synthesis and has pioneered a new branch of catalysis research by discovering McMurry-type reactions catalytic in titanium as well as Nozaki-Hiyama-Kishi reactions catalytic in chromium.

Prof. Dr. Fürstner has achieved worldwide recognition for his highly innovative and creative independent research. He has received several awards, including the prestigious Leibniz Award (1999) from the German Science Foundation.



### Milton T. W. Hearn Wins H. G. Smith Memorial Medal

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Prof. Milton T. W. Hearn, Chairman and Titular Member of IUPAC's Commission on Biotechnology (III.4) and Titular Member of IUPAC's Organic and Biomolecular Chemistry Division Committee (III.0), has won the coveted H. G. Smith Memorial Medal of the Royal Australian Chemical Institute (RACI) for 1999. Prof. Hearn has served as Professor of Biochemistry, Monash University, Clayton, Victoria, Australia since 1986.

The H. G. Smith Memorial Medal is awarded annually "to the member of RACI who has contributed most to the development of some branch of chemical science". Prof. Hearn was cited for contributing "to the current, advanced state of application of



chemical and biophysical principles and strategies that underpin the chromatographic and electro-phoretic sciences in biochemical analysis, including advanced procedures and technologies for the separation of peptides, proteins, and polynucleotides of commercial importance

in the chemical, pharmaceutical, and biotechnological industries". His studies on the structure and function of bioactive peptides, protein hormones, and growth factors involved in normal and disease state processes, including biomolecules involved in the regulation of reproductive function and tumorigenesis, have also attracted much international attention.

### Lester A. Mitscher Wins American Chemical Society Division of Medicinal Chemistry Award

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Prof. Lester A. Mitscher, Titular Member of IUPAC's Commission on Training and Development (VI.M.2) of the Medicinal Chemistry Section (VI.M), received the 11<sup>th</sup> ACS Division of Medicinal Chemistry Award at the 27<sup>th</sup> National Medicinal Chemistry Symposium held 13–17 June 2000 in Kansas City, Missouri, USA. The award was established by ACS in 1979 "to recognize outstanding achievement in

the sciences that contribute to the field of medicinal chemistry".

After a distinguished career at Lederle Laboratories as a group leader in antibiotics, Prof. Mitscher joined the faculty of Ohio State University, where he served as professor of natural products chemistry in the College of Pharmacy. A faculty member at the University of Kansas since 1975, Prof. Mitscher has been chairman of the department of medicinal chemistry for 16 years. Recently retired as editor of *Medicinal Research Reviews*, Prof. Mitscher has had affiliations with the editorial boards of 13 journals, has coauthored or edited 6 books, and has authored almost 250 scientific manuscripts.

Prof. Mitscher's work in natural product chemistry, ranging from development and popularization of circular dichroism for structural elucidation to isolation of novel entities using bioassay-guided fractionation, has gained him great renown. His recent research has focused on identifying and developing new antimicrobial agents, such as those based on tetracycline and quinolone. His isolation of novel antioxidants from green tea has attracted considerable interest among colleagues and in the mass media.

Prof. Mitscher won the Ernest H. Volwiler Award in 1985 and the Smisson Bristol-Myers Squibb Award of the ACS Division of Medicinal Chemistry in 1989. In 1997, he was named Distinguished Alumnus of Wayne State University, from which he received a B.S. degree in pharmacy and a Ph.D. degree in the laboratory of Prof. Carl Djerassi.

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## New Books and Publications

*Macromolecular Symposia, Vol. 147: Mechanical Behavior of Polymeric Materials. Symposium Editor, Jaroslav Kahovec; Editor-in-Chief, Hartwig Hocker; Editors, W. Guth, B. Jung, I. Meisel, and S. Spiegel. Published by WILEY-VCH, December 1999, pp. 1–267. ISBN 3-527-29907-6 (ISSN 1022-1360).*

Volume 147 of *Macromolecular Symposia* contains main and special lectures delivered at the 18<sup>th</sup> Discussion Conference, organized as the 56<sup>th</sup> meeting in the series of Prague Meetings on Macromolecules (PMM), held in Prague, Czech Republic 20–23 July 1998, as usual under the auspices of IUPAC at the Institute of Macromolecular Chemistry, Academy of Sciences of the Czech Republic (see symposium report by Prof. Dr. G. H. Michler published in *Chemistry International* in July 1999, Vol. 21, No. 4, pp.

110–111). The topic of the meeting and of this resultant volume, mechanical behavior of polymeric materials, is an area that has an interesting long history and tradition. From the very beginning, this field has been a meeting place of experts from polymer synthesis, processing, and applications. Indeed, mechanical characteristics are decisive for reliable functions of polymers in virtually all application fields—starting from materials for industrial structure parts through medical applications up to contemporary media for data storage. In all these fields, mechanical failure can cause extensive damage and heavy losses. Consequently, mechanical parameters serve for optimization of technological processes, quality control, and right design of dependable parts.

Mechanical behavior of polymeric materials depends on their structure. The structure, in turn, must