SCOTT E. DENMARK

Website: http://faculty.scs.illinois.edu/denmark/

Birthdate: June 17, 1953; Lynbrook, New York, USA

Education: S. B. Massachusetts Institute of Technology, 1975
D.Sc.Tech., Eidgenossische Technische Hochschule, 1980 (with A. Eschenmoser)

Professional Experience:
Assistant Professor of Chemistry, University of Illinois, 1980-86
Associate Professor of Chemistry, University of Illinois, 1986-87
Professor of Chemistry, University of Illinois, 1987-1991
Reynold C. Fuson Professor of Chemistry, University of Illinois, 1991-present

Honors:
Eli Lilly Research Grantee, 1983
Beckman Endowment Research Award, 1983
University of Illinois Center for Advanced Study, Beckman Fellow, Spring 1985
A. P. Sloan Foundation Fellow, 1985-1987
NSF Presidential Young Investigator Award, 1985-1990
Procter and Gamble University Exploratory Research Program Award, 1986-1989
University Scholar, University of Illinois, 1986-1989
School of Chemical Sciences Teaching Award, University of Illinois, 1986
Stuart Pharmaceuticals Award in Chemistry, ICI Americas, 1987
A. C. Cope Scholar Award, American Chemical Society, 1989
Alexander Von Humboldt Senior Scientist Award, 1990
Fellow, American Association for the Advancement of Science, 1990
Reynold C. Fuson Professor of Chemistry, 1991-present
Pedler Medal (Royal Society of Chemistry), 2002-2003
ACS Award for Creative Work in Synthetic Organic Chemistry, 2003
Yamada-Koga Prize (Japan Research Foundation for Optically Active Compounds), 2006
Fellow, Royal Society of Chemistry, 2006
Prelog Medal (ETH-Zürich, Switzerland), 2007
Robert Robinson Medal and Lectureship (Royal Society of Chemistry), 2008
Herbert C. Brown Award for Creative Research in Synthetic Methods (ACS), 2009
Fellow, American Chemical Society, 2009 (inaugural year)
ISHC Senior Award in Heterocyclic Chemistry, 2011
Frederic Stanley Kipping Award in Silicon Chemistry (ACS), 2014
Harry and Carol Mosher Award of the Santa Clara Section of the ACS, 2014
American Academy of Arts and Sciences, Member, 2017
National Academy of Sciences, Member, 2018
The *Journal of Organic Chemistry* Outstanding Publication of the Year Award Lectureship, 2019
EROS 2019 Best Reagent of the Year Award, 2019
Ryoji Noyori Prize (Society of Synthetic Organic Chemistry, Japan), 2019
Paracelsus Prize (Swiss Chemical Society), 2020

Visiting Professorships/Distinguished Lectureships
3me Cycle in Organic Chemistry, Geneva, Switzerland, May 1987
Visiting Professor Université Catholique de Louvain, Louvain-la-Neuve, Belgium, November 1992
Visiting Professor Université Paris-Sud, Paris-Orsay, France, May-June 1994
Chambers Lecturer, Rochester University, Rochester, New York, December 1994
Organic Syntheses Lecturer, University of California, Irvine, Irvine, California, March 1995
UCI/Allergan Visiting Professor University of California, Irvine, Irvine, California, March 1995

Merck-Frosst Lecturer, Ottawa, Canada, November 1995
Novartis Lecturer, Novartis Corp. Basel, Switzerland, May 1998
SFC/Rhone-Poulenc Lecturer, Paris, France, December 1998
Bristol-Myers-Squibb Lecturer in Organic Synthesis, Princeton, New Jersey, April 2000
Merck-Frosst Lecturer, Queens University, Kingston Ontario, Canada, April 2001
Bristol-Myers-Squibb Lecturer in Organic Synthesis, Columbia New York, May 2001
Pedler Lectures (Royal Society of Chemistry), 2002-2003
Bristol-Myers-Squibb Lecturer in Organic Synthesis, Harvard, Massachusetts, March 2003
Merck-Frosst Lecturer, Montreal, Canada, September 2003
Gassman Lectures, University of Minnesota, November 2003
Dains Lectureship, University of Kansas, Lawrence, Kansas, March 2004
Ireland Lectureship, University of Virginia, Charlottesville, Virginia, April 2004
3me Cycle in Organic Chemistry, Fribourg, Switzerland, October 2004
Opplozer Lecturer, University of Geneva, Geneva, Switzerland, October 18, 2004
Abbott Lecturer in Organic Synthesis, UC Berkeley, California, May 2005
Astra Zeneca Excellence in Organic Chemistry Distinguished Lecturer, Wilmington, Delaware, October 2005
Distinguished Lecturer, Eli Lilly Grantee Symposium, Indianapolis, Indiana, March 11, 2006
Pfizer Synthetic Organic Lectureship, University of Guelph-Waterloo, Ontario, Canada, May 17, 2006
Merck Lectureship, University of Calgary, Calgary, Canada, October 20, 2006
Frontiers in Chemical Research Lectureship, Texas A&M University, College Station, Texas, November 13-15, 2006
Felix Serratosa Conferences, University of Barcelona, Barcelona, Spain, January 15-16, 2007
Eli Lilly Lectureship, Yale University, New Haven, Connecticut, April 4, 2007
Ingersoll Lectureship, Vanderbilt University, Nashville, Tennessee, April 23, 2007
Dauben Lectureship, University of Washington, Seattle, Washington, April 30-May 1, 2007
Wyeth-Ayerst Lectureship, Princeton University, Princeton, New Jersey, December 7, 2007
Pfizer Lectureship, York University, York, Canada, May 8, 2008
Abbott Lecturer in Organic Synthesis, MIT, Cambridge, Massachusetts, May 22, 2008
BMS Lecturer in Organic Synthesis, Scripps Research Institute, La Jolla, California, February 13, 2009
Lemieux Lecturer, University of Ottawa, Ottawa, Canada, March 13, 2009
Novartis Lecturer, Boston College, Waltham, Massachusetts, September 16, 2009
Karl Ziegler Lectureship, Max Planck Institute, Mülheim, Germany, May 6, 2010
Murtiashaw Lecturer, University of South Carolina, Columbia, South Carolina, March 21, 2011
McRae Lectureship in Organic Chemistry, Queen's University, Kingston, Ontario, Canada, April 1, 2011
Backer Lecture in Organic Chemistry, University of Groningen, The Netherlands, September 12, 2011
Syngenta-Ecole Polytechnique Lectureship, Palisseau, France, October 17, 2011
Novartis Lectureship in Organic Chemistry, Northwestern University, Evanston, Illinois, November 17, 2011
Debye Lectures, Cornell University, Ithaca, New York, October 31-November 1, 2011
16th Reed Lecture, Rensselaer Polytechnic Institute, Troy, New York, September 25, 2012
Givaudan-Karrer Lectureship, University of Zürich, Zürich, Switzerland, May 6-17, 2013
Oxford Synthesis Symposium, Oxford, UK, July 22-25, 2013
Richard T. Arnold Lectureship, SIU Carbondale, Carbondale, Illinois, October 11, 2013
Connecticut Organic Chemistry Symposium, New Haven, Connecticut, March 21 2014
7th European Silicon Days, Berlin, Germany, August 3-8, 2014
Harry and Carol Mosher Award Symposium, Santa Clara, California, January 29, 2015
Pfizer Lectureship, Harvard University, Cambridge, Massachusetts, February 9, 2015
Organic Syntheses Lectureship, Duke University, Chapel Hill, North Carolina, April 2, 2015
Richard F. Heck Lectureship, University of Delaware, Newark, DE, April 20, 2016
Zen-ichi Yoshida Lectureship, University of Kyoto, Kyoto, Japan, May 20-21, 2016

Vertex-UCI Lectureship, University of California-Irvine, Irvine, CA, February 9, 2017
Stauffer Lectureship, Stanford University, Stanford, CA, February 13-15, 2018
Eschenmoser Lecturer, ETH-Zürich, Zürich, Switzerland, March 19, 2018
Heathcock Lecturer, University of California-Berkeley, Berkeley, CA, April 24, 2018
Pfizer Lecturer, MIT, Cambridge, MA, May 3, 2018
Sandin Lectureship, Univeristy of Alberta, Edmonton, Alberta, Canada, May 22-24, 2018
Eisch Lectureship in Organic Chemistry, SUNY-Binghamton, Binghamton, NY, October 12, 2018
J. Org. Chem. Outstanding Paper of the Year Award Lectureship 2019, ACS National Meeting, San Diego, CA, August 25, 2019
Bohlmann Lectureship, Technical University of Berlin, Berlin, Germany, 2021

Instructional Experience

Undergraduate:

Organic Chemistry:

1st Semester: Fall 1984, 1986, 1987
2nd Semester: Spring 1981, 1991
3rd Semester: Fall 1988

Organic Synthesis Laboratory:

1st Semester: Spring 1991, 1996
Fall 1992, 1994, 1995, 1996, 2000
2nd Semester: Fall 1980, 1981, 1982, 1983, 2001, 2009
Spring 1988, 1995, 1998, 1999, 2000, 2001, 2002, 2003, 2008

Laboratory Course Development:

Spring 1982, 1983, 1996

Graduate:

Advanced Organic Chemistry: Synthesis
Spring 1982, 1983, 1986, 1989, 1992, 1993, 1994, 2002, 2003, 2004
Fall 2009, 2010, 2011, 2012, 2013, 2016, 2017

Advanced Organic Chemistry: Stereochemistry
Spring 1987

Advanced Organic Chemistry: Asymmetric Synthesis and Catalysis
Fall 1997, 1999
Spring 2005, 2006, 2007, 2008, 2009, 2011, 2012, 2019

Organic Chemistry Seminar
Fall 1985, 1989, 1993, 2004, 2006, 2008, 2014, 2015, 2019
Spring 1997, 2014

Structure and Spectroscopy
Spring 2019, 2020

External Short Courses:

University of Minnesota, Spring 1986
Université Catholique de Louvain, Louvain-la-Neuve, Belgium, November 1992
Upjohn Company, October 1993
University of California, Irvine, Spring 1995
3me Cycle in Organic Chemistry, Champéry, Switzerland, Fall 1996
ACS Satellite Seminar "Essentials of Organic Chemistry," Washington, DC, October 15-16, 1997
Summer School in Organic Synthesis, Gargnano, Italy, June 15-19, 1998
Ischia Advanced School of Organic Chemistry, University of Napoli, Italy, September 16-21, 2006
Givaudan-Karrer Lectureship, University of Zürich, Zürich, Switzerland, May 6-17, 2013

Mentoring

Thesis Supervision

B.S. Theses:

conferred – 17
current - 1

Master Theses:

conferred - 25
current - 0

Ph.D. Theses:

conferred - 75
current -12

Postdoctoral Research Associates

past - 99
current - 5

Scientific Visitors

past - 20
current - 0

Administrative Activities

Undergraduate Awards Committee (1981-1990)
Graduate Fellowship Committee (1982-1988)
Teaching Evaluations Committee (1985-1990)
Dean of Liberal Arts and Science Search Committee (1988)
Committee on Staff, Department of Chemistry (1988-1995, 2000-present)
Search Committee, Dean LAS (1988-1989)
Faculty Advisor, Molecular Spectroscopy Laboratory (1988-1995)
Search Committee, Head of Chemistry Department (1989-1990)
Service Facilities Committee, (1990-1996)
Search Committee, Director, School of Chemical Sciences (1993-1994)
NMR Advisory Committee (1995-2003)
Ad Hoc Committee on Noyes Lab Space Utilization (Chair, 1999-2003)
Staff Committee (2000-2004)
Awards Committee (Chair, 2003-present)
Service Facilities Committee (Chair, 2004-2014)
Department of Chemistry Advisory Committee (2007-2009)
Faculty Advisor to the NMR Laboratory (2010-2012)
Budget and Operations Officer, Organic Chemistry (1995-2000), (2010-2020)
Departmental Safety Committee (2012-2016)
Departmental Development Committee (2017-present)
Department of Chemistry Advisory Committee (2020-present)

Other Activities

Organic Chemistry Seminar Chairman (1982-1986, 1995)
Organic Chemistry Teaching Assignments (1982-1988)
Ad Hoc Committee for the Selection of a 200 MHz NMR Spectrometer (1983)
Reorganization of Training and Check-out Procedures for Routine ^{1}H NMR Spectrometers
Ad Hoc Committee for the Selection of a 300 MHz NMR Spectrometer (1985)
Instructional NMR Oversight Committee (1995-1997)
Ad Hoc Committee on Space
Ad Hoc Committee Planning the UIUC Sesquicentennial

Professional Activities

NSF Workshop on Synthetic Organic and Natural Products Chemistry, Co-Chairman (1987-1989)
Executive Committee, Organic Division, American Chemical Society (1989-1992)
Cope Scholar Award Canvassing Committee (1992-1994)
AAAS Chemistry Section, Electorate Nominating Committee (1998-2001)
Gordon Research Conference on Heterocyclic Compounds, Vice Chair, 2000; Chair, 2001
ACS Award Selection Committees (assignment confidential)
Gordon Research Conference on Stereochemistry, Vice Chair, 2014; Chair, 2016
New York Academy of Sciences, Blavatnik Award Selection Committee (2014-present)
MIT Visiting Committee, Member, 2014-2020
ACS Gibbs Medal Jury (2019-2022)
American Academy of Arts and Sciences, I:3 Section Membership Panel (2019-present)
Ryoji Noyori Prize Selection Committee (2020-2022)

Professional Societies

American Chemical Society (Fellow)
Swiss Chemical Society
Royal Society of Chemistry, Fellow (FRSC)
International Society for Heterocyclic Chemistry
American Association for the Advancement of Science (Fellow)
American Academy of Arts and Sciences (Member)
National Academy of Sciences (Member)

Editorial Activities

Past

International Advisory Board, *Perkin Transactions 1* (1992-1994)
Editorial Board, *Organic Reactions* (1994-2003)
Editor, *Topics in Stereochemistry* (1995-2007)
Editorial Board, *Encyclopedia of Reagents for Organic Synthesis*
Editorial Advisory Board, *Journal of Organic Chemistry* (1995- 2000)
Editorial Advisory Board, *Accounts of Chemical Research* (1997- 2000)
Editorial Advisory Board, *Progress in Heterocyclic Chemistry* (1997-2001)
Associate Editor, *Organic Letters* (1998-2004)
Guest Editor Thematic Issue "Catalytic Asymmetric Synthesis" in *Accounts Chem. Res.* **2000**, *38*(6).
Editorial Board, *Organic Syntheses, Inc.* (2000-2008)
Editorial Advisory Board, *Chemical Communications* (2006-2012)
Editor in Chief and President, *Organic Reactions* (2008-2018)
Editorial Advisory Board, *Chemical Reviews* (2010-2018)

Current

Board of Directors, *Organic Reactions* (2004-present)
Editorial Advisory Board, *Organic Letters* (2005-present)
Board of Consulting Editors, *Tetrahedron* (2008-present)
Editorial Advisory Board, *Journal of Organic Chemistry* (2011-present)
Board of Directors, *Organic Syntheses, Inc.* (2017-present)
Editorial Advisory Board, *J. Am. Chem. Soc.* (2021-present)

Consultantships

Past

Pharmacia (formerly Upjohn), Kalamazoo, Michigan, 1983-2003
Dow Chemical Company, Midland Michigan, 1986-1989
LIGAND Pharmaceuticals, La Jolla, California, 1993-1998
Pfizer, Ann Arbor, Michigan; St. Louis, Missouri, 2003-2007
Milliken Chemical, Spartanburg, South Carolina, 2006-2011

GlaxoSmithKline, Raleigh-Durham, North Carolina, 2009-2010
DART Neuroscience, La Jolla, California, 2011-2017
Boehringer-Ingelheim Pharmaceuticals, Ridgefield, Connecticut, 2000-2018
Gilead, Foster City, California, 2017-2018

Current

Janssen Pharmaceutical Research Institute, San Diego, California, 2001-present
Janssen Pharmaceutical Research Institute, Springhouse, Pennsylvania, 2016-present
Janssen Pharmaceutical Research Institute, Beerse, Belgium, 2014-present
Merck Research Laboratories, Rahway, New Jersey, 2004-2008, 2014-present
Merck Research Laboratories, West Point, Pennsylvania, 2016-present
Merck Research Laboratories, Kenilworth, NJ, 2016-present
Merck Research Laboratories, Boston, MA, 2016-present
Merck Research Laboratories, South San Francisco, 2018-present
Genentech, San Francisco, California, 2008-present
PTC Therapeutics, South Plainfield, New Jersey, 2008-present
Fibrogen, San Francisco, California, 2014-present
Hoffmann La Roche, Basel, Switzerland, 2017-present
Monsanto Company, St. Louis, MO, 2018-present

Scientific Advisory Boards

LIGAND Pharmaceuticals, La Jolla, California, 1996-1998
The Pharmacia and Upjohn Company, Kalamazoo, Michigan, 1998-1999

Publications

1. Synthetic Analogs of the Active Sites of Iron-Sulfur Proteins. XI. Synthesis and Properties of Complexes Containing the Fe_2S_2 Core and the Structures of Bis[*o*-xylyl-α,α'-dithiolato-μ-sulfido-ferrate(III)] and Bis[*p*-tolthiolato-μ-sulfido-ferrate(III)]Dianions (with J. J. Mayerle, B. V. DePamphilis, J. A. Ibers, and R. H. Holm) *J. Am. Chem. Soc.* **1975**, *97*, 1032-1045.

2. Synthesis of Cyclophanes Derived from 1-Amino-3,7-diakyl-4-methylnaphthalenes (with D. S. Kemp, M. E. Garst, R. W. Harper, D. D. Cox and D. Carlson) *J. Org. Chem.* **1979**, *44*, 4469-4473.

3. Facile Oxetane Formation in a Rigid Bicyclo[2.2.2]octane System, *J. Org. Chem.* **1981**, *46*, 3144-3147.

4. Silicon-Directed Nazarov Cyclization (with T. K. Jones) *J. Am. Chem. Soc.* **1982**, *104*, 2642-2645.

5. Carbanion-Accelerated Claisen Rearrangements (with M. A. Harmata) *J. Am. Chem. Soc.* **1982**, *104*, 4972-4974.

6. (*E*)-3-Trimethylsilyl)-2-propen-1-ol. An Improved Preparation (with T. K. Jones) *J. Org. Chem.* **1982**, *47*, 4595-4597.

7. On the Stereochemistry of Allylmetal-Aldehyde Condensations (with E. J. Weber) *Helv. Chim. Acta* **1983,** *66*, 1655-1660.

8. Silicon-Directed Nazarov Reactions II. Preparation and Cyclization of β-Silyl-substituted Divinyl Ketones (with T. K. Jones) *Helv. Chim. Acta* **1983,** *66*, 2377-2396.

9. Silicon-Directed Nazarov Reactions III. Stereochemical and Mechanistic Considerations (with T. K. Jones) *Helv. Chim. Acta* **1983**, *66*, 2397-2411.

10. Carbanion-Accelerated Claisen Rearrangements. 2. Studies on Internal Asymmetric Induction (with M. A. Harmata) *J. Org. Chem.* **1983**, *48*, 3369-3370.

11. A Vinylsilane Route to trans-7a-Methylhydrind-4-en-1,6-dione (with J. P. Germanas) *Tetrahedron Lett.* **1984**, *25*, 1231-1234.

12. α-Chloro Ketoximes as Precursors of Nitrosoalkenes: Preparation, Stereochemistry, and Conformation (with M. S. Dappen) *J. Org. Chem.* **1984**, *49*, 798-806.

13. Carbanion-Accelerated Claisen Rearrangements. 3. Vicinal Quaternary Centers (with M. A. Harmata) *Tetrahedron Lett.* **1984**, *25*, 1543-1546.

14. Stereochemistry of Allylmetal-Aldehyde Condensations. 2. Allylstannanes (with E. J. Weber) *J. Am. Chem. Soc.* **1984**, *106*, 7970-7971.

15. Intramolecular [4+2] Cycloadditions of Nitrosoalkenes with Olefins (with M. S. Dappen and J. A. Sternberg) *J. Org. Chem.* **1984**, *49*, 4741-4743.

16. Stereospecific Reduction of Propargyl Alcohols: (*E*)-3-Trimethylsilyl-2-propen-1-ol (with T. K. Jones) *Org. Synth.* **1985**, *64*, 182-188.

17. A General Method for the Preparation of γ-Substituted Cycloalkenals and Cycloheptenals (with T. K. Jones) *J. Org. Chem.* **1985**, *50*, 4037-4045.

18. Intramolecular [4+2] Cycloadditions of Nitroalkenes with Olefins (with M. S. Dappen and C. J. Cramer) *J. Am. Chem. Soc.* **1986**, *108*, 1306-1307.

19. Silicon-Directed Nazarov Cyclizations IV. Further Studies in Stereochemical Control (with K. L. Habermas, G. A. Hite and T. K. Jones) *Tetrahedron* **1986**, *42*, 2821-2829.

20. The Stereostructures of [1,1'-Bicyclohexyl]-2,2'-diones: A Reassignment (with C. J. Cramer and J. A. Sternberg) *Tetrahedron Lett*. **1986**, *27*, 3693-3696.

21. Intramolecular [4+2] Cycloadditions of (*Z*)- α,β-Unsaturated Aldehydes with Vinyl Sulfides and Ketene Dithioacetals (with J. A. Sternberg) *J. Am. Chem. Soc*. **1986**, *108*, 8277-8279.

22. Intermolecular [4+2]-Cycloadditions of Nitroalkenes with Cyclic Olefins. Transformations of Cyclic Nitronates (with C. J. Cramer and J. A. Sternberg) *Helv. Chim. Acta* **1986**, *69*, 1971-1989.

23. Diphenylmethylsilyl Ethers (DPMS): A Protecting Group for Alcohols (with R. P. Hammer, E. J. Weber and K. L. Habermas) *J. Org. Chem*. **1987**, *52*, 165-168.

24. Intramolecular [4+2]-Cycloadditions of Vinylnitrosonium Cations with Olefins (with C. J. Cramer and M. S. Dappen) *J. Org. Chem*. **1987**, *52*, 877-887.

25. Organocerium Additions to SAMP-Hydrazones: General Synthesis of Chiral Amines (with Th. Weber and D. W. Piotrowski) *J. Am. Chem. Soc*. **1987**, *109*, 2224-2225.

26. $SnCl_4(4\text{-}t\text{-}BuC_6H_4CHO)_2$. X-Ray Crystal Structure, Solution NMR, and Implications for Reactions at Complexed Carbonyls (with B. R. Henke and E. J. Weber) *J. Am. Chem. Soc*. **1987**, *109*, 2512-2514.

27. Studies on the Addition of Allyloxides to Sulfonylallenes. Preparation of Highly Substituted Allyl Vinyl Ethers for Carbanionic Claisen Rearrangements (with M. A. Harmata and K. S. White) *J. Org. Chem*. **1987**, *52*, 4031-4042.

28. An Ab Initio Study of the [1,2] Proton Transfer from Phosphine Oxide to Phosphinic Acid (with C. J. Cramer and C. E. Dykstra) *Chem. Phys. Lett*. **1987**, *136*, 17-21.

29. Carbanion-Accelerated Claisen Rearrangements. 4. Asymmetric Induction via 1,3,2-Oxazaphosphorinanes (with J. E. Marlin) *J. Org. Chem*. **1987**, *52*, 5742.

30. Silicon-Directed Nazarov Cyclizations. Part V. Substituent and Heteroatom Effects on the Reaction (with K. L. Habermas and G. A. Hite) *Helv. Chim. Acta* **1988**, *71*, 168-194.

31. Silicon-Directed Nazarov Cyclizations. Part VI. The Anomalous Cyclization of Vinyl Dienyl Ketones (with G. A. Hite) *Helv. Chim. Acta* **1988**, *71*, 195-208.

32. α-Nitro Keto Hydrazone and Keto Imine Dianions. Synthetic Equivalents for the Nitroalkene d^3 Synthon (with J. A. Sternberg and R. Lueoend) *J. Org. Chem*. **1988**, *53,* 1251-1263.

33. On the Lewis-Acid Induced Addition of Allylstannanes to Aldehydes: A Spectroscopic Investigation (with T. Wilson and T. M. Willson) *J. Am. Chem. Soc*. **1988**, *110*, 984-986.

34. Silicon-Directed Nazarov Cyclizations VII. Linearly-Fused Tricyclics (with R. C. Klix) *Tetrahedron* **1988**, *44*, 4043-4060.

35. Stereoselective Alkylation of Chiral α-Nitro Ketoimine Dianions. Observations on the Role of Amide Bases (with J. J. Ares) *J. Am. Chem. Soc*. **1988**, *110*, 4432-4434.

36. The Stereochemical Course of Migration from Phosphorus to Nitrogen in the Photo-Curtius Rearrangement of Phosphinic Azides (Harger Reaction) (with R. L. Dorow) *J. Org. Chem*. **1989**, *54*, 5-6.

37. Stereochemical and Spectroscopic Studies on the Reaction of Allylstannanes with Aldehydes (with E. J. Weber, T. M. Wilson and T. M. Willson) *Tetrahedron* **1989**, *45*, 1053-1065.

38. Mechanistic and Stereochemical Divergence in the Allylsilane-Acetal Addition Reaction (with T. M. Willson) *J. Am. Chem. Soc.* **1989**, *111*, 3475-3476.

39. Carbanion-Accelerated Claisen Rearrangements. 5. Studies on Stereocontrol with Phosphorus-Stabilized Anions (with G. Rajendra and J. E. Marlin) *Tetrahedron Lett.* **1989**, *30*, 2469.

40. Modified Proline Auxiliaries for Selective Addition of Organocerium Reagents to Hydrazones (with J. P. Edwards and T. Weber) *Synlett* **1989**, 20-22.

41. Investigations on Transition State Geometry in the Aldol Condensation (with B. R. Henke) *J. Am. Chem. Soc.* **1989**, *111*, 8032-8034.

42. Studies of the Mechanism of Allylmetal-Acetal Additions (with T. M. Willson) In *Selectivity in Lewis Acid Promoted Reactions*; Schinzer, D. Ed.; D. Reidel: Amsterdam, 1989; pp 247-263.

43. Carbanion-Accelerated Claisen Rearrangements. 6. Preparative and Stereochemical Studies with Sulfonyl-Stabilized Anions (with M. A. Harmata and K. S. White) *J. Am. Chem. Soc.* **1989**, *11*, 8878-8891.

44. The Origin of Stereoselective Opening of Chiral Dioxane and Dioxolane Acetals: The Solution Structure of Their Lewis Acid Complexes (with T. M. Willson and N. G. Almstead) *J. Am. Chem. Soc.* **1989**, *111*, 9258-9260.

45. Tandem [4+2]/[3+2] Cycloadditions: Facile and Stereoselective Construction of Polycyclic Frameworks (with Y.-C. Moon and C. B. W. Senanayake) *J. Am. Chem. Soc.* **1990**, *112*, 311-316.

46. The Solution and Solid State Structure of a Phosphorus-Stabilized Carbanion (with R. L. Dorow) *J. Am. Chem. Soc.* **1990**, *112*, 864-866.

47. The Theoretical Structures of Neutral, Anionic and Lithiated *P*-Allylphosphonic Diamide (with C. J. Cramer) *J. Org. Chem.* **1990**, *55*, 1806-1813.

48. Auxiliary-Based, Asymmetric S_N2' Reactions: A Case of 1,7-Relative Stereogenesis (with L. K. Marble) *J. Org. Chem.* **1990**, *55*, 1984-1986.

49. The Vinylogous Anomeric Effect in 3-Chloro-2-alkylcyclohexanone Oximes and Oxime Ethers (with R. T. Jacobs, M. S. Dappen and N. L. Sear) *J. Am. Chem. Soc.* **1990**, *112*, 3466-3474.

50. Intramolecular [4+2]-Cycloaddition of Nitroalkenes with Olefins. 2 (with Y.-C. Moon, C. J. Cramer, M. S. Dappen and C. B. W. Senanayake) *Tetrahedron* **1990**, *46*, 7373-7392.

51. Tandem [4+2]/[3+2]-Cycloadditions. 2. Asymmetric Induction with a Chiral Vinyl Ether (with C. B. W. Senanayake and G.-D. Ho) *Tetrahedron* **1990**, *46*, 4857-4876.

52. Silicon-Directed Nazarov Cyclizations. 8. Stereoelectronic Control of Torquoselectivity (with M. A. Wallace and C. B. Walker, Jr.) *J. Org. Chem.* **1990**, *55*, 5543-5545.

53. Stereoselective Alkylations of Chiral, Phosphorus-Stabilized Benzylic Carbanions (with R. L. Dorow) *J. Org. Chem.* **1990**, *55*, 5926-5928.

54. Lithium/Ammonia Cleavage of the N-N Bond in N-Methoxycarbonyl- and N-Acetyl-hydrazines (with O. Nicaise and J. P. Edwards) *J. Org. Chem.* **1990**, *55*, 6219-6223.

55. Synthesis, Structure and Reactivity of an Organogermanium Lewis Acid (with R. T. Jacobs, G. Dai-Ho, and S. Wilson) *Organometallics* **1990**, *9*, 3015-3019.

56. Solution and Solid State Structure of the "Wittig-Furukawa" Cyclopropanation Reagent (with J. P. Edwards and S. R. Wilson) *J. Am. Chem. Soc.* **1991**, *113*, 723-725.

57. Carbanion-Accelerated Claisen Rearrangements. 7. Phosphine Oxide and Phosphonate Anion-Stabilizing Groups (with J. E. Marlin) *J. Org. Chem.* **1991**, *56*, 1003-1013.

58. The Configuration and Conformation and Colligative Properties of a Phosphorus-Stabilized Anion (with P. C. Miller and S. R. Wilson) *J. Am. Chem. Soc.* **1991**, *113*, 1468-1470.

59. Investigations on Transition State Geometry in the Aldol Condensation (with B. R. Henke) *J. Am. Chem. Soc.* **1991**, *113*, 2177-2194.

60. Carbanion-Accelerated Claisen Rearrangements. 8. Phosphonamide Anion-Stabilizing Groups (with H. Stadler, R. L. Dorow and J.-H. Kim) *J. Org. Chem.* **1991**, *56*, 5063-5079.

61. On the Generation and Configurational Stability of (2*S*,3*S*)-1,2,3-Triphenylborirane (with K. Nishide and A.-M. Faucher) *J. Am. Chem. Soc.* **1991**, *113*, 6675-6676.

62. Studies on the Mechanism and Origin of Stereoselective Opening of Chiral Dioxane Acetals (with N. G. Almstead) *J. Am. Chem. Soc.* **1991**, *113*, 8089-8110.

63. On the Stereoselective Opening of Achiral Dioxane Acetals (with N. G. Almstead) *J. Org. Chem.* **1991**, *56*, 6458-6467.

64. On the Stereoselective Opening of Chiral Dioxane Acetals. Nucleophile Dependence (with N. G. Almstead) *J. Org. Chem.* **1991**, *56*, 6485-6487.

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23. Lewis Base Catalyzed – Lewis Acid Mediated Reactions ($n\rightarrow\sigma^*$) (with S. Rossi) in *Lewis Base Catalysis in Organic Synthesis*; Vedejs, E., Denmark, S. E. Eds.; Wiley-VCH: Weinheim, 2016; Chapt. 21; pp 1039-1076.

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25. Lewis Base Catalysis: A Platform for Enantioselective Addition to Alkenes Using Group 16 and 17 Lewis Acids ($n\rightarrow\sigma^*$) (with D. Kalyani, D. J.-P. Kornfilt and M. T. Burk) in *Lewis Base Catalysis in Organic Synthesis*; Vedejs, E., Denmark, S. E. Eds.; Wiley-VCH: Weinheim, 2016; Chapt. 24; 1155-1211.

26. Bifunctional and Synergistic Catalysis: Lewis Acid Catalysis and Lewis Base Assisted Bond Polarization ($n\rightarrow\sigma^*$) (with W.-j. Chung) in *Lewis Base Catalysis in Organic Synthesis*; Vedejs, E., Denmark, S. E. Eds.; Wiley-VCH: Weinheim, 2016; Chapt. 25; 1215-1258.

27. Ernest L. Eliel, a Physical Organic Chemist with the Right Tool for the Job: Rapid Injection Nuclear Magnetic Resonance (with A. A. Thomas) in *Stereochemistry and Global Connectivity: The Legacy of Ernest Eliel*, Chen, H. N. Ed.; ACS Symposium Series No. 1258; American Chemical Society Press: Washington DC, 2017, Volume 2, Chapt. 8.

28. Lewis Base Activation of Silicon Lewis Acids (with S. Rossi) in *Organosilicon Chemistry – Novel Approaches and Reactions*; Hiyama, T., Oestreich, M. Eds.; Wiley-VCH: Weinheim, 2019; Chapt. 5.

29. Asymmetric Synthesis via Chiral Phosphorus-Stabilized Anions (with R. A. Reed, and C.–T. Chen) in *Advances in Carbanion Chemistry*; Snieckus, V., Ed.; JAI Press Inc.: Connecticut, manuscript submitted.

Books

1. *Encyclopedia of Organic Reagents,* Wiley-Interscience: Chichester, 1995; Paquette, L. A. Ed.
2. *Handbook of Reagents for Organic Synthesis. Reagents, Auxiliaries and Catalysts for C-C Bond Formation*; Coates, R. M.; Denmark, S. E., Eds.; Wiley-Interscience: Chichester, 1999.
3. *Topics in Stereochemistry,* Wiley-Interscience: New York, 1999; Volume 22; Denmark, S. E., Ed.
4. *Topics in Stereochemistry,* Wiley-Interscience: New York, 2003; Volume 23; Denmark, S. E., Ed.
5. *Topics in Stereochemistry,* Wiley-Interscience: New York, 2004; Volume 24; Denmark, S. E., Siegel, J., Eds.
6. *Topics in Stereochemistry,* Wiley-Interscience: New York, 2006; Volume 25; Denmark, S. E., Siegel, J., Eds.
7. *Organic Syntheses,* John Wiley and Sons: New York, 2008; Volume 85; Denmark, S. E., Ed.
8. *Organic Reactions*, John Wiley and Sons: New York, 2008; Volume 71; Denmark, S. E., Ed.
9. *Organic Reactions*, John Wiley and Sons: New York, 2008; Volume 72; Denmark, S. E., Ed.
10. *Organic Reactions*, John Wiley and Sons: New York, 2008; Volume 73; Denmark, S. E., Ed.
11. *Organic Reactions*, John Wiley and Sons: New York, 2009; Volume 74; Denmark, S. E., Ed.
12. *Organic Reactions*, John Wiley and Sons: New York, 2011; Volume 75; Denmark, S. E., Ed.
13. *Organic Reactions*, John Wiley and Sons: New York, 2012; Volume 76; Denmark, S. E., Ed.
14. *Organic Reactions*, John Wiley and Sons: New York, 2012; Volume 77; Denmark, S. E., Ed.
15. *Organic Reactions*, John Wiley and Sons: New York, 2012; Volume 78; Denmark, S. E., Ed.
16. *Organic Reactions*, John Wiley and Sons: New York, 2012; Volume 79; Denmark, S. E., Ed.
17. *Organic Reactions*, John Wiley and Sons: New York, 2013; Volume 80; Denmark, S. E., Ed.
18. *Organic Reactions*, John Wiley and Sons: New York, 2013; Volume 81; Denmark, S. E., Ed.
19. *Organic Reactions*, John Wiley and Sons: New York, 2013; Volume 82; Denmark, S. E., Ed.
20. *Organic Reactions*, John Wiley and Sons: New York, 2014; Volume 83; Denmark, S. E., Ed.
21. *Organic Reactions*, John Wiley and Sons: New York, 2014; Volume 84; Denmark, S. E., Ed.
22. *Organic Reactions*, John Wiley and Sons: New York, 2014; Volume 85; Denmark, S. E., Ed.
23. *Organic Reactions*, John Wiley and Sons: New York, 2015; Volume 86; Denmark, S. E., Ed.
24. *Organic Reactions*, John Wiley and Sons: New York, 2015; Volume 87; Denmark, S. E., Ed.
25. *Organic Reactions*, John Wiley and Sons: New York, 2015; Volume 88; Denmark, S. E., Ed.
26. *Organic Reactions*, John Wiley and Sons: New York, 2016; Volume 89; Denmark, S. E., Ed.

27. *Organic Reactions*, John Wiley and Sons: New York, 2016; Volume 90; Denmark, S. E., Ed.
28. *Organic Reactions*, John Wiley and Sons: New York, 2017; Volume 91; Denmark, S. E., Ed.
29. *Organic Reactions*, John Wiley and Sons: New York, 2017; Volume 92; Denmark, S. E., Ed.
30. *Organic Reactions*, John Wiley and Sons: New York, 2017; Volume 93; Denmark, S. E., Ed.
31. *Organic Reactions*, John Wiley and Sons: New York, 2017; Volume 94; Denmark, S. E., Ed.
32. *Organic Reactions*, John Wiley and Sons: New York, 2018; Volume 95; Denmark, S. E., Ed.
33. *Organic Reactions*, John Wiley and Sons: New York, 2018; Volume 96; Denmark, S. E., Ed.
34. *Organic Reactions*, John Wiley and Sons: New York, 2019; Volume 97; Denmark, S. E., Ed.
35. *Organic Reactions*, John Wiley and Sons: New York, 2019; Volume 98; Denmark, S. E., Ed.
36. *Organic Reactions*, John Wiley and Sons: New York, 2019; Volume 99; Denmark, S. E., Ed.
37. *Organic Reactions*, John Wiley and Sons: New York, 2020; Volume 100; Denmark, S. E., Ed.
38. *Lewis Base Catalysis in Organic Synthesis, Vol. 1-3*; Vedejs, E., Denmark, S. E. Eds.; Wiley-VCH: Weinheim, 2016.

Patents

1. 17β-Cyano-9α-17α-dihydroandrost-4-ene-3-one (with Livingston, D. A.; Pearlman, B. A.; Huber, J. E.) US Pat. US 4,921,638 A, May 1, 1990.

2. 17α-Halo silyl ethers of 17β-cyano-17α-hydroxy steroids (with Livingston, D. A.; Pearlman, B. A.; Allen, B.) Eur. Pat. EP 268400 A1, May 25, 1988. US Pat. US 4,977,255

3. Cross-Coupling Reaction of Organosilicon Nucleophiles (with Choi, J.-Y.; Wehrli, D.; Wu, Z.; Sweis, R. F.; Neuville, L.; Pan, W.; Wang, Z.; Yang, S.-Y.) US Pat. US 6,867,323 B2, March 15, 2005.

4. Method for Forming Allylic Alcohols (with Milicevic, S.; Nguyen, S. T.) World Pat. WO 2010/025366 A2, March 4, 2010. US Pat. Application 13/060,793, filed on February 25, 2011.

5. Extraction of Selected Platinum-Group Metals from Supported Catalyst (with Ibrahim, M. Y. S.) PTO 171127, UIUC-2017-119-01 (PRO), filed on November 27, 2017

6. Novel Spirobicyclic Analogs (with Janssen Pharmaceutica) International Patent No. WO2019/110734 A1, issued on June 13, 2019.

7. Extrapolative Prediction of Enantioselectivity Enabled by Computer-Driven Workflow, New Molecular Representations and Machine Learning (with Zahrt, A. F.; Henle, J. J.; Rose, B. T.; Wang, Y.; Darrow, W. T.) PTO 62/793,735, UIUC-2018-199-01(PRO), filed on January 17, 2019

Invited Lectures (Plenary Lectures in **Bold**)

1982

1. Massachusetts Institute of Technology, Cambridge, Massachusetts; March 9, 1982
2. Indiana University, Bloomington, Indiana; November 22, 1982

1983

3. The Upjohn Company, Kalamazoo, Michigan; January 14, 1983
4. Burroughs-Wellcome Research Laboratories, Research Triangle Park, North Carolina; February 11, 1983
5. NSF Workshop on Organic Synthesis and Natural Products Chemistry, Pingree Park, Colorado; July 20-23, 1983
6. University of Virginia, Charlottesville, Virginia; November 14, 1983
7. Monsanto Agricultural Products Company, St. Louis, Missouri; December 2, 1983

1984

8. The Upjohn Company, Kalamazoo, Michigan; February 24, 1984
9. Purdue University, West Lafayette, Indiana; March 20, 1984
10. Pfizer Company, Groton, Connecticut; April 2, 1984
11. Yale University, New Haven, Connecticut; April 3, 1984
12. Eli Lilly Company, Indianapolis, Indiana; May 16, 1984
13. University of Illinois, Chicago Circle, Chicago, Illinois; June 5, 1984
14. Burlex Company, Cedar Knolls, New Jersey; November 6, 1984
15. Sandoz Company, East Hannover, New Jersey; November 7, 1984
16. Stuart Pharmaceuticals, Wilmington, Delaware; November 8, 1984
17. Washington University, St. Louis, Missouri; November 29, 1984
18. University of California-Irvine, Irvine, California; December 3, 1984
19. University of California-Berkeley, Berkeley, California; December 4, 1984

1985

20. Procter and Gamble Company, Cincinnati, Ohio; January 28, 1985
21. University of Chicago, Chicago, Illinois; February 15, 1985
22. Syracuse University, Syracuse, New York; February 18, 1985
24. Rohm and Haas Company, Philadelphia, Pennsylvania; February 21, 1985
25. University of Delaware, Wilmington, Delaware; February 22, 1985
26. Cornell University, Ithaca, New York; March 18, 1985
27. University of Rochester, Rochester, New York; March 20, 1985
28. Eastman Kodak, Rochester, New York; March 21, 1985
29. Warner Lambert, Ann Arbor, Michigan; March 26, 1985
30. Wayne State University, Detroit, Michigan; March 27, 1985
31. Colorado State University, Fort Collins, Colorado; April 1, 1985
32. Colorado School of Mines, Golden, Colorado; April 2, 1985
33. University of Colorado-Boulder, Boulder, Colorado; April 3, 1985
34. Aldrich Award Symposium, Miami, Florida; April 30, 1985
35. Northwestern University, Chicago, Illinois; May 16, 1985
36. ACS Central Regional Meeting, Toledo, Ohio; June 5, 1985
37. ACS Northeast Regional Meeting, New Paltz, New York; June 24, 1985
38. Gordon Research Conference, Heterocycles; July 8-12, 1985
39. "Synthesis in Organic Chemistry" Symposium, Oxford, England; July 21-25, 1985
40. University of Leicester, Leicester, England; July 26, 1985
41. ICI Pharmaceuticals, Alderley Park, England; July 29, 1985

42. University of Salford, Manchester, England; July 30, 1985
43. University of Liverpool, Liverpool, England; July 31, 1985
44. University of Nottingham, Nottingham, England; August 1, 1985
45. University of Southhampton, Southhampton, England; August 5, 1985
46. Cambridge University, Cambridge, England; August 6, 1985
47. Wellcome Research Laboratories, London, England; August 7, 1985
48. Bowling Green State University, Bowling Green, Ohio; September 25, 1985
49. University of Pennsylvania, Philadelphia, Pennsylvania; September 30, 1985
50. Dow Chemical Company, Midland, Michigan; November 1, 1985
51. The Upjohn Company, Kalamazoo, Michigan; November 6, 1985
52. Wabash College, Crawfordsville, Indiana; November 12, 1985
53. Merck, Sharp and Dohme Company, Rahway, New Jersey; November 20, 1985
54. Stanford University, Stanford, California; December 2, 1985
55. Dow Chemical Company, Walnut Creek, California; December 3, 1985
56. Alcon Company, Fort Worth, Texas; December 5, 1985
57. University of Texas-Austin, Austin, Texas; December 6, 1985
58. Harvard University, Cambridge, Massachusetts; December 16, 1985

1986

59. Northwestern University, Evanston, Illinois; February 10, 1986
60. Smith, Kline and French Company, Philadelphia, Pennsylvania; February 19, 1986
61. Michigan State University, East Lansing, Michigan; February 20, 1986
62. Johns Hopkins University, Baltimore, Maryland; March 4, 1986
63. Eli Lilly Company, Indianapolis, Indiana; March 17-18, 1986
64. Lederele Laboratories, Pearl River, New York; April 4, 1986
65. Philadelphia Organic Chemists Club, Philadelphia, Pennsylvania; April 23, 1986
66. Merck, Sharp and Dohme Company, West Point, Pennsylvania; April 24, 1986
67. University of Minnesota, Minneapolis, Minnesota; May 26-June 6, 1986
68. ACS Great Lakes Regional Meeting, Milwaukee, Wisconsin; June 2-4, 1986
69. Gordon Research Conference, Stereochemistry; June 23-27, 1986
70. Gordon Research Conference, Reactions and Processes; July 14-18, 1986
71. ACS Middle Atlantic Regional Meeting, Baltimore, Maryland; September 2-4, 1986
72. Northern Illinois University, Dekalb, Illinois; September 18, 1986
73. Princeton ACS Organic Chemistry Symposium, Princeton, New Jersey; September 26, 1986
74. G. D. Searle & Company, Skokie, Illinois; October 6, 1986
75. Hoffmann LaRoche Inc., Nutley, New Jersey; October 16, 1986
76. E. I. duPont de Nemours Company, Wilmington, Delaware; October 17, 1986
77. University of Zürich, Zürich, Switzerland; November 4, 1986
78. University of Minnesota, Minneapolis, Minnesota; November 12, 1986
79. University of Puerto Rico, Rio Piedras, Puerto Rico; November 21, 1986
80. Emory University, Atlanta, Georgia; December 2, 1986

1987

81. Ohio State University, Columbus, Ohio; January 29, 1987
82. Brandeis University, Waltham, Massachusetts; February 23, 1987
83. Columbia University, New York, New York; March 5, 1987
84. ACS Cincinnati Local Section, Cincinnati, Ohio; March 12, 1987
85. Dow Chemical Company, Midland, Michigan; March 16, 1987
86. University of Missouri, Columbus, Montana; April 24, 1987
87. Nutrasweet, Chicago, Illinois; May 4, 1987
88. ETH-Zürich, Zürich, Switzerland; May 18, 1987
89. Ciba-Geigy Corporation, Basle, Switzerland; May 19, 1987
90. University of Geneva, Geneva, Switzerland; May 21-22, 1987

91. University of Fribourg, Fribourg, Switzerland; May 25-26, 1987
92. University of Lausanne, Lausanne, Switzerland; May 27, 1987
93. Phillips-Universität, Marburg, West Germany; June 1, 1987
94. University of Konstanz, Konstanz, West Germany; June 3, 1987
95. ACS "State of the Art" Symposium, New Orleans, Louisiana; September 1, 1987
96. Massachusetts Institute of Technology, Cambridge, Massachusetts; October 15, 1987
97. Princeton University, Princeton, New Jersey; November 10, 1987
98. University of Guelph-Waterloo, Guelph, Ontario, Canada; November 20, 1987
99. Ciba Geigy, Summit, New Jersey; November 25, 1987

1988

100. Stuart Pharmaceuticals, Wilmington, Delaware; January 26-27, 1988
101. Texas A&M University, College Station, Texas; February 25, 1988
102. McNeil Laboratories, Springhouse, Pennsylvania; March 4, 1988
103. University of Wisconsin, Madison, Wisconsin; April 6, 1988
104. Depaw University, Greencastle, Indiana; April 28, 1988
105. Hokkaido University, Hokkaido, Japan; July 4, 1988
106. University of Tokyo, Tokyo, Japan; July 6, 1988
107. Shin-etsu Chemical Industry, Inc., Gunma, Japan; July 7, 1988
108. Fuji Film, Kanagawa, Japan; July 8, 1988
109. Tokyo Institute of Technology, Tokyo, Japan; July 9, 1988
110. Third Nozaki Conference, Sagami Chemical Research Center, Sagami, Japan; July 11-12, 1988
111. Nagoya University, Nagoya, Japan; July 13, 1988
112. Osaka University, Osaka, Japan; July 14, 1988
113. Kyoto University, Kyoto, Japan; July 15, 1988
114. ACS Los Angeles Nitroalkene Symposium, Los Angeles, California; September 26-27, 1988
115. NATO Workshop on Lewis Acids, Athens, Greece; October 2-7, 1988
116. Oregon State University, Corvallis, Oregon; October 24, 1988
117. ACS Rochester Local Section, Rochester, New York; November 7, 1988

1989

118. North Carolina State University, Raleigh, North Carolina; February 20, 1989
119. University of California-Irvine, Irvine, California; March 23, 1989
120. University of Michigan, Ann Arbor, Michigan; April 5, 1989
121. 25th EUCHEM Conference on Stereochemistry, Bürgenstock, Switzerland; April 30-May 6, 1989
122. 1st French-American Chemical Society Meeting, Paris, France; June 4-9, 1989
123. ACS 31st National Organic Symposium, Cornell University, Ithaca, New York; June 18-23, 1989
124. Symposium on Carbanion Chemistry, Ottawa, Canada; July 24-26, 1989
125. ACS Cope Scholar Symposium, Miami Beach, Florida; September 12, 1989
126. University of Chicago, Chicago, Illinois; October 16, 1989
127. University of Montreal, Montreal, Canada; November 1, 1989
128. Merck Frosst, Montreal, Canada; November 2, 1989
129. University of Toronto, Toronto, Canada; November 3, 1989
130. Harvard University, Cambridge, Massachusetts; December 11, 1989

1990

131. ETH-Zürich, Zürich, Switzerland; April 30, 1990
132. Georg-August Universität, Göttingen, FRG; May 21, 1990
133. Phillips Universität, Marburg, FRG; June 7, 1990
134. 23rd Reaction Mechanisms Conference, Boulder, Colorado; June 10-14,1990
135. 3rd Belgian Organic Synthesis Symposium, Louvain, Belgium; July 16-20, 1990

136. Universität Erlangen-Nurnberg, Erlangen, FRG; September 6, 1990
137. Universität Basel, Basel, Switzerland; September 10, 1990
138. Yale University, New Haven, Connecticut; November 14, 1990

1991

139. Gulf Coast Chemistry Conference, Pensacola, Florida; September 19-21, 1991
140. French Chemical Society, Paris, France; October 1-3, 1991
141. Université Paris Sud, Paris, France; October 4, 1991
142. Université Pierre et Marie Curie, Paris, France; October 5, 1991
143. SmithKline Beecham, Philadelphia, Pennsylvania; October 24, 1991
144. Philadelphia Organic Chemists Club, Philadelphia, Pennsylvania; October 24, 1991
145. International Kyoto Organic Chemistry Conference, Kyoto, Japan; November 11-15, 1991
146. Osaka University, Osaka, Japan; November 16, 1991
147. Okayama University, Okayama, Japan; November 18, 1991
148. Nagoya University, Nagoya, Japan; November 19, 1991
149. Tokyo Institute of Technology, Tokyo, Japan; November 21, 1991
150. University of Tokyo, Tokyo, Japan; November 22, 1991
151. California Institute of Technology, Pasadena, California; December 11, 1991
152. Stanford University, Palo Alto, California; December 12, 1991

1992

153. ETH-Zürich, Zürich, Switzerland; January 4-8, 1992
154. Miami University, Miami, Ohio; February 6, 1992
155. University of Alberta, Edmonton, Canada; April 6, 1992
156. SUNY Stonybrook, Stonybrook, New York; April 23, 1992
157. Boehringer Mannheim, Ridgefield, Connecticut; May 20, 1992
158. ACS Milwaukee Section, Marquette University, Milwaukee, Wisconsin; June 2-3, 1992
159. Stereochemistry Gordon Research Conference, Salve Regina, Rhode Island; June 21-26, 1992
160. ACS Carbanion Symposium, Washington, DC; August 23-27, 1992
161. Hoescht-Rousell, Somerville, New Jersey; September 14, 1992
162. Glaxo, Raleigh-Durham, North Carolina; September 24, 1992
163. Duke University, Chapel Hill, North Carolina; September 25, 1992
164. Bio-Mega, Montreal, Canada; December 1, 1992
165. West Virginia University, Morgantown, West Virginia; December 9, 1992
166. University of Pittsburgh, Pittsburgh, Pennsylvania; December 10, 1992
167. Ethyl Corporation, Baton Rouge, Louisiana; December 17, 1992

1993

168. Dupont-Merck, Wilmington, Delaware; January 28, 1993
169. Parke-Davis, Ann Arbor, Michigan; February 11, 1993
170. Ligand Pharmaceuticals, San Diego, California; March 11, 1993
171. Scripps Research Institute, La Jolla, California; March 12, 1993
172. Bristol-Myers-Squibb, Wallingford, Connecticut; March 25, 1993
173. University of Kansas, Lawrence, Kansas; April 15, 1993
174. Campaign/Carmack Symposium Indiana University, Bloomington, Indiana; May 26-27, 1993
175. Reactions and Processes Gordon Research Conference, New Hampton, New Hampshire; July 11-16, 1993
176. University of New Orleans, New Orleans, Louisiana; September 10, 1993
177. ACS Southeast Regional Section Meeting, Johnson City, Tennessee; October 18, 1993
178. Case Western Reserve University, Cleveland, Ohio; December 9, 1993

1994

179. **IUPAC Meeting on Natural Products, Karachi, Pakistan; January 20-26, 1994**
180. University of Minnesota, Minneapolis, Minnesota; February 22, 1994
181. NSF/FSU Workshop on Organic Synthesis, Stanford University, Palo Alto, California; March 10-12, 1994.
182. Université Paris-Sud, Orsay, France; May 30, 1994
183. Université Pierre et Marie Curie, Paris, France; May 31, 1994
184. Ecole Polytechnique, Gif-Sur-Yvette, France; June 2, 1994
185. Université de Rouen, Rouen, France; May 27, 1994
186. Ecole Normal Superior, Paris, France; May 24, 1994
187. Université de Rennes, Rennes, France; June 10, 1994
188. Synthelabo, Paris, France; June 13, 1994
189. ICSF Gif, Gif, France; June 15, 1994
190. LIGAND Pharmaceuticals, San Diego, California; November 4, 1994
191. Bristol Myers Squibb, Princeton, New Jersey; November 17, 1994
192. Merck Research Laboratories, Rahway, New Jersey; November 18, 1994
193. Chambers Lectures, University of Rochester, Rochester, New York; December 5-9, 1994

1995

194. **US/KOSEF Symposium in Organic Synthesis Seoul, National University, Seoul, Korea; January 7-13, 1995**
195. *Organic Syntheses* Lectures, University of California, Irvine, Irvine, California; March 15-16, 1995
196. Massachusetts Institute of Technology, Cambridge, Massachusetts; April 6, 1995
197. University of Illinois-Chicago, Chicago, Illinois; April 11, 1995
198. **12th Biennial Lakeland Heterocycles Meeting, Grasmere, England; May 4-8, 1995**
199. Manchester University, Manchester, United Kingdom; May 9, 1995
200. Liverpool University, Liverpool, United Kingdom; May 10, 1995
201. Zeneca Pharmaceuticals, Mereside, United Kingdom; May 11, 1995
202. **Gordon Research Conference Natural Products, New England College, Henniker, New Hampshire; July 2-7, 1995**
203. **OMCOS-8, Santa Barbara, California; August 7-10, 1995**
204. Pfizer LTD., Sandwich, England; September 4, 1995
205. Glaxo/Wellcome, Beckenham, England; September 5, 1995
206. Royal Society of Chemistry, Perkin Lecture, Sheffield, United Kingdom; September 6-8, 1995
207. University of Leicester, Leicester, England; September 7, 1995
208. Zeneca Process Development, Hurdsford, England; September 7, 1995
209. University of Ottawa, Ottawa, Canada; November 13, 1995
210. Merck Frost, Montreal, Canada; November 14, 1995
211. Eastman Kodak, Rochester, New York; December 4, 1995
212. Pfizer Central Research, Groton, Connecticut; December 5, 1995

1996

213. University of Los Angeles, Los Angeles, California; March 13, 1996
214. Indiana University-Purdue University Indianapolis, Indianapolis, Indiana; March 20, 1996
215. Toyama Prefectural University, Toyama, Japan; March 25, 1996
216. Kanazawa University, Kanazawa, Japan; March 26, 1996
217. **Japan Pharmaceutical Society, Kanazawa, Japan; March 27-29, 1996**
218. Sankyo Industries, Tokyo, Japan; April 1, 1996
219. Sendai University, Sendai, Japan; April 2, 1996
220. Tokyo Institute of Technology, Tokyo, Japan; April 3, 1996
221. University of Tokyo, Tokyo, Japan; April 4, 1996
222. University of North Carolina, Chapel Hill, North Carolina; April 26, 1996

223. Schering Plough, Kenilworth, New Jersey; May 13, 1996
224. Gordon Research Conference on Stereochemistry, Salve Regina, Rhode Island; June 9-14, 1996
225. University of Sydney, Sydney, Australia; June 21, 1996
226. University of New South Wales, Sydney, Australia; June 24, 1996
227. Australian National University, Canberra, Australia; June 25, 1996
228. CSIRO, Div. of Chemicals and Polymers, Melbourne, Australia; June 27, 1996
229. University of Melbourne, Melbourne, Australia; June 28, 1996
230. Australian, National Organic Symposium, Yeppoon, Australia; July 1-5, 1996
231. 3me Cycle in Organic Chemistry, Champéry, Switzerland; September 1-6, 1996
232. LIGAND Pharmaceuticals, La Jolla, California; October 10, 1996
233. University of Chicago, Chicago, Illinois; November 18, 1996

1997

234. French American Chemical Society Meeting, Tucson, Arizona; March 16-21, 1997
235. LIGAND Pharmaceuticals, La Jolla, California; May 8-9, 1997
236. 30th Organosilicon Symposium, London, Ontario, Canada; May 30-31, 1997
237. National Taiwan Normal University, Taipei, Taiwan; June 23, 1997
238. National Taiwan University, Taipei, Taiwan; June 24, 1997
239. National Tsing Hua University, Taipei, Taiwan; June 25, 1997
240. National Meeting Academica Sinica, Taichung, Taiwan; June 27, 1997
241. Procter and Gamble, Cincinnati, Ohio; August 7, 1997
242. 16th International Congress of Heterocyclic Chemistry, Bozeman, Montana; August 1997
243. ACS Satellite Television Seminar, Washington, DC; October 15, 1997
244. Abbott Pharmaceutical Division, Chicago, Illinois; November 5, 1997
245. Searle, Skokie, Illinos; November 17, 1997

1998

246. University of Utah, Salt Lake City, Utah; February 26, 1998
247. Brigham Young University, Provo, Utah; February 27, 1998
248. SmithKline Beecham, King of Prussia, Pennsylvania; March 9, 1998
249. Zeneca Pharmaceuticals, Wilmington, Maryland; December 12, 1997
250. University of Tennessee-Knoxville, Knoxville, Tennessee; April 16, 1998
251. University of Virginia, Charlotte, Virginia; April 17, 1998
252. Novartis Lecturer, Novartis Corp. Basel, Switzerland; May 6, 1998
253. Novartis Lecturer, Novartis Corp. Vienna, Austria; May 8, 1998
254. Novartis Lecturer, Novartis Corp. Horsham, England; May 11, 1998
255. Aldrich Asymmetric Synthesis Symposium, Great Lakes Regional Meeting, Milwaukee, Wisconsin; June 1, 1998
256. Summer School in Organic Synthesis, Gargnano, Italy; June 15-19, 1998
257. CNR Bologna, Bologna, Italy; June 22, 1998
258. University of Florence, Florence, Italy; June 23, 1998
259. Glaxo-Wellcome, Verona, Italy; June 25, 1998
260. International Conference on Organic Synthesis, Venice, Italy; June 28-July 3, 1998
261. GRC Reactions and Processes, Henniker, New Hampshire; July 12-17, 1998
262. 5th International Symposium on Carbanion Chemistry (ISCC-5), Sendai, Japan; August 1-5, 1998
263. Dupont Central Research, Wilmington, Delaware; September 8, 1998
264. Bristol Myers Squibb, New Brunswick, New Jersey; September 9, 1998
265. Boston College, Chestnut Hill, Massachusetts; November 19, 1998
266. University of Rennes, Rennes, France; November 30, 1998
267. French Chemical Society, Paris, France; December 1, 1998
268. Rhone-Poulenc Research Center, Lyon, France; December 2, 1998
269. University of Lyon, Lyon, France; December 3, 1998

270. University of Strasbourg, Strasbourg, France; December 4, 1998

1999

271. Notre Dame, South Bend, Indiana; February 11. 1999
272. University of Texas, Austin, Texas; February 26, 1999
273. Stanford University, Stanford, California; April 15, 1999
274. Ontogen Corp., Carlsbad, California; April 15, 1999
275. Boehringer-Ingleheim, Middlebury, Connecticut; May 6, 1999
276. Bristol Myers Squibb, Wallingford, Connecticut; May 7, 1999
277. GRC Heterocyclic Chemistry, Henniker, New Hampshire; July 12-17, 1999
278. Texas A&M, College Station, Texas; October 22, 1999
279. Cornell University, Ithaca, New York; November 4, 1999
280. University of Chicago, Chicago, Illinois; November 8, 1999
281. Sloan Kettering Cancer Research Center, New York, New York; November 23, 1999

2000

282. Georgia Institute of Technology, Atlanta, Georgia; January 31, 2000
283. Florida State University, Tallahassee, Florida; February 1, 2000
284. Pharmacia and Upjohn International Symposium, Orlando, Florida; March 1, 2000
285. Tulane University, New Orleans, Louisiana; April 17, 2000
286. Hoffmann-LaRoche, Nutley, New Jersey; April 24, 2000
287. Princeton University, Princeton, New Jersey; April 25, 2000
288. Royal Society of Chemistry International Symposium, Leeds, United Kingdom; September 5-7, 2000
289. Chiron Corporation, San Francisco, California; October 5, 2000
290. W. S. Johnson Symposium, Stanford, California; October 6-7, 2000
291. Michigan State University, Lansing, Michigan; October 19, 2000
292. R. W. Johnson Pharmaceutical Research Institute, San Diego, California; December 1, 2000
293. Symposium on Cycloadditions and Annulation, Pacifichem 2000, Honolulu, Hawaii; December 15-19, 2000
294. Symposium on Enantioselective Catalysis, Pacifichem 2000, Honolulu, Hawaii; December 15-19, 2000

2001

295. DuPont Pharmaceutical and Agricultural Products, Wilmington, Delaware; March 16, 2001
296. Brandeis University, Waltham, Massachusetts; April 23, 2001
297. Columbia University, New York, New York; April 30, 2001.
298. Pfizer Global Research Symposium, Ann Arbor, Michigan; May 11, 2001
299. Canadian Society for Chemistry Conference, Montreal, Canada; May 26-30, 2001
300. Pfizer Summer Chemistry Symposium, Sandwich, United Kingdom; July 17, 2001
301. Kumada/Corriu Symposium, Kyoto, Japan; July 27-30, 2001
302. Merck Laboratories, Rahway, New Jersey; September 14, 2001
303. Pharmaceutical Discovery Distinguished Lectures in Organic Chemistry Series, Abbott Laboratories, Abbott Park, Illinois; October 25, 2001

2002

304. Mesilla Workshop on Asymmetric Catalysis, Mesilla, New Mexico; February 2-6, 2002
305. ACS Prospective 2002 Symposium on Process Chemistry, Barcelona, Spain; February 24-27, 2002
306. Roche Distinguished Lecturer, Colorado State University, Colorado; March 25, 2002
307. ACS Symposium on New Methodologies in Asymmetric Catalysis, Orlando, Florida; April 8, 2002

308. Penn State University, State College, Pennsylvania; May 6, 2002
309. GRC Stereochemistry, Salve Regina, Rhode Island; June 9-14, 2002
310. GRC Green Chemistry, Oxford, United Kingdom; September 8-13, 2002
311. Stanford University, Palo Alto, California; September 25, 2002
312. UCI Organic Syntheses Symposium, University of California, Irvine, Irvine, California; December 13, 2002

2003

313. Pharmacia Corporation, Kalamazoo, Michigan; January 9, 2003
314. University of Delaware, Newark, Delaware; March 7, 2003
315. BMS Symposium, Harvard University, Cambridge, Massachusetts; March 17, 2003
316. Aldrich Award Symposium, New Orleans, Louisiana; March 22-26, 2003
317. Pedler Award Symposium, University College, London, United Kingdom; May 6, 2003
318. University of Liverpool, Liverpool, United Kingdom; May 7, 2003
319. Lakeland Heterocyclic Conference, Grasmere, United Kingdom; May 8-11, 2003
320. University of Leeds, Leeds, United Kingdom; May 12, 2003
321. University of Southampton, Southampton, United Kingdom; May 16, 2003
322. Bristol-Meyers-Squibb, Princeton, New Jersey; May 30, 2003
323. GRC Organic Reactions & Processes, Bristol, Rhode Island; July 20-25, 2003
324. Brazilian Organic Synthesis Meeting, Sao Paulo, Brazil; August 24-28, 2003
325. Merck Frosst Lectures, Montreal, Canada; September 24-25, 2003
326. Aldrich Chemical Co., Milwaukee, Wisconsin; October 16-17, 2003
327. Gassman Lectures, University of Minnesota, Minneapolis, Minnesota; November 10-12, 2003

2004

328. ETH Zürich, Zürich, Switzerland; January 12, 2004
329. University of Zürich, Zürich, Switzerland; January 13, 2004
330. University of Basel, Basel, Switzerland; January 14, 2004
331. Dains Lectureship, University of Kansas, Manhattan, Kansas; March 19, 2004
332. Cotton Symposium, Texas A&M, College Station, Texas; March 26, 2004
333. ACS Symposium on the Coordination Chemistry of Enantioselective Catalysis, Anaheim, California; March 27-30, 2004
334. Ireland Lectureship, University of Virginia, Charlottesville, Virginia; April 9, 2004
335. **Wageningen Symposium on Organic Chemistry; April 15-16, 2004**
336. University of Alberta, Edmonton, Canada; May 17, 2004
337. Boston College Catalysis Symposium, Boston College, Chestnut Hill, Massachusetts; May 22, 2004
338. **Roche Symposium, Boulder, Colorado; June 2-4, 2004**
339. Iowa State University, Ames, Iowa; October 1, 2004
340. **Oppolzer Lecturer, University of Geneva, Geneva, Switzerland; October 18, 2004**
341. University of Fribourg, Fribourg, Switzerland; October 19-20, 2004
342. ETH-Lausanne, Lausanne, Switzerland; October 21, 2004
343. University of Bern, Bern, Switzerland; October 22, 2004
344. **Eliel Symposium, 2004 SERM, Raleigh-Durham, North Carolina; November 10-14, 2004**
345. **UCSD Symposium on Frontiers in Organic Chemistry; December 13, 2004**
346. Amgen Co., Thousand Oaks, California; December 15, 2004

2005

347. **6th Florida Heterocycles Conference, University of Florida, Gainesville, Florida; February 28, 2005**
348. Merck Laboratories, Rahway, New Jersey; March 25, 2005

349. **7th Rhodia International Symposium on Process Development Chemistry and Technology, Amelia Island, Florida; April 16-20, 2005**
350. Abbott Lecturer, University of California, Berkeley, California; May 10, 2005
351. **Sanofi-Aventis Visions in Chemistry Symposium, ACS MARM; May 25, 2005**
352. **MSM/Chiral USA Meeting, Princeton, New Jersey; July 13, 2005**
353. **AstraZeneca Excellence in Chemistry Award Symposium, Wilmington, Delaware; October 27, 2005**

2006

354. **Eli Lilly Grantee Symposium, Indianapolis, Indiana; March 6-7, 2006**
355. University of Pennsylvania, Philadelphia, Pennsylvania; March 13, 2006
356. **E. J. Corey Award Symposium, ACS Meeting, Atlanta, Georgia; March 28, 2006**
357. Northwestern University, Evanston, Illinois; April 7, 2006
358. **Bürgenstock Conference on Stereochemistry, Bürgenstock, Switzerland; April 22-28 2006**
359. Pfizer Synthetic Organic Lecturer, University of Guelph, Ontario, Canada; May 17, 2006
360. Bristol-Myers-Squibb, New Brunswick, New Jersey; May 18, 2006
361. **Sigma-Aldrich Symposium, Great Lakes Regional ACS Meeting, Milwaukee, Wisconsin; June 1, 2006**
362. GRC Stereochemistry, Salve Regina, Rhode Island; June 18-23, 2006
363. **Balticum Organicum Syntheticum, Tallinn, Estonia; June 25-29, 2006**
364. **IASOC, Ischia, Napoli, Italy; September 16-21, 2006**
365. Merck Lectureship, University of Calgary, Calgary, Canada; October 20, 2006
366. Yamada-Koga Prize Symposium, University of Tokyo, Tokyo, Japan; October 27, 2006
367. Frontiers in Chemical Research, Texas A&M University, College Station, Texas; November 13-15, 2006

2007

368. **Felix Serratosa Conferences, Autonoma University of Barcelona, Barcelona, Spain; January 15-16, 2007**
369. Institute of Chemical Research of Catalonia (ICIQ), Tarragona, Spain; January 17, 2007
370. Textbook Classics, History of Chemistry Division, 233rd ACS Meeting, Chicago, Illinois; March 25, 2007
371. Eli Lilly Lectureship, Yale University, New Haven, Connecticut; April 4, 2007
372. Ingersoll Lectureship, Vanderbilt University, Memphis, Tennessee; April 23, 2007
373. Dauben Lectureship, University of Washington, Seattle, Washington; April 30-May 1, 2007
374. **National Organic Symposium, Raliegh-Durham, North Carolina; June 3-7, 2007**
375. **Merck Research Laboratories, Chemistry Council Conference, Val David, Quebec, Canada; June 24-28, 2007**
376. **International Conference on Heterocyclic Chemistry XX, Sydney, Australia; July 16, 2007**
377. **Tetrahedron Symposium, 234th ACS Meeting Boston, Massachusetts; August 20, 2007**
378. Gordon Hodson Lecturer, GlaxoSmithKline, Raleigh-Durham, North Carolina; October 5, 2007
379. Universität Münster, Münster, Germany; October 25, 2007
380. Max Planck Institut fur Kohlenforschung, Mühlheim, Germany; October 26. 2007
381. Prelog Medal Lectureship, ETH-Zürich, Zürich, Switzerland; October 29, 2007
382. GlaxoSimthKline, King of Prussia, Pennsylvania; December 6, 2007
383. Wyeth Pharmaceuticals, Princeton, New Jersey; December 7, 2007
384. Wyeth Research Lecture, Princeton University, Princeton, New Jersey; December 7, 2007

2008

385. University of Missouri, Columbia, Missouri; April 4, 2008
386. Organic Chemistry Day, University of Missouri, Columbia, Missouri; April 5, 2008
387. **Franklin Award Symposium, Philadelphia, Pennsylvania; April 16, 2008**
388. PTC Therapeutics, South Plainfield, New Jersey; April 17, 2008

389. University of Toronto, Toronto, Canada; May 7, 2008
390. Eli Lilly Lecturer, York University, York, Canada; May 8, 2008
391. Abbott Lecturer, Massachusetts Institute of Technology, Cambridge, Massachusetts; May 22, 2008
392. BOSS-11, Ghent, Belgium; July 11-17, 2008
393. Janssen Pharmaceutica, NV, Beerse, Belgium; July 18, 2008
394. Lexicon Pharmaceuticals, Princeton, New Jersey; September 12, 2008
395. ACS Prospective 2008 Symposium on Process Chemistry, Cambridge, Massachusetts; September 28-29, 2008
396. Gilead Sciences Inc., Foster City, California; November 13, 2008.
397. Boehringer Ingelheim, Ridgefield, Connecticut; December 12, 2008

2009

398. 1st Global Center of Excellence Symposium, Nagoya, Japan; January 12-13, 2009
399. Tokyo Institute of Technology, Tokyo, Japan; January 14, 2009
400. University of Tokyo, Tokyo, Japan; January 15, 2009
401. BMS Lecturer, Scripps Research Institute, San Diego, California; February 13, 2009
402. H. C. Brown Award Symposium, ACS Meeting Salt Lake City, Utah; March 22-25, 2009
403. Indiana University, Bloomington, Indiana; April 13, 2009
404. Lemieux Lecturer, University of Ottawa, Ottawa, Canada; April 24, 2009
405. Organic Reactions and Processes GRC, Salve Regina, Rhode Island; July 19-24, 2009
406. International Conference on Heterocyclic Chemistry 22, St. Johns, Newfoundland, Canada; August 2-7, 2009
407. Novartis Lecturer, Boston College, Waltham, Massachusetts; September 16, 2009
408. University of East Anglia, East Anglia, England; November 2, 2009
409. University of Edinburgh, Edinburgh, Scotland; November 4, 2009
410. University of Glasgow, Glasgow, Scotland; November 5, 2009
411. University of Newcastle, Newcastle, England; November 6, 2009
412. University of Cardiff, Cardiff, Wales; November 9, 2009
413. University of Birmingham, Birmingham, England; November 11, 2009
414. University of Oxford, Oxford, England; November 13, 2009
415. University of Arizona, Tuscon, Arizona; December 3, 2009

2010

416. Technion, Haifa, Israel; January 24, 2010
417. Israel Chemical Society, Tel Aviv, Israel; January 25, 2010
418. University of Wisconsin, Madison, Wisconsin; March 2, 2010
419. University of California, Irvine, Irvine, California; April 7, 2010
420. Syngenta, Jealot's Hill, England; April 12, 2010
421. Bristol Synthesis Meeting, University of Bristol, England; April 13, 2010
422. UK Symposium on Physical Organic Chemistry, University of Bristol, England; April 14, 2010
423. H. C. Brown Lectureship, Purdue University, West Lafayette, Indiana; April 24, 2010
424. Karl Ziegler Lectureship, Max Planck Institute for Kohlenforschung, Mülheim, Germany; May 3-7, 2010
425. Natural Products GRC, Tilton, New Hampshire; July 25-29, 2010
426. Merck and Co., Boston, Massachusetts; November 2, 2010
427. Symposium on Cooperative Catalysis, PacificChem, Honolulu, Hawaii; December 16-18, 2010

2011

428. IMRE A-STAR, Biopolis, Singapore; January 25, 2011
429. ICES A-STAR, Biopolis, Singapore; January 26, 2011
430. National University of Singapore, Singapore, Singapore; January 26, 2011
431. Murtiashaw Lecturer, University of South Carolina, Columbia, South Carolina; March 21, 2011

432. McRae Lectureship in Organic Chemistry, Queen's University, Kingston, Ontario, Canada; April 1, 2011
433. First Mexican Meeting on Pure and Applied Chemistry, Mexico City, Mexico; May 18, 2011
434. Canadian Society of Chemistry Meeting, Montreal, Canada; June 9, 2011
435. McGill University, Montreal, Canada; June 10, 2011
436. **International Conference on Heterocyclic Chemistry 23, Glasgow, Scotland; August 2, 2011**
437. Backer Lecture in Organic Chemistry, University of Groningen, Groningen, The Netherlands; September 12, 2011
438. University of Amsterdam, Amsterdam, The Netherlands; September 13, 2011
439. University of Nijmegen, Nijmegen, The Netherlands; September 14, 2011
440. Illinois State University, Bloomington-Normal, Illinois; September 29, 2011
441. Syngenta-Ecole Polytechnique Lectureship, Palisseau, France; October 17, 2011
442. Université Paris-Sud, Orsay, France; October 18, 2011
443. EPSCI, Paris, France; October 19, 2011
444. Syngenta, Stein, Switzerland; October 20, 2011
445. Debye Lectures, Cornell University, Ithaca, New York; October 31-November 1, 2011
446. Novartis Lectureship in Organic Chemistry, Northwestern University, Evanston, Illinois; November 17, 2011

2012

447. J. F. Norris Symposium, ACS Meeting, San Diego, California; March 25, 2012
448. David Gin Symposium, ACS Meeting, San Diego, California; March 27, 2012
449. Stereochemistry GRC, Salve Regina, Newport, Rhode Island; July 29-August 3, 2012
450. 16th Reed Lecture, Rensselaer Polytechnic Institute, Troy, New York; September 25, 2012
451. University of North Carolina-Chapel Hill, Chapel Hill, North Carolina; October 5, 2012
452. University of Texas-Austin, Austin, Texas; November 16, 2012

2013

453. Wake Forest University, Winston-Salem, North Carolina; March 25, 2013
454. H. C. Brown Award Symposium, ACS Meeting, New Orleans, Louisiana; April 8, 2013
455. Bürgenstock Conference on Stereochemistry, Brunnen, Switzerland; April 28-May 2, 2012
456. Givaudan-Karrer Lectureship, University of Zürich, Zürich, Switzerland; May 6-17, 2013
457. Oxford Synthesis Meeting, Oxford, United Kingdom; July 22-25, 2013
458. 3eme Cycle Summer School, Villars, Switzerland; August 12-16, 2013
459. Amgen, Thousand Oaks, California; September 27, 2013
460. Richard, T. Arnold Lectureship, Southern Illinois University Carbondale, Carbondale, Illinois; October 11, 2013
461. Northern Illinois University, Dekalb, Illinois; October 28, 2013
462. Memorial Sloan Kettering Institute, New York, New York; November 25, 2013
463. Amgen, San Francisco, California; December 5, 2013

2014

464. Ludwig Maximilian University, Munich, Germany; January 21, 2014
465. Technical University, Munich, Germany; January 22, 2014
466. Boehringer-Ingelheim, Biberach, Germany; January 23, 2014
467. University of California, San Diego, La Jolla, California; February 10, 2014
468. Zing Asymmetric Synthesis Conference, Malaga, Spain; February 25-28, 2014
469. Frederick Stanley Kipping Award Symposium, ACS Meeting, Dallas, Texas; March 16-20, 2014
470. Connecticut Organic Chemistry Symposium, New Haven, Connecticut; March 21, 2014
471. Texas A&M University, College Station, Texas; April 10-11, 2014
472. Merck Research Laboratories, Rahway, New Jersey; May 15, 2014
473. 7th European Silicon Days, Berlin, Germany; August 3-8, 2014

474. **Emerging Frontiers in Synthesis: Transformative Advances in Reagent Based Organic Synthesis, ACS Meeting, San Francisco, California; August 19, 2014**
475. Dow Corning, Midland, Michigan; October, 16, 2014

2015

476. Scripps Research Institute, Jupiter, Florida; January 19, 2015
477. **Harry and Carol Mosher Award Symposium, Santa Clara, California; January 29, 2015**
478. **Pfizer Lectureship, Harvard University, Cambridge, Massachusetts; February 9, 2015**
479. Bayer Pharma, Elberfeld, Germany; February 17, 2015
480. BASF, Ludwigshafen, Germany; February 18, 2015
481. **Organic Syntheses Lectureship, Duke University, Chapel Hill, North Carolina; April 2, 2015**
482. **22nd Lakeland Heterocyclic Symposium (2015), Grasmere, United Kingdom; May 7-11, 2015**
483. **Great Lakes Regional Meeting, Grand Rapids, Michigan; May 27, 2015**
484. **16th Tetrahedron Symposium: 16th Tetrahedron Symposium Challenges in Bioorganic & Organic Chemistry, Berlin, Germany; June 16-19, 2015**
485. Janssen Pharmaceutica NV., Beerse, Belgium; June 19, 2015
486. Organic Reactions and Processes GRC, Lewiston, Maine; July 19-23, 2015
487. **NSFC-RSC International Symposium on Emerging Frontiers in Organic Synthesis Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, Shanghai, China October 8–10, 2015.**
488. Michigan State University, East Lansing, MI; October 14, 2015

2016

489. Ernst Guenther Symposium, ACS Meeting, San Diego, California; March 14, 2016
490. Janssen Research and Development, La Jolla, CA; March 28, 2016
491. Richard F. Heck Lectureship, University of Delaware, Newark, DE; April 20, 2016
492. **AnorcQ 13 Symposium, Rouen, France; April 24-27, 2016**
493. Merck Research Laboratories, West Point, PA; May 10, 2016
494. Osaka University, Osaka, Japan; May 20, 2016
495. Kyoto University, Kyoto Japan; May 21, 2016
496. Nagoya University, Nagoya; Japan, May 22, 2016
497. **13th International Conference on the Chemistry of Selenium and Tellurium (ICCST-13) Gifu, Japan; May 23-27, 2016.**
498. University of Fribourg, Fribourg, Switzerland; June 23, 2016
499. University of Neuchatel, Neuchatel, Switzerland; June 24, 2016
500. **7th annual August M. Watanabe Symposium, Indiana University, Bloomington, IN; October 8, 2016**
501. New York University, New York, NY; September 30, 2016
502. University of New Mexico, Albuquerque, NM; November 11, 2016

2017

503. Hoffmann-LaRoche Company, Basel, Switzerland, January 20, 2017
504. University of California-Irvine, Irvine, CA, February 9, 2017
505. Merck Research Laboratories, Kenilworth, NJ, February 16, 2017
506. Scripps Research Institute, La Jolla, CA, March 20, 2017
507. Gilead Sciences, Foster City, CA, May 22, 2017
508. **University of Laval, Quebec City, Quebec, Canada, June 6, 2017**
509. **University of Sherbrook, Sherbrook, Quebec, Canada, June 7, 2017**
510. **University of Montreal, Montreal, Quebec, Canada June 8, 2017**
511. **Computational Design of Catalysis, ACS Meeting, Washington DC, August 20, 2017.**
512. **7th International Symposium on "Advances in Synthetic and Medicinal Chemistry". EFMC-ASMC'17 Vienna, Austria, August 27 - 31, 2017.**

513. Janssen Pharmaceutica NV., Beerse, Belgium; September 1, 2017,
514. **The International Symposium on Synthesis & Catalysis ISySyCat2017, University of Evora, Evora, Portugal, September 5-8, 2017.**
515. Bristol-Myers-Squibb, New Brunswick, NJ, September 14, 2017
516. New York Univeristy, New York, NY, September 15, 2017
517. Peking University, China, September 20, 2017
518. Tsinghua University, China, September 21, 2017
519. **Asymchem Symposium, Beijing, China, September 22, 2017**
520. ACS Southwest Regional Meeting, Texas Tech University, El Paso, Texas, October 31, 2017

2018

521. Stauffer Lectureship, Stanford University, Stanford, CA, Feburary 13-15, 2018
522. Eschenmoser Lecturer, ETH-Zürich, Zürich, Switzerland, March 12, 2018
523. University of Zürich, Zürich, Switzerland, March 13, 2018
524. **At the Frontier of Stereoselective Alkene Halofunctionalization, ACS Meeting, New Orleans; March 19, 2018**
525. Heathcock Lecturer, University of California-Berkeley, Berkeley, CA, April 24, 2018
526. Pfizer Lecturer, MIT, Cambridge, MA, May 3, 2018
527. Sandin Lectureship, Univeristy of Alberta, Edmonton, Alberta, Canada, May 22-24, 2018
528. **International Symposium on Reactive Intermediates and Unusual Molecules (ISRIUM) Ascona, Switzerland, July 15-20, 2018.**
529. Stereochemistry GRC, Salve Regina, Newport, Rhode Island; July 22-July 26, 2018
530. University of Missouri-St. Louis, St. Louis, MO, September 17, 2018
531. Ninth Biennial Eisch Lectureship in Organic Chemistry, SUNY-Binghamton, Binghamton, NY, September 21, 2018
532. Organic Reactions Symposium, Univeristy of Michigan, Ann Arbor, MI, October 1, 2018
533. Hoffmann-La Roche-Basel, Basel, Switzerland, October 11, 2018
534. Celgene Corporation, Cambridge, MA, November 1, 2018
535. Merck South San Francisco, CA, November 15, 2018
536. Janssen Research and Development, La Jolla, CA; December 7, 2018

2019

537. Osaka University, Osaka, Japan, March 27, 2019
538. Kyoto University, Kyoto, Japan, March 28, 2019
539. **Ueki Symposium, Nagoya University, Nagoya, Japan, March 29, 2019**
540. University of Bologna, Bologna, Italy, May 2, 2019
541. **Giorgio Modena Symposium, University of Padova, Padova, Italy, May 3, 2019**
542. Janssen Research and Development, La Jolla, CA; June 7, 2019
543. Genentech, South San Francisco, CA; June 21, 2019
544. Merck Research Laboratories, Boston, MA, July 8, 2017
545. Merck Research Laboratories, West Point, PA, August 6, 2019
546. The *Journal of Organic Chemistry* Outstanding Publication of the Year Award Lecture; ACS National Meeting, San Diego, CA, August 25, 2019
547. **Wenner-Gren Symposium, Stockholm University, Stockholm, Sweden, September 4-7, 2019**
548. University of Alabama, Birmingham, AL, October 17, 2019.
549. National Taiwan University, Taipei, Taiwan, December 9, 2019
550. **Asian Chemical Conference-18, Taipei, Taiwan, December 8-12, 2019**
551. National Tsing Hua University, Hin Shu, Taiwan, December 11, 2019

2020

552. Noyori Prize Symposium, Tokyo, Japan, February 19, 2020
553. University of Tokyo, Tokyo, Japan, February 20, 2020

2021

554. Beilstein Organic Chemistry Symposium, Ruedesheim, Germany
555. The 11th SFB-Symposium, Münster, Germany
556. Bohlmann Lectureship, Technical University of Berlin, Berlin, Germany