



The Department of
Chemistry presents the
**2025 Fred Pattison
Lecturer**

**Dr. Melanie Sanford
Professor
University of Michigan**

**A two-part lecture series on
May 5th and 6th
2:30-4:00pm - 3M Centre 3250**

Western



Contact Information

Dr. Marcus W. Drover (host)
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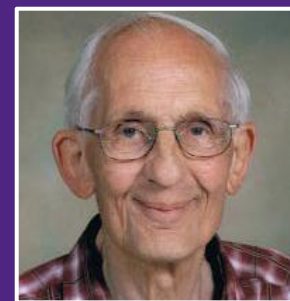
Previous Lectureships

- 1992 Sir Derek Barton (Texas A&M)
- 1993 Barry Trost (Stanford)
- 1995 Stephen Benkovic (Penn State)
- 1996 V. Ley (Cambridge)
- 1997 Anthony J. Kirby (Cambridge)
- 1998 Larry E. Overman (UC Irvine)
- 1999 Sir Fraser Stoddart (Northwestern)
- 2000 Dennis Curran (UPitt)
- 2001 Joseph Lambert (Northwestern)
- 2002 Anthony Barrett (Imperial College)
- 2003 Richard Wolfenden (UNC Chapel Hill)
- 2004 Victor Snieckus (Queens)
- 2005 Lutz F.Tietze (Georg-August Univ.)
- 2006 Juan C. (Tito) Scaiano (UOttawa)
- 2007 Francois Diederich (ETH Zurich)
- 2008 Erik J. Sorensen (Princeton)
- 2009 Chad A. Mirkin (Northwestern)
- 2010 Dennis Dougherty (Caltech)
- 2011 Guy Bertrand (UC Riverside)
- 2013 Darren Dixon (Oxford)
- 2014 Stephen Hashmi (Heidelberg)
- 2015 Craig Hawker (UC Santa Barbara)
- 2016 Michael Sherburn (ANU)
- 2024 Jenny Yang (UC Irvine)

*Light snacks and refreshments will be served
30 mins prior to each lecture*

If you require this information in an alternative format, or if any other arrangements can be made to make this event more accessible, please contact us.

Fred L. M. Pattison



(1923–2010) Fred Pattison was born in Scotland, where he received his early education. He enrolled at the University of Cambridge in England in 1941 to study Natural Science. Fred remained there to obtain a Ph.D. in Organic Chemistry

under the supervision of Dr. B.C. Saunders. He then moved to Halifax, Nova Scotia to lecture at Dalhousie University for a year before joining Western in 1948 as an Assistant Professor of Chemistry.

Fred established a Ph.D. program in the department. His research on biologically active organic fluorine compounds produced many scientific papers, garnered the award of an Sc.D. by the University of Cambridge, and resulted in the publication of a book, Toxic Aliphatic Fluorine Compounds. In 1959, he became Professor and Head of the Department, and he presided over the expansion of the department and its move to new facilities.

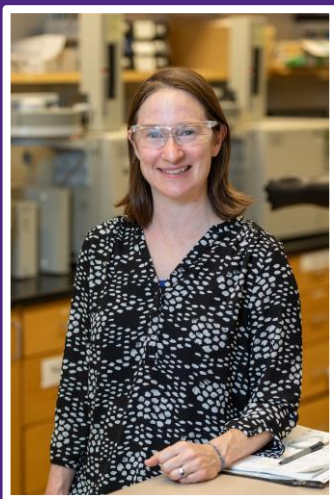
In 1965, Fred decided on a career change. At the age of 42, he enrolled at Western as a first-year medical student. After completing his M.D. four years later, he interned at St. Joseph's Hospital in London and served for a year as resident in the Family Practice Program. As well, he was enrolled in a diploma program in venereology at the University of Liverpool. In 1971–73, Fred followed up a long-standing interest in the peoples of Canada's North by working with the International Grenfell Association. He provided solo medical care to about 6,000 people scattered along 120 miles of the Atlantic coast of Newfoundland.

Fred returned to London in 1973, when he joined Western's Student Health Services, holding the position of Director at his formal retirement in 1988. During the same period, he was a clinical assistant professor in the Faculty of Medicine, giving instruction in venereology, and director of the Middlesex-London Sexually Transmitted Disease Clinic.

After retiring, Fred was able to resume his connection with the Chemistry Department as Professor Emeritus. In light of his long service and many contributions to chemistry and medicine at Western, it is entirely fitting that the department dedicate a lecture series bearing his name.

Dr. Melanie Sanford

University of Michigan



Biography

The 2024 Fred Pattison Senior Lecturer is Melanie Sanford, the current Moses Gomberg Distinguished University Professor of Chemistry and Arthur F. Thurnau Professor of Chemistry at the University of Michigan, Ann Arbor. She received her B.S. and M.S. degrees at Yale University in 1996 where she carried out undergraduate research in the laboratory of Professor Robert Crabtree. She pursued graduate studies at the California Institute of Technology working with Professor Robert Grubbs. Following postdoctoral work at Princeton University with Professor John Groves, she joined the faculty at the University of Michigan in the summer of 2003 as an Assistant Professor of chemistry. She was promoted to associate professor in 2007, to full professor in 2010, to Arthur F. Thurnau Professor in 2011, and to Moses Gomberg Distinguished University Professor of Chemistry in 2016.

Western



Seminar #1 New Synthetic Methods for C–F Bond Formation: From Fundamental Science to Applications

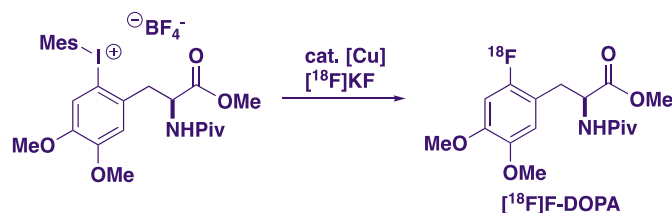
Monday, May 5th, 3:00pm

Room 3250, 3M Center

Refreshments at 2:30 pm
followed by lecture at 3:00

Abstract

This presentation will describe our group's recent advances in developing synthetic methods for introducing fluorine into organic molecules. Our efforts into this area are guided by detailed fundamental studies of stoichiometric organometallic bond-forming reactions. These fundamental studies will be described in detail, and their translation to practical applications (particularly in the context of the synthesis of PET imaging agents) will be discussed.



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Seminar #2 Synthesis, Reactivity, and Catalytic Relevance of High Valent Transition Metal Organometallic Complexes

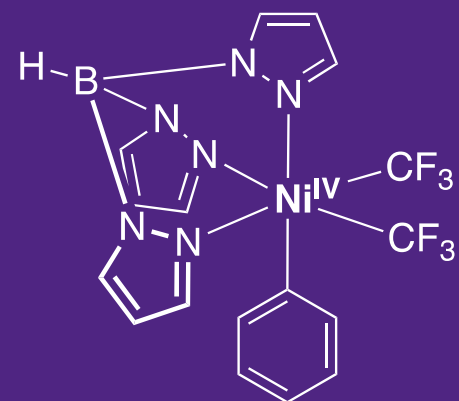
Tuesday, May 6th, 3:00pm

Room 3250, 3M Center

Refreshments at 2:30 pm
followed by lecture at 3:00

Abstract

This presentation will describe our group's recent advances in the design and synthesis of high valent Pd, Ni, and Cu complexes. These M(III) and M(IV) complexes serve as models for catalytic intermediates in a wide variety of Pd, Ni, and Cu-catalyzed transformations. Novel reactivity of these complexes as well as their applications in catalysis will be discussed.



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