



**Dow/Karabatsos  
Distinguished Lectureship**  
in the  
**Chemical Sciences**

Presents

**Professor  
Daniel A. Singleton**

Professor of Chemistry  
and  
Davidson Professor of Science  
Texas A&M University

Sponsored by:  
The Dow Chemical Company  
and the  
MSU Department of Chemistry

November 2, 3, and 4, 2010

**Previous  
Dow/Karabatsos  
Lecturers**

1981	George A. Olah*
1982	Gabor A. Somorjai
1983	Allen J. Bard
1984	John H. Sinfelt
1985	Robert G. Bergman
1986	Paul von R. Schleyer
1987	Robert H. Grubbs*
1988	F. Albert Cotton
1989	Julius Rebek
1990	Tobin J. Marks
1991	Nicholas J. Turro
1992	Marye Anne Fox
1993	Richard H. Holm
1994	John I. Brauman
1995	Josef Michl
1996	JoAnne Stubbe
1997	Dale L. Boger
1998	Fred W. McLafferty
1999	Daniel G. Nocera
2000	K. C. Nicolaou
2001	Richard R. Schrock*
2002	Jean M.J. Fréchet
2003	Robert H. Grubbs*
2004	Galen D. Stucky
2005	Donald A. Tomalia Emmanuel P. Giannelis Andrew Ellington Joseph A. Caruso Larry R. Dalton
2006	Sidney M. Hecht
2007	John E. Bercaw
2008	Peter J. Stang
2009	David W. C. MacMillan

\*Nobel Prize Winner

**The Dow/Karabatsos  
Distinguished Lectureship**

The Dow/Karabatsos Lecture Series in the Chemical Sciences has enriched the experience of workers in the chemical sciences at MSU for thirty years, as of this year. As is evident from the list of distinguished speakers, this lectureship has provided opportunities for students and faculty to interact with outstanding researchers from all areas of chemistry. We are grateful to Dow for their ongoing support that permits us to continue the tradition of extending invitations to outstanding scholars and teachers such as Professor Singleton. The Department has started an endowment for this lecture series in honor of Professor Gerasimos J. Karabatsos.



## Lecture Topics

Tuesday, November 2, 2010  
4:20 pm, Room 101 Biochem.

**“Transition States:  
Chasing the Reality and  
Non-reality of a Model”**

Wednesday, November 3, 2010  
4:20 pm, Room 136 Chemistry

**“Unusual Mechanisms,  
Unusual Isotope Effects”**

Thursday November 4, 2010  
4:20 pm, Room 136 Chemistry

**“Non-Statistical Rates  
and Selectivities in Simple  
Organic Reactions”**



**D**aniel A. Singleton was born in 1959 in Cambridge, Ohio. He earned a B.S. degree in chemistry from Case Western Reserve University in 1980, then worked as a research chemist for General Electric Central Research and Development in Schenectady, New York, until 1982. Dr. Singleton obtained his Ph.D. in 1986 from the University of Minnesota, working in the laboratory of Paul Gassman. He then worked with Barry Trost at the University of Wisconsin as an NIH Postdoctoral Fellow. In 1987, he joined the Department of Chemistry at Texas A&M University, where he is currently Professor of Chemistry and Davidson Professor of Science.

Dr. Singleton's early academic career involved the development of organic synthetic methodology, but for the past 15 years his work has been centered in physical organic chemistry. This change was led by his group's development in 1995 of methodology for the rapid high-precision determination of kinetic isotope effects at natural abundance. This methodology has been applied in mechanistic studies of a variety of organic, organometallic, and bioorganic reaction mechanisms. These studies have often encountered experimental observations that could not be accounted for by conventional mechanistic ideas, and this has led to the current focus of his group on dynamic effects in organic reactions.

Dr. Singleton was honored by the American Chemical Society with an Arthur C. Cope Scholar Award in 2008. At Texas A&M, Dr. Singleton has been honored by the Association of Former Students with Distinguished Teaching Awards in 1995 and 2008, and by being named a University Faculty Fellow in 2001. Since 2005, Dr. Singleton has served as an Associate Editor for The Journal of Organic Chemistry. Dr. Singleton is also the owner of Process Origins, a small company that applies his isotopic analysis methodology to uncover the chemical processes by which end-product pharmaceuticals have been made.