

# Center for Dynamics and Control of Materials: *MRSEC Seminar*

## AZOBENZENE – The Enigmatic and Ubiquitous Photoswitch

Thursday, November 16<sup>th</sup>, 9:30 am-10:30 am

Texas Innovation Center in EER – Same time and place as the IRG 1 meetings!

Azobenzene was first reported 1834 and the number of publications citing azobenzene continues to grow each year with over 1000 citations last year. The continued interest in azobenzene is due to the photostability and applications in complex systems where photoisomerization can cause significant changes in the activity of the system. The talk will present a physical organic approach to isomer-dependent properties of azobenzene that includes basic properties such as melting behavior, micellization and aqueous solubility. Studies of azobenzene photoliquefaction, solar energy storage, photopharmacology and mechanoisomerization will also be discussed.



Brittain received his graduate training at Caltech with John D. Roberts and postdoctoral training with Ned Porter at Duke University. He spent six years at DuPont's Central Research and Development working on mechanistic studies. Brittain joined the Department of Polymer Science at The University of Akron in 1990, became full professor 1997 and served as Department Chair during 1998-2001. Brittain was elected Chair of the American Chemical Society Polymer Chemistry Division in 2000. In 2006, he became Vice-President for Global Research at Bausch & Lomb. After two years, he moved to Washington, DC to become a program officer at The National Science Foundation with principal responsibilities to Center Programs in materials and chemistry. In 2010, he joined Texas State University where he has served as department chair. Brittain was a visiting professor at IMTEK in Freiburg, Germany during 2016-2017, named a Fellow of ACS Division of Polymer Chemistry and received the Polymer Division Distinguished Service Award in 2001. He has also received the GenCorp Signature Research Award and was named the Outstanding Researcher of the Year at The University of Akron in 2001. Texas State named him a Distinguished Professor in 2018 and Regent's Professor in 2019. Sadly, he loves chemistry so much that he can't cite any outside interests.

### William Brittain, PhD



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