

**Dienstag, 15.05.2012**

**Hörsaal D, Chemie Zentralbau, 17:15 Uhr**

**Sprecher: Jan Helbing**  
*Physikalisch-chemisches Institut,  
Universität Zürich*

**Thema: Optical Activity and Linear  
Dichroism in Time-Resolved IR-  
Spectroscopy – New Methods and  
Challenges**

**Abstract:** Vibrational transitions are sensitive reporters of molecular structure, making time-resolved infrared spectroscopy a powerful tool for probing chemical dynamics. Both transient absorption and 2D-IR techniques use linearly polarized light to directly access intramolecular angles. On the other hand, vibrational circular dichroism, the difference in absorption of left- and right handed circular polarized light, is a unique probe of the absolute configuration and conformation of chiral molecules in equilibrium. After presenting recent examples that illustrate the power of these methods, I will discuss our progress and challenges in optimizing polarization schemes to measure vibrational optical activity with high time resolution, and to significantly improve the sensitivity of transient and multi-dimensional IR spectroscopy.

**Organisation: P. Nürnberger**

Kontakt: Prof. Dr. Tobias Brixner, Institut für Physikalische und Theoretische Chemie,  
[brixner@phys-chemie.uni-wuerzburg.de](mailto:brixner@phys-chemie.uni-wuerzburg.de)

Weitere Informationen unter  
<http://www.phys-chemie.uni-wuerzburg.de>