



# Midwest Astrochemistry Meeting 2009

## Schedule

### Friday, 6 November 2008

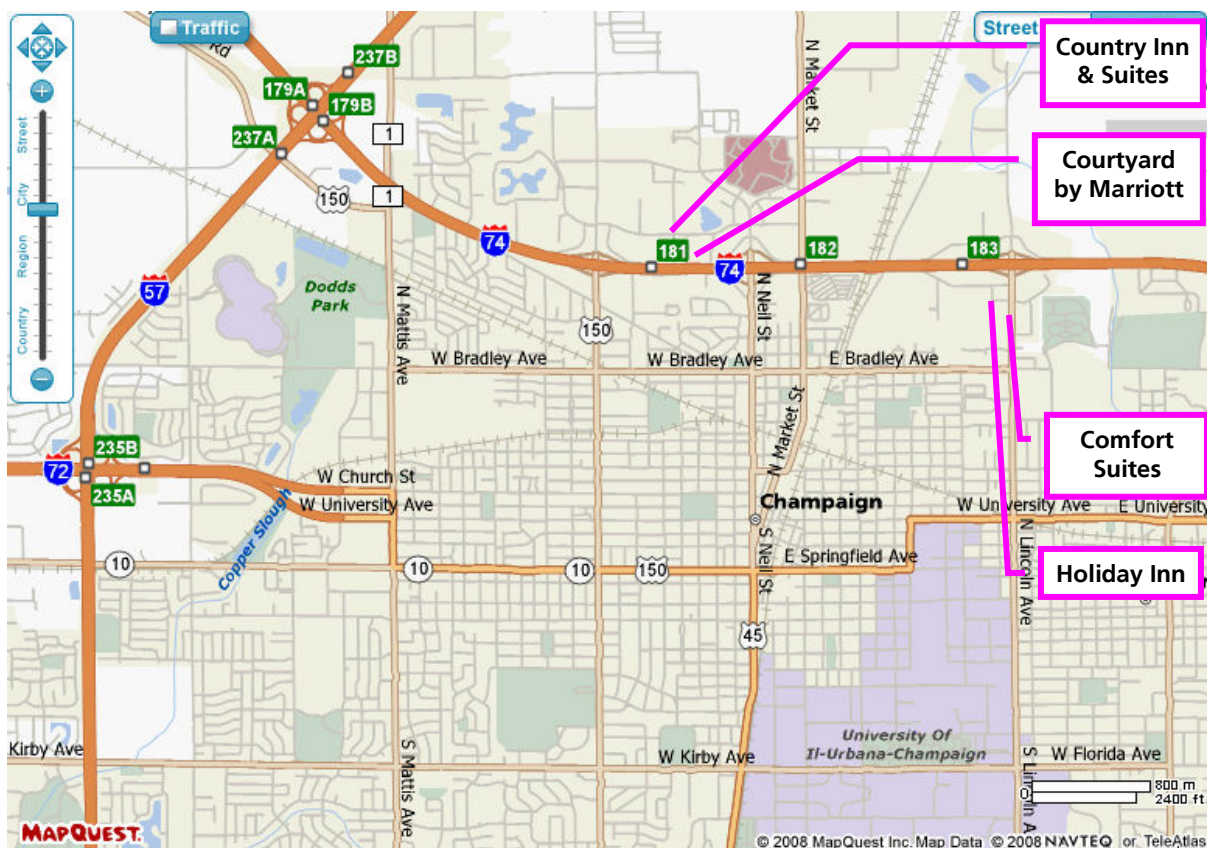
The poster session will be held in the lobby of the National Center for Supercomputing Applications (NCSA) building at the north end of the UIUC campus. The registration table will open at 5 PM, at which time posters can be hung. Pizza and beverages will be available starting around 6 PM. The poster session will begin whenever people are ready to begin!

### Saturday, 7 November 2008

The oral sessions will be held in room 116 of Roger Adams Laboratory on the east side of the central part of the UIUC campus. The building's northeast door will be unlocked by 8 AM. The first session will begin at **8:45 AM**. There will be a mid-morning break with coffee and snacks, and lunch will be provided in the form of box lunches. The meeting is scheduled to adjourn at **2:30 PM**.

(see next two pages for maps)

## MWAMog – Area Map



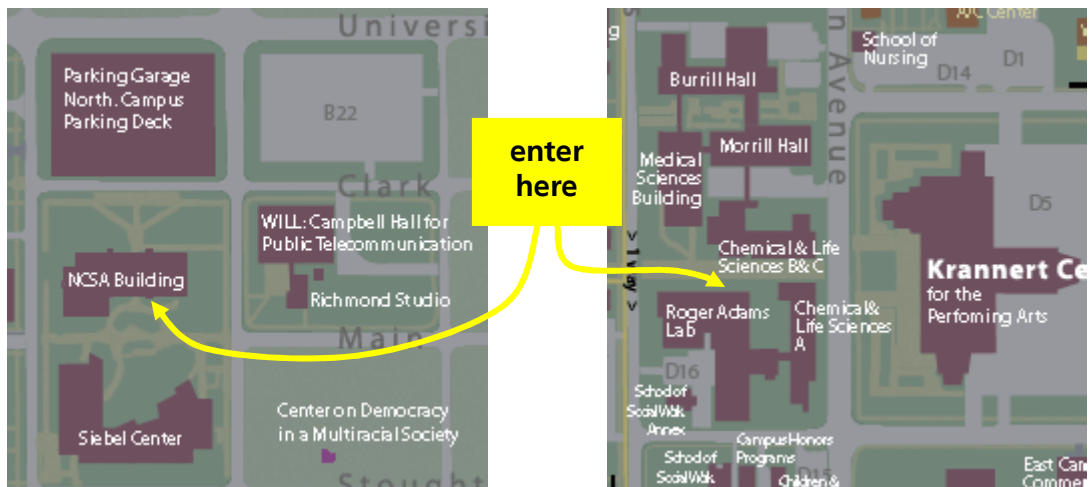
The quickest access to campus is to use exit 183 from I74 to Lincoln Ave.

To reach the NCSA building, drive south on Lincoln to University Ave. Turn right (west) on University, then left (south) onto Goodwin. You may park in the parking garage on the right (B4) and or Lot B22 on the left.

To reach Roger Adams Laboratory, take Lincoln south to Illinois St. Turn right (west) onto Illinois St. You may park in the Krannert Center garage (D5) or in Lot D1 at the northeast corner of Goodwin and Illinois. Be warned that there is construction on Goodwin from Springfield south to Gregory.

***PARKING:*** Unless the sign for the lot says otherwise, campus lots are open to public parking after 4 PM and on the weekend. Don't park at a meter.

# MWAMog – Campus Maps



download full UIUC campus maps from <http://illinois.edu/ricker/CampusMap>

## Poster Session – 6 November 2009

- P01 **Mid-Infrared Continuous Wave Cavity Ringdown Spectrometer for Acquisition of the High-Resolution Spectrum of C<sub>60</sub>**  
*B. E. Brumfield, J. Stewart, and B. J. McCall*
- P02 **Studies on the Bergman Cyclization and Cyclobutadienes**  
*J. L. Menke, A. M. Nolan, K. Windsor, B. J. Esselman, and R. J. McMahon*
- P03 **Thermal Processing of CO<sub>2</sub> Ice Around Massive Young Stellar Objects in the LMC**  
*J. P. Seale, L. W. Looney, R. Chen, Y.-H. Chu, and R. A. Gruendl*
- P04 **Synthesis and Spectroscopy of Highly-Unsaturated Carbon Chain Molecules: Species of Relevance to the Interstellar Medium**  
*C. J. Shaffer, N. J. Burrmann, and R. J. McMahon*
- P05 **Ultraviolet Transitions in C<sub>2</sub>**  
*Y. Sheffer, R. Hupe, and S. R. Federman*
- P06 **The Performance of a Continuous Supersonic Expansion Discharge Source**  
*C. A. Kauffman, K. N. Crabtree, and B. J. McCall*
- P07 **DIBSyRCH: The Diffuse Interstellar Band Synchrotron Radiation Carrier Hunt: Naphthalene Clusters**  
*M. H. Stockett, M. P. Wood, and J. E. Lawler*
- P08 **Chemistry in the Molecular Disks of Active Galactic Nuclei**  
*N. Harada and E. Herbst*
- P09 **The Effect of YSO Environment and Evolutionary Status on Volatile Composition in the Rho Ophiuchi Region**  
*K. A. Woitkowski, E. L. Gibb, and S. S. Shenoy*
- P10 **A Hybrid Approach of Rate Equations and Moment Equations to Treat Gas-Grain Chemistry for Large Reaction Networks**  
*Y. Pei and E. Herbst*
- P11 **Probing Massive Protocluster-forming Cores around IRAS 05345+3157**  
*K. I. Lee, L. W. Looney, R. Klein, and S. Wang*

- P12 **Millimeter-wave Rotational Spectroscopy of Pyridine ( $C_5H_5N$ ), Pyridazine ( $C_4H_4N_2$ ), and Their Discharge Products with Efforts toward Phenyl Radical ( $C_6H_5$ ), *ortho*-Benzyne (*o*- $C_6H_4$ ), Protonated Benzene ( $C_6H_7^+$ )**  
*B. J. Esselman, B. K. Amberger, M. A. Daane, R. C. Woods, and R. J. McMahon*
- P13 **Properties and Structural Isomers of Hydronaphthyl Resonance-Stabilized Radicals and Their Role in the Formation of PAHs in Titan's Atmosphere**  
*J. A. Sebree and T. S. Zwier*
- P14 **The Chemical Evolution of Cores within Infrared Dark Clouds**  
*E. T. Chambers, J. M. Jackson, S. C. Finn, J. M. Rathborne, and R. Simon*
- P15 **A Unified Monte Carlo Treatment of Gas-Grain Chemistry in Clouds and Disks**  
*A. I. Vasyunin, R. T. Garrod, D. S. Wiebe, D. A. Semenov, and Th. Henning*
- P16 **Quantum Chemical Predictions of Dipole Moments and Dipole Polarizabilities for Known and Postulated Astromolecules**  
*D. E. Woon and E. Herbst*

## Schedule for Oral Sessions – 7 November 2009

- 8:45-9:45                    **BILL WATSON MEMORIAL SESSION – Chair: Benjamin McCall**
- W01    **Bill Watson's Unusual Career Path to the Beginning of Modern Astrochemistry**  
L. Snyder
- W02    **Watson and the Polarization of Interstellar Molecular Lines**  
R. Crutcher
- W03    **Bill Watson – An Appreciation**  
E. Herbst
- 9:45-10:15                    **BREAK**
- SESSION TWO – Chair: Eric Herbst**
- 10:15-11:00    I01    **INVITED TALK – The Role of Structural Isomers and Resonance-Stabilized Radicals in Photochemical Pathways to Fused-Ring Aromatics in Titan's Atmosphere**  
*J. A. Sebree and T. S. Zwi*
- 11:00-11:20    T01    **A Search for Interstellar Urea with CARMA and the IRAM 30 m**  
*H.-L. Kuo, L. E. Snyder, D. N. Friedel, L. W. Looney, B. J. McCall, A. J. Remijan, F. J. Lovas, and J. M. Hollis*
- 11:20-11:40    T02     **$\beta$ -Aminoacrylamide. Ab initio Study of a Fluxional Diamine with Nonlocal Anharmonicities and Extremely-Low-Barrier Double-Wells**  
*R. Glaser, Y. Liu, W. Wycoff, and S. Montgomery-Smith*
- 11:40-12:00    T03    **Quantum Chemical Studies of Ice-Bound Reactions of Carbonyl-Containing Species (Formaldehyde, Acetaldehyde, and Acetone) with Ammonia**  
*L. Chen and D. E. Woon*
- 12:00-1:10                    **LUNCH & MWAC EXECUTIVE SESSION**

**SESSION THREE – Chair: David Woon**

- 1:10-1:30      T04    **Long-Range Transition State Theory at Low Temperatures**  
*Y. Georgievskii and S. J. Klippenstein*
- 1:30-1:50      T05    **Utilizing N<sub>2</sub>H<sup>+</sup> to Probe Protostellar Envelopes: the Case of L1157**  
*H.-F. Chiang, L. W. Looney, J. J. Tobin, and L. Hartmann*
- 1:50-2:10      T06    **Simulating Dust in Protoplanetary Disks**  
*D. A. Tilley, D. S. Balsara, T. Rettig, and S. Brittain*
- 2:10-2:30      T07    **SCRIBES: Sensitive, Cooled, Resolved Ion BEam Spectroscopy**  
*H. Kreckel, A. A. Mills, M. Perera, B. M. Siller, K. N. Crabtree, C. A. Kauffman, and B. J. McCall*
- 2:30              **WRAP-UP – Benjamin McCall**