



July 25-30, 2004, Grand Hotel, Taipei, Taiwan

## **Twenty-Seventh International Symposium on Free Radicals**

### *Final Circular—Long Version*

#### *Address and Phone Numbers of the Grand Hotel*

1, Sec. 4, Chung Shan N. Rd., Taipei 104, Taiwan

TEL : 886-2-2886-8888; FAX : 886-2-2885-2885

#### *Emergency Contact Numbers during the Symposium*

Yuan-Pern Lee, 0955-010-711 (mobile); Ms. Chuang, 0939-729-958 (mobile)

Jim Lin, 0936-501-535 (mobile)

IAMS : 886-2-2366-8290 (Ms. Yang), 2-2366-8209 (Ms. Shaw), 2-2363-0578 (FAX)

#### *Payment Arrangement*

(1) You are expected to pay directly to the hotel the incidental charges, the charges for extended stay, and, if you have not paid, the charges for accommodation (minus the support from the Symposium). Credit card may be used for these charges (in NT dollars).

(2) You are expected to pay the registration fee and the tour fee to the registration desk in cash. You can either pay US dollars, Euro dollars, or NT dollars; the latter two will be converted with a favorable exchange rate and rounded to Euro\$5 or NT\$100. No check or credit card is acceptable for this part.

(3) You will receive an e-mail itemizing your payment plan. If you find any problems, please contact Y.-P. Lee ([yplee@mx.nthu.edu.tw](mailto:yplee@mx.nthu.edu.tw)) or Ms. Chuang ([scchuang@mx.nthu.edu.tw](mailto:scchuang@mx.nthu.edu.tw)) directly.

#### *Shuttle Bus between the Grand Hotel and CKS Airport*

The Toward You Air Bus Corp. (<http://www.airbus.com.tw>, 0800-088-626 or (02)2630- 9976) now operates a shuttle bus (about 40 seats) between *CKS airport* and the *Grand Hotel*. Fares are NT\$100 for adults and NT\$50 for children or adults over 65. The trip takes about 40 to 60 minutes, depending on the traffic. Under normal circumstances you need no reservation. For updated information, please contact the hotel concierge at ext. 1810. The present schedules are as follows:

From Hotel Main Entrance	From CKS Terminal 1	From CKS Terminal 2
05:40	06:30	06:20
06:40	07:30	07:20
08:40	09:30	08:20
10:40 – 20:40 every hour	11:30 – 21:30 every hour	11:20 – 21:20 every hour
22:40	23:30	23:20

You are advised to check the most updated schedule either at *CKS airport* or with the *Grand Hotel*.

### *Symposium Shuttle Bus to CKS Airport*

A special shuttle bus will be arranged to go from the *CKS airport* to the *Grand Hotel* on July 24 (Saturday) and July 25 (Sunday) at times not covered by the above *Air Bus* schedule. Please turn left and look for signs of the Symposium after you step out of the customs door. If the flight listed below is delayed, we will wait for you. If none of the bus schedule match your arrival time, please take a taxi from the airport to the *Grand Hotel* (~NT\$1300 for evening ride).

From CKS Terminal 1	From CKS Terminal 2	Flight No.
22:10	22:00	UA853, NW69

### *Upon arrival at the Grand Hotel*

Please note that checking into the hotel and registration to the Symposium are separate operations. Please go to the inner right-hand side of the lobby to check in directly. **You should receive breakfast tickets from the reception desk upon checking in.** Registration to the Symposium is on the 10<sup>th</sup> floor, as described below.

### *Registration and Symposium Office Hours*

The symposium office will be located in *Lan Ting*, on the southwestern end of the 10<sup>th</sup> floor near the *Chang-Chin* (Evergreen) *Room*. It will be open 15:00–21:00 on July 25 (Sunday), 08:00–13:00 and 14:00–17:00 on July 26 (Monday), and 08:00–13:00 on July 27–30 (Tuesday–Friday). Please register at the Symposium office during these office hours.

### *Reception (July 25, Sunday)*

A buffet-style dinner reception will be held in the *Grand Garden* (west end of the Lobby level) from 18:00 to 22:00. Please bring your ticket and proceed directly to the *Spring Room* on the southern side of the *Grand Garden*.

### *Scientific Programmes*

All the scientific programme is held on the 10<sup>th</sup> floor of the *Grand Hotel*. The lecture sessions and oral briefs before poster sessions all take place in the *Auditorium*. The posters are located in the *Chang-Chin* (Evergreen) *Room* and the *Song-Bo* (Pine) *Room* on the west side of the *Auditorium*.

### *Meals*

You will receive tickets for meals, which you need to enter the dining room. Breakfast is included in the room charge and is served between 06:30 to 10:00 at the *Grand Garden* (west end of the Lobby level). You should receive tickets for breakfast upon checking in the *Grand Hotel*, and tickets for other meals upon registration at the Symposium Office on 10F.

### *Access to Internet*

Access to a rapid internet service (ADSL) is available from your room, for which the charge is NT\$500/day. A few computers will be available in the office area for internet access during office hours. If possible, we will arrange a few wireless access points on the 10<sup>th</sup> floor so that you can use your notebook and wireless utilities to gain access.

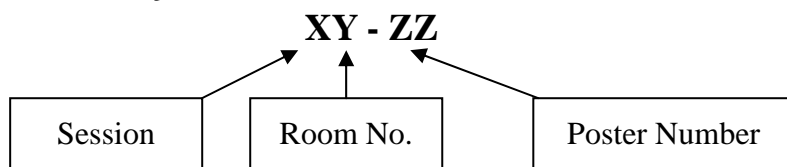
### *Invited Oral Presentation*

Overhead projectors and PC computers (Windows XP or 2000/MS-Office/CD-ROM/ USB port) connected to a multimedia projector will be available. Please upload your files or connect your computer 10 min before each session begins. Please keep your talk within 30–35 min to allow 5–10 min for discussion. Please use large fonts for your presentation because the *Auditorium* has large theatrical seating. You are encouraged to mount a poster or a copy of PowerPoint slides of your talk for further discussion; the identification number of your poster is the same as that of your oral presentation.

### *Posters*

The size of the poster board is 90 cm (H) × 180 cm (W). All posters should be mounted before 16:00 on July 26 (Monday), remain posted until noon July 29 (Thursday), and be dismantled before midnight July 29 (Thursday). Each poster session will begin with a brief oral presentation, 1 minute for each poster, in the *Auditorium*. Please prepare less than 3 transparencies. Only overhead projectors, but not multimedia projectors, are used in these briefing sessions. To save time, the next presenter should move to the front before his or her turn.

## Poster Identifications



X = A : July 26 (Monday) evening, 19:30–22:30

X = B : July 27 (Tuesday) evening, 19:30–22:30

X = C : July 28 (Wednesday) afternoon, 14:00–17:00

Y = 1 : *Chang-Chin Room*

Y = 2 : *Song-Bo Room*

## Symposium Photo (July 26, Monday)

A symposium photograph will be taken on 17:20, July 26 (Monday). Please proceed to the lobby of the hotel after the lecture. Accompanying persons are encouraged to join this activity.

## Lab Tour to IAMS (July 27, Tuesday)

Please register before 12:00 July 26 (Monday) if you have not done so. Meet at the lobby at 14:00 on July 27 (Tuesday). Visit *Chemical Dynamics and Spectroscopy Groups* of the *Institute of Atomic and Molecular Sciences, Academia Sinica*, located on the campus of *National Taiwan University*. Buses depart from *IAMS* for the *Grand Hotel* on 17:00.

## Cultural Evening on July 28 (Wednesday)

We shall begin at 17:30 with a Mongolian BBQ dinner at the *Yuan Shan Club* located beside the *Grand Hotel*. After dinner, at 19:45 buses will take us to the *Taipei EYE Theater* (<http://www.taipeieye.com/eng/>) where we shall enjoy an evening of authentic Taiwanese and Chinese traditional performances beginning at 20:30. The programme includes singing and dancing of aboriginal tribes and a Peking opera. Before the performance and during the intermission, there are interactive activities and you shall have opportunities to see how performers make up and how they play traditional Chinese instruments. English subtitles are provided. The performance lasts ~100 min.

## Conference Tour (July 29, Thursday)

Buses will leave at 13:10 from the *Grand Hotel*. The *National Palace Museum* (<http://www.npm.gov.tw/english/index-e.htm>) contains the world's largest collection of Chinese art treasures. Guided tours in several groups will be provided. Buses depart from the Museum at 17:10.

## Conference Banquet (July 29, Thursday)

The conference banquet begins at 18:30 at the *Kung-Lung Skylounge* on the 12<sup>th</sup> floor. It will

be a traditional ten-course round-table banquet. The banquet speaker is Professor Jon Hougen.

### Lab Tour to Hsinchu (July 30, Friday)

Please register before 12:00, July 28 (Wednesday) if you have not done so; this tour is limited to 45 persons. Buses depart on 14:00, July 30 (Friday). The ride lasts ~1 h. Visit the *National Synchrotron Radiation Research Center* and the *Laser Chemistry Laboratories* of the *National Tsing Hua University*. Have dinner at a local buffet-style seafood restaurant and return to *the Grand Hotel* ~22:30.

For those who have an evening flight on July 30, we can arrange taxis to take you to the airport (~50 min ride from *Hsinchu*) after visiting *National Tsing Hua University*. Please arrange with the Symposium Office.

### Tours for Accompanying Persons

The tours listed on page 25 are provided by *Edison Travel Service* (886-2-25635313, 25634621, 25416785, and 25373838, <http://www.edison.com.tw/>) and administered by the *Grand Hotel* (ext. 1810 and 1811). If you did not indicate your choices on your registration form but would like to join these tours, please contact our staff in the Symposium Office and pay the regular fare. You may also take the tour at a date different from what we indicated below; please contact the *Grand Hotel* directly. All tours depart from the custom service desk at the lobby. Please note that the Symposium uses a tour voucher different from that of the *Grand Hotel*.

## Programme of the 27<sup>th</sup> International Symposium on Free Radicals

	July 25 Sunday	July 26 Monday	July 27 Tuesday	July 28 Wednesday	July 29 Thursday	July 30 Friday
08:30–09:10		Chair: YP Lee	Chair: SH Lin	Chair: Miller	Chair: Hepburn	Chair: Nesbitt
09:10–09:50		Opening: YT Lee	T1 Rowland	W1 Bondybey	R1 Liu	F1 Heaven
09:50–10:20		M1 Suzuki	T2 Akimoto	W2 Merkt	R2 Skodje	F2 Hutson
10:20–11:00		<b>Coffee Break</b>	<b>Coffee Break</b>	<b>Coffee Break</b>	<b>Coffee Break</b>	<b>Coffee Break</b>
11:00–11:40		Chair: Larsson	Chair: ter Meulen	Chair: Jacox	Chair: Butler	Chair: Merer
11:40–12:20		M2 Lineberger	T3 Curl	W3 Vilesov	R3 Brouard	F3 Steimle
12:30–14:00		M3 Leone	T4 MC Lin	W4 Halberstadt	R4 Aoiz	F4 Hsu
14:00–14:40		M4 Meijer	T5 Lester	W5 Momose	R5 Ni	F5 Maier
14:40–15:20		<b>Lunch (B1F, Fu-Chuan Room)</b>			<b>Box Lunch</b>	<b>Lunch (B1F)</b>
15:20–15:50	<b>Registration</b> (15:00–21:00) (10F)	Chair: Colin	<b>IAMS Lab Tour</b> (depart at 14:00 from the front entrance)  <b>or</b> <b>Free</b>	1-min Oral: C1 & C2	<b>Conference Tour</b> (depart at 13:10 from the front entrance)	<b>Tour to Hsinchu</b> (depart at 14:00 from the front entrance)
15:50–16:30		M5 Chen		Chair: Zhang		
16:30–17:10		M6 Neusser		Poster Presentations		
17:10–17:50		Chair: Continetti		W1–W5, R1–R5		
18:00–19:30		M7 Choi		F1–F5		
19:30–20:30	<b>Reception</b> (1F) (Grand Garden)	M8 Schatz	<b>Dinner at 17:30</b>	C1-01–C1-17	<b>Banquet at 18:30</b> (12F) (Skylounge)	
20:30–22:30		<b>Symposium Photo</b>	<b>(BBQ at Y-S Club)</b>	C2-01–C2-21		
		<b>Dinner (B1F)</b>	<b>Dinner (B1F)</b>	<b>Cultural Evening</b> (at Taipei EYE) (buses depart at 19:45 from Yuan-Shan Club)		
		1-min Oral: A1 & A2	1-min Oral: B1 & B2	<b>Cultural Evening</b> (at Taipei EYE)		
		Chair: Dagdigian	Chair: Shida			
		Poster Presentations	Poster Presentations			
		M1–M8	T1–T5			
		A1-01–A1-17	B1-01–B1-17			
		A2-01–A2-21	B2-01–B2-21			

# Scientific Programme and Symposium Schedule

Monday, 26 July, 2004

SESSION 1 Chair: **Y.-P. Lee**, *National Tsing Hua University, Hsinchu, Taiwan*

08:30 – 09:10 Opening Address - **Y. T. Lee**, *Academia Sinica, Taipei, Taiwan*

09:10 – 09:50 M1: **T. Suzuki**, *RIKEN, Wako, JAPAN* (recipient of Broida Award)  
*Chemical Dynamics Studied by Time-Resolved Photoelectron Imaging*

*09:50 – 10:20 interval for refreshments*

SESSION 2 Chair: **M. Larsson**, *Stockholm University, Stockholm, Sweden*

10:20 – 11:00 M2: **W. C. Lineberger**, *JILA / University of Colorado, Boulder, CO, USA*  
*Time Resolved Solvent Rearrangement Dynamics*

11:00 – 11:40 M3: **S. R. Leone**, *University of California, Berkeley, CA, USA*  
*Ultrafast X-Rays: Time-Resolved Photoelectron Processes in Molecular Dissociation*

11:40 – 12:20 M4: **G. Meijer**, *Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin, Germany & FOM Institute for Plasmaphysics Rijnhuizen, Nieuwegein, The Netherlands*  
*Manipulation of Molecules with Electric Fields*

*12:30 – 14:00 Lunch (Fu-Chuan Room, B1F)*

SESSION 3 Chair: **R. Colin**, *Universite Libre de Bruxelles, Brussels, Belgium*

14:00 – 14:40 M5: **I.-C. Chen**, *National Tsing Hua University, Hsinchu, Taiwan*  
*Rotationally Resolved Spectra of Transitions Involving Motion of the Methyl Group of Acetaldehyde in the System  $\tilde{A}^1A'' - \tilde{X}^1A'$*

14:40 – 15:20 M6: **H. J. Neusser**, *Technische Universität München, Garching, Germany*  
*High Resolution Mass Selective UV Spectroscopy of Molecules and Clusters*

*15:20 – 15:50 interval for refreshments*

SESSION 4 Chair: **R. E. Continetti**, *University of California, San Diego, CA, USA*

15:50 – 16:30 M7: **J.-H. Choi**, *Korea University, Seoul, Korea*

*Reaction Dynamics of Atomic Oxygen with Hydrocarbon Radicals*

16:30 – 17:10 M8: **G. C. Schatz**, *Northwestern University, Evanston, IL, USA*

*Theoretical Studies of Reactions of Hyperthermal O(<sup>3</sup>P)*

17:10 – 17:50 Symposium Photo

*18:00 – 19:30 Dinner (Fu-Chuan Room, B1F)*

SESSION 5 Chair: **P. J. Dagdigian**, *Johns Hopkins University, Baltimore, MD, USA*

19:30 – 20:30 Brief oral presentations of posters: Sessions A1 & A2 (*Auditorium*)

20:30 – 22:30 Poster presentations

A1-01 to A1-17, M1 to M8 (*Chang-Chin Room*)

A2-01 to A2-21 (*Song-Bo Room*)

## Tuesday, 27 July, 2004

SESSION 1 Chair: **S. H. Lin**, IAMS, Academia Sinica, Taipei, Taiwan

8:30 – 9:10 T1: **F. S. Rowland**, University of California, Irvine, CA, USA  
*Hydrocarbons in the Atmosphere*

9:10 – 9:50 T2: **H. Akimoto**, Frontier Res. Sys. for Global Change, Yokohama, Japan  
*Atmospheric Measurements of OH and HO<sub>2</sub> Radicals in a Marine Boundary Layer*

9:50 – 10:20 *interval for refreshments*

SESSION 2 Chair: **H. J. ter Meulen**, Univ. of Nijmegen, Nijmegen, The Netherlands

10:20 – 11:00 T3: **R. F. Curl**, Rice University, Houston, TX, USA  
*Infrared Laser Spectroscopy and Chemical Kinetics of Free Radicals*

11:00 – 11:40 T4: **M. C. Lin**, Emory University, Atlanta, GA, USA  
*Ab Initio Studies of Free Radical Reactions of Interest to Atmospheric Chemistry*

11:40 – 12:20 T5: **M. I. Lester**, University of Pennsylvania, Philadelphia, PA, USA  
*Significant OH Radical Reactions in the Atmosphere: A New View*

12:30 – 14:00 *Lunch (Fu-Chuan Room, B1F)*

Meeting of the International Organizing Committee (*Rm. 102, 1F*)

14:00 – 17:50 IAMS Laboratory Tours

18:00 – 19:30 *Dinner (Fu-Chuan Room, B1F)*

SESSION 3 Chair: **T. Shida**, Kanagawa Institute of Technology, Kyoto, Japan

19:30 – 20:30 Brief oral presentations of posters: Sessions B1 & B2 (*Auditorium*)

20:30 – 22:30 Poster presentations  
B1-01 to B1-17, T1 to T5 (*Chang-Chin Room*)  
B2-01 to B2-21 (*Song-Bo Room*)

## Wednesday, 28 July, 2004

SESSION 1 Chair: **T. A. Miller**, *Ohio State University, OH, USA*

8:30 – 9:10 W1: **V. E. Bondybey**, *Technische Universität München, Garching, Germany & University of California, Irvine, CA, USA*  
*Free Electrons: The Simplest Free Radicals of them All*

9:10 – 9:50 W2: **F. Merkt**, *ETH Zürich, Zürich, Switzerland*  
*High-Resolution Photoelectron Spectroscopic Studies of Ions and Radicals*

9:50 – 10:20 *interval for refreshments*

SESSION 2 Chair: **M. E. Jacox**, *NIST, Gaithersburg, MD, USA*

10:20 – 11:00 W3: **A. F. Vilesov**, *Univ. of Southern California, Los Angeles, CA, USA*  
*Helium Droplets as a Unique Nano-Matrix for Molecules and Molecular Aggregates*

11:00 – 11:40 W4: **N. Halberstadt**, *CNRS & Univ. Paul Sabatier, Toulouse, France*  
*Non-adiabatic Dynamics of Ionized Neon Clusters inside Helium Nanodroplets*

11:40 – 12:20 W5: **T. Momose**, *Kyoto University, Kyoto, Japan*  
*Free Radicals in Quantum Crystals: A Study of Tunneling Chemical Reactions*

12:30 – 13:50 *Lunch (Fu-Chuan Room, B1F)*

SESSION 3 Chair: **J. Zhang**, *University of California, Riverside, CA, USA*

14:00 – 15:00 Brief oral presentations of posters: Sessions C1 & C2 (*Auditorium*)

15:00 – 17:00 Poster presentations  
C1-01 to C1-17, W1 to W3 (*Chang-Chin Room*)  
C2-01 to C2-21, W4, W5, R1 to R5, F1 to F5 (*Song-Bo Room*)

17:30 – 19:45 *Dinner (Mongolian BBQ at Yuan Shan Club)*

20:00 – 22:30 *Cultural Evening (Taipei EYE Theater)*

Thursday, 29 July, 2004

SESSION 1 Chair: **J. Hepburn**, *Univ. of British Columbia, Vancouver, B.C., Canada*

8:30 – 9:10 R1: **K. Liu**, *IAMS, Academia Sinica, Taipei, Taiwan*  
*From Pair Correlation to Reactive Resonance in Polyatomic Reactions*

9:10 – 9:50 R2: **R. T. Skodje**, *IAMS, Academia Sinica, Taipei, Taiwan & University of Colorado, Boulder, CO, USA*  
*State-to-State-to-State Dynamics of Chemical Reactions: The Control of Detailed Collision Dynamics by Quantized Bottleneck*

9:50 – 10:20 *interval for refreshments*

SESSION 2 Chair: **L. J. Butler**, *University of Chicago, Chicago, IL, USA*

10:20 – 11:00 R3: **M. Brouard**, *University of Oxford, Oxford, United Kingdom*  
*The Stereodynamics of Photon-initiated Reaction*

11:00 – 11:40 R4: **F. J. Aoiz**, *Universidad Complutense de Madrid, Madrid, Spain*  
*Photodissociation Dynamics of Polyatomic Molecules Containing Sulfur: an Experimental Study*

11:40 – 12:20 R5: **C.-K. Ni**, *IAMS, Academia Sinica, Taipei, Taiwan*  
*Photodissociation of Simple Aromatic Molecules Studied by Multimass Ion Imaging Techniques*

12:30 – 13:00 *Box Lunch*

13:10 – 17:30 Conference Tour to *the National Palace Museum*  
*(depart at 13:10 from the front entrance of the Grand Hotel)*

18:30 – 21:30 *Symposium Banquet*  
*(12F, Skylounge)*  
Banquet speaker: **Jon T. Hougen**,  
*NIST, Gaithersburg, MD, USA*

Friday, 30 July, 2004

SESSION 1 Chair: **D. J. Nesbitt**, *University of Colorado, Boulder, CO, USA*

8:30 – 9:10 F1: **M. C. Heaven**, *Emory University, Atlanta, GA, USA*  
*Spectroscopy and Dynamics of NH Radical Complexes*

9:10 – 9:50 F2: **J. M. Hutson**, *University of Durham, Durham, United Kingdom*  
*Molecules in Cold Atomic Gases: How do They Interact?*

*9:50 – 10:20 interval for refreshments*

SESSION 2 Chair: **A. J. Merer**, *Univ. of British Columbia, Vancouver, B.C., Canada*

10:20 – 11:00 F3: **T. C. Steimle**, *Arizona State University, Tempe, AZ, USA*  
*Optical Stark and Zeeman Spectroscopy of Transition Metal Containing Radicals*

11:00 – 11:40 F4: **Y.-C. Hsu**, *IAMS, Academia Sinica & National Taiwan University, Taipei, Taiwan*  
*The Bending Vibrational Levels of C<sub>3</sub>-Rare-Gas Atom Complexes and C<sub>2</sub>H<sub>2</sub><sup>+</sup>*

11:40 – 12:20 F5: **J. P. Maier**, *University of Basel, Basel, Switzerland*  
*Electronic Spectra of Carbon Chains and their Relevance to Astrophysics*

*12:30 – 13:50 Lunch (Fu-Chuan Room, B1F)*

14:00 Farewell

14:00 – 22:30 Lab Tour to Hsinchu  
*(depart at 14:00 from the front entrance of the Grand Hotel)*

## List of Contributed Posters

Monday Evening, 26 July, 2004

No.	Authors and Title
A1-01	<i>Laperle, Christopher M.; Mann, Jennifer E.; <u>Continetti, Robert E.</u></i> Three-Body Dissociation Dynamics of the Low-Lying Rydberg States of H <sub>3</sub>
A1-02	<i><u>Lin, Jim J.</u>; Perri, Mark J.; Van Wyngarden, Annalise L.; Boering, Kristie A.; Lee, Yuan T.</i> Reaction Dynamics of Isotope Exchange Reaction of Singlet Oxygen Atom with Carbon Dioxide Molecule: A Crossed Molecular Beam Study
A1-03	<i><u>Tseng, Chien-Ming</u>; Dyakov, Yuri A.; Huang, Cheng-Liang; Mebel, Alexander M.; Lin, Sheng Hsien; Lee, Yuan T.; Ni, Chi-Kung</i> Photoisomerization and Photodissociation of Aniline and 4-Methylpyridine
A1-04	<i>Zhou, Weidong; Yuan, Yan; <u>Zhang, Jingsong</u></i> H-atom Elimination of <i>n</i> -Propyl and <i>iso</i> -Propyl Radicals: A Photodissociation Study
A1-05	<i><u>Lee, Shih-Huang</u>; Lee, Yuan T.</i> Studies of Photodissociation Dynamics Using Selective Photoionization
A1-06	<i><u>Zhang, Bailin</u>; Shiu, Weicheng; Lin, Jim J.; Liu, Kopin</i> Imaging the Mode-Correlation of Product Pairs: OH + CD <sub>4</sub> → CD <sub>3</sub> (0 <sub>0</sub> <sup>0</sup> Q, 2 <sub>2</sub> <sup>0</sup> Q) + HOD(v <sub>1</sub> v <sub>2</sub> 0)
A1-07	<i><u>Dyakov, Yuri A.</u>; Mebel, Alexander M.; Lin, S. H.; Lee, Yuan T.; Ni, Chi-Kung</i> Photodissociation of 4-Picoline, Aniline and Pyridine: <i>Ab Initio</i> and RRKM Study
A1-08	<i><u>Lee, Yin-Yu</u>; Dung, Tzan-Yi; Lee, Shih-Huang; Pan, Wan-Chun; Chen, I-Chia; Lin, Jr-Min; Yang, Xueming; Lee, Yuan T.</i> Isomeric Species CH <sub>2</sub> SH and CH <sub>3</sub> S Formation from Photodissociation of Methanethiol at 157 nm
A1-09	<i><u>Wu, Chia-Yan</u>; Wu, Yu-Jong; Lee, Yuan-Pern</i> Photodissociation of Fluorobenzene (C <sub>6</sub> H <sub>5</sub> F) at 193 nm Monitored with Time-resolved Fourier-transform Infrared Emission Spectroscopy
A1-10	<i><u>Chen, Wei-Kan</u>; Ho, Jr-Wei; Cheng, Po-Yuan</i> Ultrafast Photodissociation Dynamics of Acetone S <sub>2</sub> State at 195 nm
A1-11	<i><u>Castillo, J. F.</u>; Aoiz, F. J.; Banares, L.; Vazquez, S.; Martinez-Nuñez, E.; Fernandez-Ramos, A.</i> Quasiclassical Trajectory Studies of the F + CH <sub>4</sub> Reaction Using an <i>Ab Initio</i> Potential Energy Surface Constructed by Interpolation

A1-12	<i>Eskola, Arkke; Seetula, Jorma; Timonen, Raimo</i> Kinetics of the Reactions of Methyl Radical with HCl and DCl at Temperatures 188 – 500 K: Tunneling
A1-13	<i>Tseng, S. Y.; Huang, C. L.; Wang, T. Y.; Wang, N. S.; Xu, Z. F.; Lin, M. C.</i> Kinetics of the NCN + NO Reaction
A1-14	<i>Wu, Di; Wang, Bing-Qiang; Li, Zhi-Ru; Hao, Xi-Yun; Li, Ru-Jiao; Sun, Chia-Chung</i> Single-electron Hydrogen Bonds in the Methyl Radical Complexes H <sub>3</sub> C...HF and H <sub>3</sub> C...HCCH: an <i>ab initio</i> Study
A1-15	<i>Hela, P. G.; Shih, H.-T.; Cheng, C.-H.; Chen, I.-C.</i> Dynamics of Photoluminescence in Bistriphenylene
A1-16	<i>Chang, Chih-Wei; Diau, Eric Wei-Guang; Chang, I-Jy</i> Ultrafast Interfacial Electron Transfer Dynamics of the TiO <sub>2</sub> Nanostructures Functionalized by the Ru <sup>2+</sup> Complexes
A1-17	<i>Hancock, G.; Morrison, M.; Saunders, M.</i> Time Resolved FTIR Emission Studies of Molecular Dynamics
A2-01	<i>Katoh, Kaoru; Sumiyoshi, Yoshihiro; Ueno, Taketoshi; Endo, Yasuki</i> Fourier-Transform Microwave Spectroscopy of CCl and CCCC1
A2-02	<i>Kobayashi, Kaori; Saito, Shuji</i> Isotope Study of the CCO Radical in its <sup>3</sup> Σ <sup>-</sup> Ground State by Microwave Spectroscopy
A2-03	<i>Lin, Chia-Shih; Chang, Wei-Zhong; Hsu, Hui-Ju; Chang, Bor-Chen</i> New Dispersed Fluorescence Spectra of Simple Halocarbenes in a Discharge Supersonic Free Jet Expansion
A2-04	<i>Radi, Peter P.; Tulej, Marek; Knopp, Gregor; Beaud, Paul; Gerber, Thomas</i> Double-Resonance Spectroscopy on HCO and H <sub>2</sub> CO by Two-Color Resonant Four-Wave Mixing
A2-05	<i>Fink, E. H.; Ramsay, D. A.</i> Near Infrared Emission Spectra of HO <sub>2</sub> and DO <sub>2</sub>
A2-06	<i>Evertsen, R.; Staicu, A.; van Oijen, J. A.; Dam, N. J.; de Goey, L. P. H.; ter Meulen, J. J.</i> Cavity Ring Down Spectroscopy of CH, CH <sub>2</sub> , HCO and H <sub>2</sub> CO in a Premixed Flat Flame at both Atmospheric and Sub-atmospheric Pressure
A2-07	<i>Yurchenko, Sergei N.; Carvajal, Miguel; Jensen, Per; Lin, Hai; Thiel, Walter</i> Rotation-vibration Motion of Pyramidal XY <sub>3</sub> Molecules Described in the Eckart Frame: Theory and Application to NH <sub>3</sub>
A2-08	<i>Chen, Kuo-mej</i> Resonance-enhanced Multiphoton Ionization Spectroscopy of CH <sub>3</sub> and CD <sub>3</sub> . Two-photon Absorption Selection Rules and Rotational Line Strengths of the ν <sub>3</sub> - and ν <sub>4</sub> -Active Vibronic Transitions

A2-09	<i>Shayesteh, Alireza; Appadoo, Dominique R. T.; Gordon, Iouli; Bernath, Peter F.</i> The Vibration-Rotation Emission Spectra of Gaseous ZnH <sub>2</sub> and ZnD <sub>2</sub>
A2-10	<i>Balfour, Walter J.; Brown, John M.; Wallace, Lloyd</i> Identification and Characterization of Two New Electronic Transitions of the FeH Radical in the Infrared
A2-11	<i>Ashworth, Stephen H.; Varberg, Thomas D.; Hodges, Philip J.; Brown, John M.</i> Detection of the Electronic Spectra of FeCl <sub>2</sub> and CoCl <sub>2</sub> in the Gas Phase
A2-12	<i>Merer, A. J.; Peers, J. R. D.; Rixon, S. J.</i> Free Radicals in the Reaction Products of Zr with Methane: the Electronic Spectra of ZrC and ZrCH
A2-13	<i>Tang, Sheunn-Jiun; Chou, Yung-Ching; Lin, Jim Jer-Min; Hsu, Yen-Chu</i> The Bending Vibrational Levels of Acetylene Cation: A Case Study of the Renner-Teller Effects with Two Degenerate Bending Vibrations
A2-14	<i>Yoshida, K.; Kanamori, H.</i> High Resolution Spectroscopic Studies of Vibrational States in the Triplet Potential of Acetylene
A2-15	<i>Lin, I-Feng; Kurniawan, Fendi; Chiang, Su-Yu</i> Experimental and Theoretical Studies on Rydberg States of H <sub>2</sub> CS in the Region 130-220 nm
A2-16	<i>Jacox, Marilyn E.; Thompson, Warren E.</i> Infrared Spectra of Neutral and Ionic SO <sub>2</sub> H <sub>2</sub> Species Trapped in Solid Neon
A2-17	<i>Jochnowitz, Evan B.; Zhang, Xu; Nimlos, Mark R.; Varne, Mychel Elizabeth; Stanton, John F.; Ellison, G. Barney</i> Polarized IR Spectrum of Matrix-Isolated Propargyl Radicals and Detection of HC≡CH-CH <sub>2</sub> OO
A2-18	<i>Cardenas, R.; Bates, S. A.; Robbins, D. L.; Rittby, C. M. L.; Graham, W. R. M.</i> Recent Progress in FTIR and DFT Studies on the Vibrational Spectra and Structures of Group IV Clusters
A2-19	<i>Delaney, Cailin; Clar, Justin; Cohen, Jodi; Abrash, Samuel A.</i> Photochemistry of HI-Allene Complexes in Argon Matrices
A2-20	<i>van de Meerakker, S. Y. T.; Vanhaecke, N.; Meijer, G.</i> Decelerating OH and NH Radical Beams
A2-21	<i>Hu, Shui-Ming; Liu, An-Wen; He, Sheng-Gui; Zheng, Jing-Jing; Lin, Hai; Zhu, Qing-Shi</i> Inter-bonds Crossing Dipole Moment and Stretching Vibrational Bands Intensities of the Group V Hydrides

**Tuesday Evening, 27 July, 2004**

No.	Authors and Title
B1-01	<p><i>Capozza, G.; Leonori, F.; Segoloni, E.; Balucani, N.; Stranges, D.; Volpi, G. G.; Casavecchia, P.</i>            Crossed Molecular Beam Studies of <i>Radical-radical</i> Reactions: O(<sup>3</sup>P) + C<sub>3</sub>H<sub>5</sub> (Allyl)</p>
B1-02	<p><i>Balucani, N.; Capozza, G.; Segoloni, E.; Cartechini, L.; Bobbenkamp, R.; Casavecchia, P.; Bañares, L.; Aoiz, F. J.; Honvault, P.; Bussery-Honvault, B.; Launay, J.-M.</i>            The Dynamics of Prototype <i>Insertion</i> Reactions: Crossed Beam Experiments versus Quantum and Quasiclassical Trajectory Scattering Calculations on <i>Ab Initio</i> Potential Energy Surfaces for C(<sup>1</sup>D) + H<sub>2</sub> and N(<sup>2</sup>D) + H<sub>2</sub></p>
B1-03	<p><i>Lin, Ming-Fu; Dyakov, Yuri A.; Lin, Sheng-Hsien; Lee, Yuan T.; Ni, Chi-Kung</i>            Photodissociation Dynamics of Pyridine and C<sub>6</sub>H<sub>x</sub>F<sub>6-x</sub> (x = 1~4) at 193 nm</p>
B1-04	<p><i>Zhou, Weidong; Yuan, Yan; Zhang, Jingsong</i>            State-to-state Photodissociation Dynamics of OH Radical via the A<sup>2</sup>Σ<sup>+</sup> State and Fine-structure Distributions of the O(<sup>3</sup>P<sub>j</sub>) Product</p>
B1-05	<p><i>McCunn, L. R.; Miller, J. L.; Krisch, M. J.; Liu, Y.; Butler, L. J.; Shu, J.</i>            Molecular Beam Studies of the Photolysis of 2-Chloro-2-butene and the Subsequent Dissociation of the 2-Buten-2-yl Radical</p>
B1-06	<p><i>Shiu, Vincent W. C.; Lin, Jim J.; Liu, Kopin; Wu, Malcom; Parker, David H.</i>            Threshold is More Exciting: Seeing Reactive Resonance in a Polyatomic Reaction</p>
B1-07	<p><i>Martínez-Núñez, Emilio; Marques, Jorge M. C.; Vázquez, Saulo A.</i>            Dissociation of the Methanethiol Radical Cation Induced by Collisions with Ar Atoms: An Investigation by Quasiclassical Trajectories</p>
B1-08	<p><i>Obernhuber, Thorsten; Kensy, Uwe; Dick, Bernhard</i>            The Photodissociation Dynamics of <i>t</i>-Butylnitrite Initiated by Excitation to the S<sub>2</sub> Electronic State</p>
B1-09	<p><i>Yang, Sheng-Kai; Chen, Hui-Fen; Liu, Suet-Yi; Wu, Chia-Yan; Lee, Yuan-Pern</i>            Photolysis of 2-Fluorotoluene at 193 nm: Internal Energy of HF Determined with Time-resolved Fourier-transform Infrared Emission Spectroscopy</p>
B1-10	<p><i>Cireasa, D. R.; Moise, A.; ter Meulen, J. J.</i>            Inelastic State-to-state Scattering of Oriented OH by HCl</p>
B1-11	<p><i>Castillo, J. F.; Aoiz, F. J.; Banares, L.</i>            Quasiclassical Trajectory Studies of the Cl + CH<sub>4</sub> Reaction Using an <i>Ab Initio</i> Potential Energy Surface Constructed by Interpolation</p>

B1-12	<i>Pimentel, André S.; Nesbitt, Fred L.; Payne, Walter A.; Cody, Regina J.</i> Planetary Chemistry of C <sub>2</sub> H <sub>5</sub> Radicals: Rate Constant for the CH <sub>3</sub> + C <sub>2</sub> H <sub>5</sub> Reaction at Low Temperatures and Pressures
B1-13	<i>Chou, Sheng-Lung; Lee, Yuan-Pern; Lin, Ming-Chang</i> Experimental Studies of the Rate Coefficients of the Reaction O( <sup>3</sup> P) + CH <sub>3</sub> OH at High Temperatures
B1-14	<i>Li, Zhi-Ru; Wu, Di; Li, Ru-Jiao; Hao, Xi-Yun; Wang, Bing-Qiang; Sun, Chia-Chung</i> Electron Donor-Acceptor Bonds in the Methyl Radical Complexes H <sub>3</sub> C-BH <sub>3</sub> , H <sub>3</sub> C-AlH <sub>3</sub> and H <sub>3</sub> C-BF <sub>3</sub> : an <i>ab initio</i> Study
B1-15	<i>Liu, Kuan Lin; Cheng, Chao Han; Tang, Kuo-Chun; Chen, I-Chia</i> Rapid Intersystem Crossing in Highly Phosphorescent Iridium Complexes
B1-16	<i>Luo, Liyang; Chiang, Chia-Chen; Diao, Eric Wei-Guang; Lin, Ching-Yao</i> Ultrafast Electron Transfer and Energy Transfer Dynamics of Porphyrin- TiO <sub>2</sub> Nanostructures
B1-17	<i>Yin, Hong-Ming; Sun, Ju-Long; Cong, Shu-Lin; Han, Ke-Li; He, Guo-Zhong</i> The Internal Energy Distribution and Alignment Properties of the CH <sub>3</sub> O (X) Fragment by the Photodissociation of CH <sub>3</sub> ONO at 355 nm
B2-01	<i>Suma, Kohsuke; Sumiyoshi, Yoshihiro; Endo, Yasuki</i> Fourier-transform Microwave Spectroscopy and FTMW-millimeter-wave Double Resonance Spectroscopy of XOO (X = Cl, Br) Radicals
B2-02	<i>Han, Huei-Lin; Chu, Li-Kang; Lee, Yuan-Pern</i> Detection of Infrared Absorption of Gaseous ClCS Using Time-resolved Fourier-transform Spectroscopy
B2-03	<i>Fan, Haiyan; Ionescu, Ionela; Annesley, Chris; Xin, Ju; Reid, Scott A.</i> On the Renner-Teller Effect and Barriers to Linearity and Dissociation in HCF( <sup>1</sup> A")
B2-04	<i>Colin, Reginald; Liu, Ching-Ping; Lee, Yuan-Pern</i> Detection of Predissociated Levels of the SO B <sup>3</sup> Σ <sup>-</sup> State using Degenerate Four-wave Mixing Spectroscopy
B2-05	<i>Elliott, N. L.; Fitzpatrick, J. A. J.; Chekhlov, O. V.; Ashworth, S. H.; Western, C. M.</i> Electronic Structure from High Resolution Spectroscopy
B2-06	<i>Dagdigian, Paul J.; Nizamov, Boris; Teslja, Alexey</i> Cavity Ring-Down Spectroscopy of Polyatomic Transient Intermediates: H <sub>2</sub> CN and H <sub>2</sub> CNH
B2-07	<i>Pollack, Ilana B.; Konen, Ian M.; Li, Eunice X. J.; Lester, Marsha I.</i> Significant OH Radical Reactions in the Atmosphere: A New View

B2-08	<i>Muramoto, Yasuhiko; <u>Ishikawa, Haruki</u>; Mikami, Naohiko</i> First Observation of the $\tilde{B}$ ( $^1A_1$ ) State of SiH <sub>2</sub> and SiD <sub>2</sub> Radicals by the OODR Spectroscopy
B2-09	<i><u>Bernath, P.</u>; Bauschlicher, C. W.; Dulick, M.; Ram, R. S.; Burrows, A.</i> Metal Hydrides in Astronomy
B2-10	<i><u>O'Brien, Leah C.</u>; Hardimon, Sarah</i> Fourier Transform Spectroscopy of Gold Oxide, AuO
B2-11	<i><u>Balfour, Walter J.</u>; Li, Runhua; Jensen, Roy H.; Shephard, Scott A.; Adam, Allan G.</i> The First Observation of the Rhodium Monofluoride Molecule Jet-cooled Laser Spectroscopic Studies
B2-12	<i><u>Miller, Terry A.</u></i> Spectroscopy of Free Radicals in Hydrocarbon Oxidation
B2-13	<i><u>Chou, Yung-Ching</u>; Chen, I-Chia; Hougen, Jon T.</i> Anomalous Splittings of Torsional Sublevels Induced by the Aldehyde Inversion Motion in the S <sub>1</sub> State of Acetaldehyde
B2-14	<i>Lee, P. C.; Yang, J. C.; <u>Nee, J. B.</u></i> Absorption Spectra of O <sub>2</sub> and NO in 105-200 nm Wavelength Region Measured by using a Supersonic Jet
B2-15	<i><u>Willitsch, Stefan</u>; Innocenti, Fabrizio; Dyke, John M.; Merkt, Frédéric</i> Rovibronic Energy Level Structure of the Two Lowest Electronic States of the Ozone Cation
B2-16	<i>Lo, Wen-Jui; <u>Chen, Hui-Fen</u>; Chou, Po-Han; Lee, Yuan-Pern</i> Isomers of OCS <sub>2</sub> : IR Absorption Spectra of OSCS in Solid Argon
B2-17	<i><u>Zhang, Xu</u>; Kato, Shuji; Bierbaum, Veronica M.; Ellison, G. Barney</i> Gas-Phase Reactions of Organic Radicals and Diradicals with Ions
B2-18	<i><u>Larsson, M.</u>; McCall, B. J.; Huneycutt, A. J.; Saykally, R. J.; Geballe, T. R.; Djurić, N.; Dunn, G. H.; Semaniak, J.; Novotny, O.; Al-Khalili, A.; Ehlerding, A.; Hellberg, F.; Kalhour, S.; Neau, A.; Paál, A.; Thomas, R.; Österdahl, F.</i> H <sub>3</sub> <sup>+</sup> Dissociative Recombination and the Cosmic-Ray Ionisation Rate towards ζ Persei
B2-19	<i>Oguchi, T.; Hattori, T.; <u>Matsui, H.</u></i> The Reaction Mechanism of O( <sup>1</sup> D) with Ethylene: the Product Yield Measurements of OH, CH <sub>2</sub> CHO and H atom
B2-20	<i><u>Geppert, W. D.</u>; Thomas, R.; Ehlerding, A.; Hellberg, F.; Österdahl, F.; Millar, T. J.; Semaniak, J.; <u>af Ugglas, M.</u>; Djuric, N.; Larsson, M.</i> Dissociative Recombination of Astrophysically Important Isoelectronic Ions
B2-21	<i>Peterka, Darcy S.; Kim, Jeong Hyun; <u>Wang, Chia C.</u>; Ahmed, Musahid; Neumark, Daniel M.</i> Photoelectron Spectroscopy of Nitric Oxide Doped in Helium Droplets

### Wednesday Afternoon, 28 July, 2004

No.	Authors and Title
C1-01	<i>Capozza, G.; Leonori, F.; Segoloni, E.; Volpi, G. G.; Casavecchia, P.</i> Dynamics of HCCO and CH <sub>2</sub> Radical Formation from the Reaction O( <sup>3</sup> P) + C <sub>2</sub> H <sub>2</sub> in Crossed Beams using <i>Soft</i> Electron Impact Ionization for Product Detection
C1-02	<i>Capozza, G.; Segoloni, E.; Volpi, G. G.; Casavecchia, P.</i> Towards the "Universal" Product Detection in Crossed Beam Reactive Scattering Experiments using <i>Soft</i> Electron Impact Ionization: Dynamics of Vinyloxy, Acetyl, Methyl, Formyl, and Methylene Radicals and Ketene Formation from the Reaction O( <sup>3</sup> P) + C <sub>2</sub> H <sub>4</sub>
C1-03	<i>Liu, Chen-Lin; Hsu, Hsu Chen; Ni, Chi-Kung</i> Photodissociation of I <sub>2</sub> <sup>+</sup> Studied by Velocity Map Imaging
C1-04	<i>Higashiyama, Tomohiko; Ishida, Masayuki; Honma, Kenji</i> Dynamics of Reaction, Y( <sup>2</sup> D <sub>3/2, 5/2</sub> ) + O <sub>2</sub> (X <sup>3</sup> Σ <sub>g</sub> <sup>-</sup> ) → YO(A <sup>2</sup> Π) + O( <sup>3</sup> P <sub>J</sub> ), Studied by Crossed Beam-chemiluminescence Technique
C1-05	<i>Miller, J. L.; McCunn, L. R.; Krisch, M. J.; Butler, L. J.; Shu, J.</i> Molecular Beam Studies of the Dissociation and Isomerization of Radical Isomers: The Influence of the Electronic Wavefunction in the Dissociation Dynamics of Vinyloxy Radicals
C1-06	<i>Chang, Chushuan; Luo, Chu-Yung; Liu, Kopin</i> Mode- and State-selected Photodissociation of OCS <sup>+</sup> by Time-sliced Velocity Mapping Image Technique
C1-07	<i>Martínez-Núñez, Emilio; Vázquez, Saulo A.</i> Quasiclassical Trajectory Study of the 193 nm Photodissociation of CF <sub>2</sub> CHCl
C1-08	<i>Fujimura, Yo; Tamada, Hisashi; Imai, Yoshiyuki; Mitsutani, Kazuya; Kajimoto, Okitsugu</i> Reinvestigation of O( <sup>1</sup> D)+H <sub>2</sub> O Reaction: Examination of the Contribution of Excited States
C1-09	<i>Bahou, Mohammed; Lee, Yuan-Pern</i> Photodissociation Dynamics Investigated with a Pulsed Slit-jet and Time-resolved Fourier-transform Spectroscopy
C1-10	<i>Lee, Sheng-Jui; Chen, I-Chia</i> <i>Ab Initio</i> Studies for Dissociation Pathway and Isomerization of Crotonaldehyde
C1-11	<i>Ho, Jr-Wei; Yang, Chia-Ming; Lai, Ta-Jen; Cheng, Po-Yuan</i> The Use of Ultrafast Photodissociation as a Probe for Studies of Electronic Energy Transfer Dynamics

C1-12	<i>Oum, Kawon; Sekiguchi, Kentaro; <u>Luther, Klaus</u></i> The Role of Radical-Molecule Complexes in the Recombination Kinetics of Benzyl Radicals
C1-13	<i><u>Alam, M. S.</u>; Rao, B. S. M.; Janata, E.</i> Reactions of $\cdot\text{OH}$ and $\text{H}\cdot$ with Aliphatic Alcohols: A Pulse Radiolysis Study
C1-14	<i><u>Cheng, Mu-Jeng</u>; Chu, San-Yan</i> Substituent Effect on Structure and Bonding of Bertrand Diradical $(\text{X}_2\text{P})_2(\text{BY})_2$
C1-15	<i><u>Guss, Joseph</u>; Kable Scott</i> Characterisation of the $\text{CCl}_2 \tilde{\text{A}}$ State
C1-16	<i><u>Kumae, Takashi</u>; Arakawa, Hatsuko</i> Assessment of Training Effects on Levels of Serum Total Anti-oxidative Activity in Matured Rats using Luminol-dependent Chemiluminescence
C1-17	<i>Dong, Feng; Whitney, Erin; Zolot, Alex; Deskevich, Mike; <u>Nesbitt, David J.</u></i> High Resolution Spectroscopy and Reaction Dynamics of Free Radicals
C2-01	<i><u>Katoh, Kaoru</u>; Sumiyoshi, Yoshihiro; Endo, Yasuki; Hirota, Eizi</i> FTMW and FTMW-MMW Double Resonance Spectroscopy of the $\text{CH}_3\text{OO}$ Radical
C2-02	<i>Juances-Marcos, Juan Carlos; <u>Althorpe, Stuart C.</u></i> Geometric Phase and the Hydrogen-Exchange Reaction
C2-03	<i>Fan, Haiyan; Ionescu, Ionela; Annesley, Chris; Xin, Ju; <u>Reid, Scott A.</u></i> Polarization Quantum Beat Spectroscopy of $\text{HCF}(\tilde{\text{A}}^1\text{A}'')$ : $^{19}\text{F}$ and $^1\text{H}$ Hyperfine Structure, Zeeman Effect, and Singlet-triplet Interactions
C2-04	<i><u>Liu, Ching-Ping</u>; Reid, Scott A.; Lee, Yuan-Pern</i> Two-color Resonant Four-wave Mixing Spectroscopy of Highly Predissociated Levels in the $\tilde{\text{A}}^2\text{A}_1$ State of $\text{CH}_3\text{S}$
C2-05	<i>Ahmed, K.; Balint-Kurti, G. G.; <u>Western, C. M.</u></i> Exploring the Potential Energy Surfaces of $\text{C}_3$
C2-06	<i><u>Zhang, Guiqiu</u>; Chen, Kan-Sen; Merer, Anthony J.; Hsu, Yen-Chu; Chen, Wei-Jan; Sadasivan, Shaji; Liao, Yean-An; Kung, A. H.</i> Perturbations in the $\tilde{\text{A}}^1\Pi_u$ , 000 Level of $\text{C}_3$
C2-07	<i>Marshall, Mark D.; Greenslade, Margaret E.; Davey, James B.; <u>Lester, Marsha L.</u></i> Partial Quenching of Orbital Angular Momentum in the OH-Acetylene Complex
C2-08	<i><u>Fujii, Asuka</u>; Miyazaki, Mitsuhiro; Ebata, Takayuki; Mikami, Naohiko</i> Infrared Spectroscopy of Large-sized Protonated Water Cluster Cations: Development of the 3-Dimensional Hydrogen Bond Network with Cluster Size
C2-09	<i><u>Luh, Wei-Tzou</u></i> Electronically-excited Singlet States of LiH

C2-10	<i>O'Brien, Leah C.; O'Brien, James J.</i> Intracavity Laser Spectroscopy of NiH
C2-11	<i>Jakubek, Zygmunt J.; Nakhate, Sanjay; Simard, Benoit; Zachwieja, Mirek</i> Spectroscopy of Si+NH <sub>3</sub> and Si-PH <sub>3</sub> Reaction Products: Rovibronic Structure of the Ground Electronic States of SiNSi and PH <sub>2</sub>
C2-12	<i>Varberg, Thomas D.; Le Roy, Robert J.</i> Isotope Dependence and Born-Oppenheimer Breakdown in Mid- and Far-Infrared Spectra of Cadmium Hydride
C2-13	<i>Baek, Dae Youl; Wang, Jinguo; Doi, Atsushi; Kasahara, Shunji; Baba, Masaaki; Katô, Hajime</i> Doppler-free Two-photon Excitation Spectroscopy and the Zeeman Effect of the $1_0^1 14_0^1$ Band of the $S_1^1 B_{2u} \leftarrow S_0^1 A_{1g}$ Transition of Benzene- <i>d</i> <sub>6</sub>
C2-14	<i>Huang, Cheng-Liang; Liu, Chen-Lin; Ni, Chi-Kung; Hougen, Jon T.</i> Electronic Spectra of Molecules with Two C <sub>3v</sub> Internal Rotors: Torsional Analysis of the $A^1 A_u - X^1 A_g$ LIF Spectrum of Biacetyl
C2-15	<i>Willitsch, Stefan; Dyke, John M.; Merkt, Frédéric</i> Rotationally Resolved Photoelectron Spectrum of NH <sub>2</sub> and ND <sub>2</sub> : Rovibrational Energy Level Structure of the $\tilde{a}^+ ^1 A_1$ and $\tilde{X}^+ ^3 B_1$ States
C2-16	<i>Wu, Yu-Jong; Chou, Chun-Pang; Lee, Yuan-Pern</i> Isomers of CNO <sub>2</sub> : Infrared Absorption of ONCO in Solid Neon
C2-17	<i>Chou, Chun-Pang; Wu, Yu-Jong; Lee, Yuan-Pern</i> IR Spectroscopy of Ge(NO) and Ge(NO) <sub>2</sub> Isolated in Solid Argon
C2-18	<i>Ehlerding, A.; Geppert, W.; Zhaunerchyk, V.; Hellberg, F.; Thomas, R.; Arnold, S. T.; Viggiano, A. A.; Semaniak, J.; Österdahl, F.; af Ugglas, M.; Larsson, M.</i> Dissociative Recombination of Hydrocarbon Ions
C2-19	<i>Thomas, R. D.; Ehlerding, A.; Geppert, W.; Hellberg, F.; Larsson, M.; Rosen, S.; Zhaunerchyk, V.; Bahati, E.; Bannister, M. E.; Vane, C. R.; Petriagnani, A.; van der Zande, W. J.; Andersson, P.; Pettersson, J. B. C.</i> The Effect of Bonding on the Fragmentation of Small Systems
C2-20	<i>Hu, Qichi; Hepburn, John</i> Dynamics and Spectroscopy of Threshold Photoion-Pair Formation
C2-21	<i>Chen, Chun-Cing; Wu, Hsing-Chen; Tseng, Chien-Ming; Yang, Yi-Han; Chen, Yit-Tsong;</i> One- and Two-photon Excitation Vibronic Spectra of 2-methylallyl Radical at 4.6-5.6 V

# General Information

## TRANSPORTATION

### Grand Hotel Shuttle Bus Service

The Grand Hotel provides a free shuttle service to the city every 20~30 minutes from 6:30 to 22:00. The shuttle departs at the main entrance outside the lobby and stops at the *Taiwan Bus Corp. bus stop* and *Yuanshan MRT station* for convenient transfer to public transportation. You can also take the shuttle bus at these two locations to return to the Grand Hotel. Current schedule is as follows:

06:30	07:00	07:30	08:00	08:20	08:40	09:00	09:30	10:00
10:30	11:00	11:20	11:40	12:00	12:20	12:40	13:00	13:30
14:00	14:30	15:00	15:20	15:40	16:00	16:20	16:40	17:00
17:20	17:40	18:00	18:20	18:40	19:00	19:20	19:40	20:00
20:20	20:40	21:00	21:20	21:40	22:00			

### Metro Rapid Transit System in Taipei

If you would like to explore and to experience the true face of Taipei by yourself, the most economical and logical way for you is to use the ***Metro Rapid Transit System*** (MRT). The Taipei MRT system is well indicated with English signs. The "Taipei MRT Tourist Information and Map" included in the conference package serves as a useful guide for you to explore many interesting places in Taipei. Currently, five major and one branch lines are operating. They are identified by color coding:

Muzha Line (brown line): Zhongshan Junior High School ⇔ Taipei Zoo

Danshui Line (red line): NTU Hospital ⇔ Danshui

Xindian Line (green line): Xindian ⇔ NTU Hospital

Zhonghe Line (orange line): Dingxi ⇔ Nanshijiao

Bannan Line (blue line): Kunyang ⇔ Xinpu

Xiaonanmen Branch Line (yellow green line): Hsimen ⇔ C.K.S. Memorial Hall

Tickets can be purchased from ticket machines in MRT stations. The fare is based on the trip distance and starts at NT\$20. Those planning frequent trips can buy a one-day ticket for unlimited travel at MRT stations for NT\$150. The MRT station nearest the Grand Hotel is the *Yuanshan Station* on the *Danshui line*. The Grand Hotel shuttle service provides easy access to *Yuanshan Station*. You should find *Taipei MRT Tourist Information* and a Map in your conference bag.

## **Bus**

The bus system is reliable and efficient in Taipei. There are more than 300 bus lines and the major transfer hub is around *Taipei Main Station*. The bus system is extremely comprehensive, but can be difficult for non-Chinese readers. Destination signs on all buses are in Chinese, as are the bus schedules. Most bus drivers do not speak English. The fare for travel is NT\$15 per section. Most bus services operate until 23:00.

## **Taxi**

There are many taxis on the streets of Taipei. They all have a yellow color and charge by the meter for trips within the Greater Taipei area. Flag fall is NT\$70 and is good for the first 1.5 km, after which the charge is NT\$5 for each additional 300 m or accumulated 5-min stopping. A 5-km trip typically costs about NT\$125. At night (23:00 –06:00), there is an additional 20% charge. There is no need to tip the driver. You might have to pay a little more (NT\$ 30~50) to use the trunk to transport your luggage. Women passengers are advised to call a taxi company for a pick-up at night for safety reasons. Most taxi drivers can speak or read no English, so providing the destination in Chinese characters or a map is helpful. We have prepared an English-Chinese translation form for you to communicate with the drivers or to ask for directions.

## **Transportation from Taipei City to the CKS International Airport**

Four bus companies, *Taiwan Bus Corp. (Guo Guang Bus)*, *Free Go Express*, *Air Bus*, and *Evervoyage*, operate shuttle services between CKS airport and various hotels in Taipei every 15 to 30 minutes from 6:30 am to 10:30 pm. They have two major stops in Taipei: Taipei Main Station and Sungshan Domestic Airport (in the eastern section of the city). The shuttle each way costs between NT\$100 to NT\$120 per passenger. Please consult the web page <http://www.cksairport.gov.tw/english/transportation/taipei.htm> for details.

## **SAFETY AND HEALTH**

Although no responsibility can be assumed by the Symposium for a participant's personal accidents, sickness, or property damages, we, as host of the symposium, shall ensure that you have a safe stay in Taiwan and shall do our utmost to assist you in any unexpected situations.

### **Safety**

Although we are proud of the low rate of crime in Taiwan, it is our responsibility to remind you that burglary, pick-pockets, and robbery are not unknown. It is wise to take some precautionary measures during your stay in Taiwan, especially when you are in a crowded area or when you are alone in a remote area. Be prepared by keeping photocopies of your

passport, other identification, and credit cards. You should exercise caution when crossing streets because some drivers might not respect your right of way.

## **Drinking Water**

Although the Taipei Water Department claims that tap water is drinkable, drinking unboiled tap water is not recommended. The *Grand Hotel* provides brand-name bottled water and boiled drinking water. Bottled water is available at most convenience stores and supermarkets.

## **Emergencies**

In case of emergency, call **110** for **Police**; **119** for **Ambulance**. No coins are required in using public telephones for these two numbers.

## **Health Care**

If you need any medical assistance during your stay in Taiwan, please contact the hotel or our local staff for immediate assistance. In case you must seek medical assistance by yourself, here is a list of hospitals in which English-speaking medical staff is available (recommended by the American Institute in Taiwan).

*Adventist Hospital (Taiwan):* 424 Bate Rd., Sec.2, TEL 2-2771-8151

*Cathay General Hospital:* 280 RenAi Rd., Sec.4, TEL 2-2708-2121

*Mackay Memorial Hospital:* 92 ZhongShan N. Rd., Sec.2, TEL 2-2543-3535

*National Taiwan University Hospital:* 7 ZhongShan S. Rd., TEL 2-2397-0800

*Shin Kong Wu Ho Su Memorial Hospital:* 95 WenChang St., TEL 2-2833-2211

*Veterans General Hospital:* 201 ShiPai Rd., Sec.2, TEL 2-2871-2121

## **OTHERS**

### **Currency Exchange**

The local currency is the New Taiwan Dollar (NTD). The current exchange rate is 1 USD  $\cong$  33.6 NTD and 1 EUR  $\cong$  41.1 NTD. Major foreign currencies can be exchanged at *CKS Airport* and the *Grand Hotel*. Paper money is currently available in NT\$100, 200, 500, 1,000 and 2,000 bills. Coins have NT\$1, 5, 10, 20 and 50 denominations. Major credit cards are accepted in many shops, but traveler's cheques might be accepted only in tourist-oriented shops and hotels.

### **Public Telephone Services**

Public telephones are either coin-operated or card-operated. All local and domestic long-distance calls are timed. The basic charge for a local call is NT\$1. Telephone cards can be purchased in most convenience stores. International Direct Dial (IDD) calls can be made

by dialing the international access code 002 + country code + area code (without the preceding "0") + local number. Just dial the 8-digit numbers for calls inside Taipei (area code "02"); dial the area code ("03" for Hsinchu) plus the number if you are dialing to outside Taipei. International reverse-charge and credit-card calls can be made through dedicated telephones located at international airports and major hotels. You can also use the AT&T Direct service number 0080-1102-880 or Sprint service number 0080-1140-877 if you have an account with them. For English-speaking directory assistance in Taipei, call 106. Copy and telefax facilities are available in most convenience stores, major post offices and tourist hotels.

### **Shopping and VAT Refund for Tourists**

The 5 % sales tax is included in the sale price. Bargaining is common in traditional stores or night markets, but not in departmental stores. Foreign passengers, who on the same day and from the same authorized TRS (Tax-Refund Shopping)-labeled store purchased more than NT\$3,000 (VAT inclusive) of goods eligible for VAT refund and who exit Taiwan with the goods within thirty days from the date of purchase, may claim for refund upon departure. Please proceed to the "Foreign Passenger VAT Refund Service Counter" of the Customs Service located in the airport and present the Application Form for VAT Refund, the passport (travel document or entry/exit permit), the goods to be carried out of the country and the original copy of the "uniform invoice" to the Customs officers for verification and approval. After verification, the Customs officers will issue the "VAT Refund Assessment Certificate". Present the "VAT Refund Assessment Certificate" to the designated bank located in the airport or at the seaport to receive the payment of the VAT refund. Please read the web site <http://www.ntat.gov.tw/english/03information.htm> or call the tourist bureau at (02)2717-3737 or 0800-011765, or the CKS service center at (03)383-4631 for details.

### **Tipping**

In general, there is *no tipping* in Taiwan! You do not have to tip waiters and taxi drivers. However, in some international hotels, such as the *Grand Hotel*, tipping hotel porters and maids will be appreciated. In some restaurants a 10 % service charge is automatically included. All other tipping is optional.

## Telephones of Airlines

Terminal 1				Terminal 2			
	Airline	Reservation	Airport		Airline	Reservation	Airport
CI	China Airline	(02)2715-1212	(03)3982451	AA	American	(02)2563-1200	(03)3983525
CO	Continental	(02)2719-5947	(03)3833858	AC	Air Canada	(02)2507-5500	(03)3982968
CX	Cathay Pacific	(02)2715-2333	(03)3982501	BR	Eva Air	(02)2501-1999	(03)3982968
EG	Japan Asia	0800-065-151	(03)3982282	EL	Air Nippon	(02)2501-7299	(03)3982968
KE	Korean Air	(02)2518-2200	(03)3834106	KL	KLM Asia	(02)2711-4055	(03)3833034
NW	Northwest	(02)2772-2188	(03)3982471	SQ	Singapore	(02)2551-6655	(03)3983988
TG	Thai Airways	(02)2509-6800	(03)3834131	UA	United	(02)2325-8868	(03)3982781
AF	Air France	(02)2718-1631		DL	Delta	(02)2551-3656	
AY	Finn Air	(02)2773-3266 #138		LH	Lufthansa	(02)2325-2295	
BA	British Air	(02)2512-6888		LX	Swiss Air	(02)2507-2213	

## Foreign Consulates in Taiwan

<b>ASIAN AND PACIFIC COUNTRIES</b>	
Australian Commerce and Industry Office	(02)8725-4100
Korean Mission in Taipei	(02)2758-8320
Singapore Trade Office in Taipei	(02)2772-1940
<b>EUROPEAN COUNTRIES</b>	
Belgian Trade Association, Taipei	(02)2715-1215
British Trade and Cultural Office	(02)2322-4242
Danish Trade Organizations' Taipei Office	(02)2718-2101
Finland Trade Center	(02)2722-0764
French Institute in Taipei	(02)2545-6061
Deutsche Institute Taipei	(02)2501-6188
Italian Economic, Trade and Cultural Promotion Office	(02)2345-0320
Netherlands Trade and Investment Office	(02)2713-5760
Norwegian Trade Council	(02)2543-5484
Spanish Chamber of Commerce	(02)2518-4901
Swedish Trade Council	(02)2757-6573
Trade Office of Swiss Industries	(02)2720-1001
<b>AMERICAN COUNTRIES</b>	
American Institute in Taiwan, Taipei Office	(02)2709-2000
Canadian Trade Office in Taipei	(02)2547-9500

## Useful English-Chinese Translation

English	Chinese
Please take me to ---	請帶(載)我去----
the Grand Hotel	圓山大飯店
CKS international airport	中正國際機場
Yuanshan MRT station	圓山捷運站
the nearest MRT station	最近的捷運站
the Taipei Main (Railway/MRT) Station	台北火車站
Can you show me the way to --- ?	請問 --- 怎麼走?
the bus station	巴士站
the Grand Hotel	圓山大飯店
Yuanshan MRT station	圓山捷運站
the nearest MRT station	最近的捷運站
the Taipei Main (Railway/MRT) Station	台北火車站
the nearest convenience store	最近的便利商店
How to take MRT to Yuanshan Station?	請問往圓山的捷運怎麼搭?
Which platform for Yuanshan Station?	請問往圓山的捷運在那一個月台?
When the train reaches Yuanshan Station, please remind me to disembark.	到圓山站時，請提醒我下車。
Where shall I wait for the shuttle bus of the Grand Hotel ?	請問往圓山大飯店的免費交通車在那裡等?
Thank you. (Shay <sup>4</sup> Shay <sup>0</sup> ) <sup>a</sup>	謝謝。
Excuse me. (Duay <sup>4</sup> Buh <sup>4</sup> Chi <sup>3</sup> )	對不起。
You are welcome (Buh <sup>2</sup> Ker <sup>4</sup> Chi <sup>4</sup> )	不客氣。
How are you? (Nee <sup>2</sup> How <sup>3</sup> Mah <sup>1</sup> )	你好嗎。
How much? (Duow <sup>1</sup> Shau <sup>3</sup> Chien <sup>2</sup> )	多少錢。
Can you lower the price? (Pien <sup>2</sup> Yi <sup>2</sup> Yi <sup>1</sup> Di-en <sup>3</sup> How <sup>3</sup> Buh <sup>4</sup> How <sup>3</sup> )	算便宜一點好嗎?
Good Bye (Tsai <sup>4</sup> Jien <sup>4</sup> )	再見

<sup>a</sup>Intonation is denoted as a superscript.