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# University of Colorado at Boulder

JILA

Campus Box 440 Boulder, Colorado 80309-0440 (303) 492-7789 E-mail: reception.desk@jila.colorado.edu Fax: (303) 492-5235

August 25, 1997

Air Force Office of Scientific Research 110 Duncan Avenue, Suite B115 Bolling Air Force Base Washington DC 20332-8080

Final Report: Gordon Research Conference

The Gordon Conference on Atomic and Molecular Interactions was held in New London, New Hampshire at Colby Sawyer College from June 30 to July 5, 1996. The conference was very well attended (over 110 attendees, see attached lists) by a broad spectrum of people from academia, industry and government laboratories, both US and foreign scientists, senior researchers, young investigators, postdoctorals and graduate students. The funds from the AFOSR were used to subsidize graduate student and postdoctoral conference fees, as well as help defray travel costs for the invited speakers and session chairs.

In designing the formal speakers program, emphasis was placed on current unpublished research and discussion of future target areas in the field. The time for formal presentations was limited in the interest of group discussions, which followed each of the talks. Poster sessions were held on each of the conference nights (Monday-Thursday) in order that more opportunities for communication of recent research results could be provided. Attached is a list of the formal speaker program and poster sessions. In addition to these formal interactions, free time was scheduled to promote more informal scientific discussions, which are of course very important in fostering new collaborations and joint efforts in the field.

As you know, in the interest of promoting the presentation of the very latest and ground-breaking results (which are therefore typically unpublished), Gordon Research Conference does not permit publication of any proceedings or abstracts associated with the meeting. If you wish for any further details, please feel free to contact me. Once again, I would like to thank the AFOSR for their support of the Atomic and Molecular Interactions Gordon Conference.

Sincerety, David Neshitt

1996 Chair, Atomic and Molecular Interactions Gordon Conference





## 1996 Gordon Research Conference Atomic and Molecular Interactions

David Nesbitt (chair, JILA/University of Colorado) Robert Wyatt (vice-chair, University of Texas)

A. Sunday PM: State-to-State Dynamics (session chair, John Zhang, New York University)

- 1. Henning Meyer, University of Bern/University of Georgia, "Counterpropagating pulsed molecular beam scattering"
- 2. Joel Bowman, Emory University, "Quantum and classical photodissociation calculations of ICN and Ar-H2O respectively"
- 3. Fleming Crim, University of Wisconsin, "State-to-state dynamics and controlled bond cleavage"

B. Monday AM: Highly Quantum Systems (session chair, Roger Miller, University of North Carolina)

- 1. Takeshi Oka, University of Chicago, "Spectroscopy and dynamics of the highly quantum system; Parahydrogen crystal"
- 2. Birgitta Whaley, University of California, Berkeley, "Doped quantum clusters superfluids and superclusters"
- 3. Peter Toennies, Max Planck Institute, Goettingen, "High resolution molecular spectroscopy in liquid helium droplets"
- C. Monday PM: New Physics with Laser Cooled Atoms (session chair, John Weiner, University of Maryland) 4. Carl Wieman, JILA/University of Colorado, "Bose-Einstein condensation in ultracold gas"
  - 5. David Pritchard, MIT, "Atom interferometers and their scientific applications"
- D. Tuesday AM: Reactions in Clusters (session chair, David Clary, Cambridge University)
  - 1. Marsha Lester, University of Pennsylvania, "Spectroscopy and reaction dynamics of OH-H2/D2 entrance channel complexes"
  - 2. Zlatko Bacic, New York University, "Quantum dynamics of small hydrogen-bonded clusters"
  - 3. Jean Paul Visticot, Orsay, "Cluster isolated chemical reaction"
- E. Tuesday PM: Molecular Ion Clusters (session chair, Tim Zwier, Purdue University)
  - 4. Evan Bieske, University of Melbourne, "Infrared studies of proton-bound complexes: He, Ne and Ar atoms attached to HN2+ and HCO+"
  - 5. Dan Neumark, Berkeley, "Time-resolved studies of photodissociation in negative ions"
- F. Wednesday AM: Atomic and Molecular Scale Imaging (session chair, Paul Weiss, Pennsylvania State University)
  - 1. Charles Lieber, Harvard University, "Chemical force microscopy: probing and imaging intermolecular interactions in solution"
  - 2. Jay Trautman, Bell Labs
  - 3. W.E. Moerner, IBM/University of California, San Diego, "Optical spectroscopy of individual molecules in solids"
- G. Wednesday PM: Molecule-Surface Interactions (session chair, Bruce Kay, Pacific Northwest Lab)
  - 4. Ron Naaman, Weizmann Institute, Rehovot, Israel, "Electron transfer through organized organic filmsmonitored by scattering and other methods".
  - 5. Andy Kummel, University of San Diego, "Chemisorption dynamics of interhalogen molecules"
- H. Thursday AM: Photomolecular Interactions (session chair, Laurie Butler, University of Chicago)
  - 1. Alec Wotdke, University of California, Santa Barbara, "Collisional energy transfer in highly vibrationally excited O2"
  - 2. Pat Vacarro, Yale University, "Sub-doppler nonlinear spectroscopy as a probe of photodissociation dynamics"
  - 3. David Chandler, Sandia National Laboratories, Livermore, "Multiphoton photofragment imaging: The non resonant photodissociation of H2, D2 and H"
- I. Thursday PM: Interatomic Forces in Ions (session chair, Jeremy Hutson, University of Durham)
  - Alan Carrington, University of Southampton, "Ion beam microwave spectroscopy: Studies of long-range atom/atomic ion interactions"

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APPLICANT NAME ORGANIZATION		TO CHRMN			STATUS	FUND
FRANCOIS G AMAR UNIVERSITY OF MAINE	1001256	MAY-20-96	RGSTD	POSTR		
DAVID T ANDERSON UNIVERSITY OF COLORADO	1001456	MAY-15-96	RGSTD	POSTR		
FRANCISCO J AOIZ UNIVERSIDAD COMPLUTENSE	1001871	MAR-15-96	ACCPT	POSTR		
ZLATKO BACIC NEW YORK UNIVERSITY	1002860	APR-05-96	RGSTD	SPKR		465.00
DELROY BAUGH UCLA	1004180	MAY-23-96	ACCPT	POSTR		
DEIRDRE A BELLE-OUDRY CORNELL UNIVERSITY	1004772	MAY-13-96	RGSTD	POSTR		
CHRISTOPHER J BENDER ALBERT EINSTEIN COLLEGE O	1095710 7 MED	MAR-15-96	RGSTD	POSTR		
EVAN BIESKE THE UNIVERSITY OF MELBOURI	1005860	APR-05-96	RGSTD	SPKR		465.00
DAVID A BLANK UNIVERSITY OF CALIFORNIA		MAY-15-96	RGSTD	POSTR		• <b>*</b> *
JOEL BOWMAN EMORY UNIVERSITY	1097884	APR-05-96	RGSTD	SPKR		465.00
PHILIP R BROOKS RICE UNIVERSITY	1008385	MAR-29-96	RGSTD	POSTR		
ROBERT BUKOWSKI UNIVERSITY OF WARSAW	1099105	APR-19-96	RGSTD	POSTR		
PHIL BUNKER NRC OTTAWA CANADA	1096436	MAR-15-96	RGSTD	POSTR		
LAURIE J BUTLER UNIVERSITY OF CHICAGO	1009561	APR-05-96	RGSTD	DISCL		465.00
ALAN CARRINGTON UNIVERSITY OF SOUTHAMPTON	1097882~	APR-05-96	RGSTD	SPKR		465.00
UNIVERSITY OF WARSAW	2095568	MAR-15-96	RGSTD	POSTR		
DAVID CHANDLER SANDIA NATIONAL LABORATOR	1011240 IES	APR-05-96	RGSTD	SPKR		465.00
YONGQIN CHEN UNIV. OF CALIFORNIA, BERK	1011907 ELEY	MAY-31-96	ACCPT	POSTR		
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CAROLINE E DESSENT		1086000	MAR-15-96	RGSTD	POSTR		
YALE UNIVERSITY LAURA DODECK CORNELL UNIVERSITY		1100870	MAY-20-96	RGSTD	POSTR		
CORNELL UNIVERSITY RAINER A DRESSLER PHILLIPS LABORATOR	Y. USAF	1018212	MAY-13-96	RGSTD	POSTR	:	
RONALD J DUCHOVIC INDIANA UNIVERSITY		1018402 UNT	MAR-15-96	RGSTD	POSTR		
PATRICK DUPRE GRENOBLE HIGH MAGN		1099469	APR-25-96	RGSTD	POSTR		
JEANETTE FISS UNIVERSITY OF TLL.	NOTS	1100695	MAY-15-96		POSTR		
PATRICK E FLEMING TULANE UNIVERSITY		1097773	APR-01-96	RGSTD	POSTR		
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MARK C GARNER UNIVERSITY OF CALI	FORNTA AT	1099135 'SA	APR-22-96				
GREGORY I GELLENE TEXAS TECH UNIVERS	ITY	1024410	MAR-15-96		POSTR		
BROWN UNIVERSITY		1026758	MAR-29-96		POSTR		
UNIVERSIII OF CALL	FORNIA	1100754	MAY-17-96	RGSTD	POSTR		
GREGORY E HALL BROOKHAVEN NATIONA	L LABORAT	1028197 ORY	MAY-02-96	RGSTD	POSTR		
HENDRIK HAMANN UNIVERSITY OF COLC		1100693	MAY-15-96	RGSTD	POSTR		
JEANNE M HOSSENLOPP MARQUETTE UNIVERSI		1032135	APR-02-96	RGSTD	POSTR		
PAUL L HOUSTON CORNELL UNIVERSITY		1032216	MAR-15-96	CANCL	ATTND		

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UNIVERSITY OF DURHAM		MAR-15-96				465.00
BOGUMIL JEZIORSKI THE UNIVERSITY OF WARSAW	1099104	APR-19-96	RGSTD	POSTR		
BRUCE D KAY PACIFIC NORTHWEST NATIONAL	3036780 LAB	MAR-29-96	RGSTD	SPKR		465.00
JAMES S KELLER UNIVERSITY OF NOTRE DAME		MAY-16-96	RGSTD	POSTR		
	1038288	MAR-22-96	RGSTD	POSTR		
	1038620	MAY-17-96	ACCPT	ATTND		
WEI KONG OREGON STATE UNIVERSITY	1039101	MAY-08-96	RGSTD	POSTR		
BRENT D KOPLITZ	1039193	MAR-15-96	RGSTD	ATTND		
TULANE UNIVERSITY JOHN R KRENOS RUTGERS, THE STATE UNIVERS		APR-02-96	RGSTD	ATTND		
M. KRISHNAMURTHY JILA		MAY-09-96	RGSTD	POSTR		
ANDY KUMMELL UNIVERSITY OF SAN DIEGO	1097881	APR-05-96	RGSTD	SPKR		465.00
ROBERT J LE ROY UNIVERSITY OF WATERLOO	1084386	APR-01-96	RGSTD	ATTND		
SUNGYUL LEE KYUNGHEE UNIVERSITY, KOREA		MAR-15-96	RGSTD	POSTR		
MARSHA I LESTER UNIVERSITY OF PENNSYLVANIA	2042817	MAR-22-96	RGSTD	SPKR		465.00
KEN G LIBBRECHT CALTECH CHARLES M LIEBER	1097538			ATTND		
HARVARD UNIVERSITY	2043423	APR-05-96	RGSTD	SPKR		465.00
LI LIU BROOKHAVEN NATIONAL LABORA	1101764 ATORY	JUN-14-96	ACCPT	ATTND		
K. THOMAS LORENZ TULANE UNIVERSITY		MAR-15-96		POSTR		
VICTOR F LOTRICH UNIVERSITY OF DELAWARE	1099741	APR-30-96	RGSTD	POSTR		

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H. PETER LU						
PACIFIC NORTHWESTERN NATI	ONAL	MAR-10-96	RGSTD	POSTR		
STUART MACKENZIE		MAY-15-96	CANCL	ATTND	·	
JORG MAIN UNIVERSITY OF SOUTHERN CA	1100493	MAY-13-96	RGSTD	POSTR		
ERIC MAS		APR-30-96	RGSTD	POSTR		
UNIVERSITY OF DELAWARE HOWARD MAYNE	1047672	MAR-15-96	RGSTD	POSTR		
UNIVERSITY OF NEW HAMPSHI RUTH MC DIARMID	1047795	JUN-07-96	RGSTD	ATTND		
NATIONAL INSTITUTES OF HE ANNE B MCCOY	1100533	MAY-14-96	RGSTD	POSTR		
THE OHIO STATE UNIVERSITY J. DOUGLAS MCDONALD UNIVESITY OF ILLINOIS	1048194					
CORNELL INTVERSITY		MAY-13-96				
MIKHAIL M MESTECHKIN INSTITUTE OF PHYS-ORGANIC	2090133	MAR-15-96	CANCL	POSTR		
HENNING MEYER UNIVERSITY OF GEORGIA		APR-05-96	RGSTD	SPKR		465.00
CHRIS A MICHAELS COLUMBIA UNIVERSITY CHEMI	1049563	APR-15-96	RGSTD	POSTR		
ROGER E MILLER	1049968	APR-05-96	RGSTD	DISCL		465.00
UNIVERSITY OF NORTH CAROI W E MOERNER UCSD	1050502	APR-05-96	RGSTD	SPKR		465.00
JAMES T MUCKERMAN BROOKHAVEN NATIONAL LABOF		APR-30-96	RGSTD	POSTR		
RON NAAMAN WEITZMANN INSTITUTE	1052244	MAY-15-96	RGSTD	SPKR		465.00
DAVID NESBITT UNIVERSITY OF COLORADO	1053041	MAR-29-96	RGSTD	CHAIR		465.00
DAN NEUMARK U.C. BERKELEY	1053124	MAR-15-96	RGSTD	SPKR	·	465.00
JAY A NIESSE UNIV OF NEW HAMPSHIRE	1053494	MAR-15-96	RGSTD	POSTR		

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SIMON NORTH BROOKHAVEN NATION			MAY-16-96				
TAKESHI OKA UNIVERSITY OF CHIC	CAGO	2095316	APR-23-96	RGSTD	SPKR		465.00
LEONARD PIPES UCLA			MAY-23-96	ACCPT	ATTND		
DAVID E PRITCHARD MIT			APR-05-96		SPKR		465.00
CHARLES X. W QIAN UNIVERSITY OF VIC	FORIA	1099260	APR-23-96	RGSTD	ATTND		
YANHUI QIU NEW YORK UNIVERSI	rv	1099106	APR-19-96	RGSTD	ATTND		
RICHARD L REDINGTON TEXAS TECH UNIVERS	SITY	1089018	APR-29-96	RGSTD	POSTR		
JAMES H REHO PRINCETON UNIVERS	ITY	1099596	APR-29-96	RGSTD	POSTR		
STEPHEN B ROSS CALTECH		1097539	MAR-29-96	CANCL	ATTND		
ALEXANDER RUDAVETS MPHTI		2099606	MAY-08-96	ACCPT	POSTR		
DUBRAVKO SABO NEW YORK UNIVERSI	ſY	1099108	APR-19-96	RGSTD	POSTR		
JOANNA SADLEJ UNIVERSITY OF WARS	SAW	1100133	MAY-07-96	RGSTD	POSTR		
CHARLES SCHMUTTENMAN YALE UNIVESITY	ER	2065480	APR-29-96	RGSTD	POSTR		
REBECCA SCHWARTZ UNIVERSITY OF PENN	ISYLVANIA	1096613	MAR-15-96	RGSTD	POSTR		
AMIT SINHA UNIVERSITY OF CALL	FORNIA	1068636	MAY-20-96	RGSTD	POSTR		
PETER E SISKA UNIVERSITY OF PITT	SBURGH	1068723	APR-30-96	RGSTD	POSTR		
JAMES J SLOAN UNIVERSITY OF WATE	ERLOO	1086234	MAR-15-96	CANCL	ATTND		
JOHN E SMEDLEY BATES COLLEGE	· · ·	1069047	APR-23-96	RGSTD	POSTR		
MARK SMITH UNIVERSITY OF ARI2	ZONA	1084759	APR-29-96	RGSTD	POSTR		

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EIL SNIDER NORTHWESTERN UNIVI			MAR-29-96				
IMOTHY P SOFTLEY OXFORD UNIVERSITY		1069607	APR-30-96	RGSTD	POSTR		
ARIANNE SOWA RESAT UC SAN DIEGO		1099136	APR-22-96	RGSTD	POSTR		
RZYSZTOF SZALEWICZ	Y	1085141	APR-15-96	RGSTD	ATTND		
HARVARD UNIVERSITY USIE TAYLOR SOUTHAMPTON UNIVER	RSITY	1099468	APR-25-96	RGSTD	ATTND		
. PETER TOENNIES MAX-PLANCK-INST FU			APR-05-96	RGSTD	SPKR		465.00
ICHAEL R TOPP UNIVERSITY OF PEN	NSYLVANIA	1074709	MAR-15-96	ACCPT	POSTR		
AY K TRAUTMAN SBQ LTD. USY N TSANG		2074939	APR-05-96	RGSTD	SPKR		465.00
USY N TSANG HARVARD UNIVERSIT	Y	1100756	MAY-17-96	RGSTD	POSTR		
ULIA UPPENBRINK SCIENCE		1095712	MAR-15-96	RGSTD	ATTND		
ATRICK H VACCARO YALE UNIVERSITY		1076007	APR-05-96	RGSTD	SPKR		465.00
(ICHAEL VAKSMAN UNIVERSITY OF DET)			MAR-15-96	RGSTD	POSTR		
NTONIO J. C VARAND UNIVERSIDADE DE CO		1101408	JUN-07-96	RGSTD	ATTND		
EAN-PAUL VISTICOT COMMISIARIAT A WE	NERGIE ATO	1077378 DMIQ	APR-05-96	RGSTD	SPKR		465.00
NDREJ VOTAVA JILA		1101410	JUN-07-96	RGSTD	ATTND		
TEPHEN P WALCH NASA AMES RESEARC	H CENTER	1077963	MAY-16-96	RGSTD	POSTR		
ARK C WALL BOSTON UNIVERSITY		1100635	MAY-15-96	ACCPT	POSTR		
NDY WALTON UNIVERSITY OF MAR	YLAND	1097422	MAR-29-96	RGSTD	POSTR		
OHN WEINER UNIVERSITY OF MAR	YLAND	2095790	APR-05-96	RGSTD	DISCL		465.00

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K. BIRGITTA WHALEY UNIVERSITY OF CALIFOR	1079814 NIA BERK	APR-08-96	RGSTD	SPKR	465.00
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	ES AVAILABLE: AVAILABLE	12	
TOTAL	OPEN	9 0	
	ATTENDEES ACCEPTED REGISTERED	123 113	
	CANCELLED WAIT LISTED	6 0	
	CLOSED OUT GUESTS ACCEPTED	0 1	

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# 1996 GORDON CONFERENCE ATOMIC AND MOLECULAR INTERACTIONS

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#### MONDAY POSTERS

(please take these posters down by 12 noon on Tuesday)

 Anderson, David Davis, S. Nesbitt, D. Slit Jet Discharges: A Novel, Intense Source of Supersonically Cooled Radicals and Molecular Ions
 Belle-Oudry, Deirdre McKay, R. Westley, M. Houston, P.

Studies of the Reaction of OH Radicals with Organophosphates

3. Bender, Christopher

Pulsed Electron Magnetic Resonance as a Probe of Weak Interactions in Supramolecular Assemblies

4. Blank, David North, Simon Stranges, D. Suits, A Lee, Y. T.

- The Photodissociation of DMSO-h6 and DMSO-d6 at 193nm Studied by Photofragment Translational Spectroscopy 5. Bukowski, Robert Jeziorski, B Szalewicz, K
- Basic Set Superposition Problem in Interaction Energy Calculations... Saturated second- and third-oder Energies for He<sub>2</sub> 6. Bunker, P. R.
  - The Proton Rearrangement Dynamics and Spectrum of CH5<sup>+</sup>
- 7. Chalasinski, Grzegorz
  - Ab Initio Studies of Open-Shell Interactions
- 8. Chen, Y.
  - Femtosecond time-resolved photoelectron spectroscopy
- 9. Clary, D. C. Gregory, J. K.
  - Quantum Simulation of Water Clusters
- 10. Continetti, R. Hanold, K. Garner, M.
- Photoelectron/photofragment angular correlations and energy partitioning in the dissociative photodetachment of O4<sup>-</sup> Dessent, Caroline Serxner, D Johnson, M. A. Bailey, G. Kim, J.
  - 11. Observation of the Precursor to Charge-Transfer-to-Solvent Bands of Solvated Iodine in Small Gas Phase Clusters.
  - 12. Infrared Spectroscopy of Negative Ion Clusters: Hydrated Electrons and Hydrated Iodode I<sup>-</sup>(H<sub>2</sub>O)
- 13. Dodeck, L. Kong, W. Hepburn, J. Houston, P.
  - Photodissociation Dynamics of Glyoxal
- Dressler, Rainer Bastian, M Levandier, D Murad, E Collision-Induced Dissociation and Photodissociation Studies of the (N2O.H2O)<sup>+</sup> Cluster Ion
- 15. Duchovic, R. J. Pettigrew, J. D. Welling, B. Shipchandler, T. A Fundamental Combustion Process: H(D)+O<sub>2</sub>
- Dupre, Patrick Muller, T Zhang, Q Vaccaro, P. H. Spectroscopy of the S2O Ground Electronic State: Comparison between DLIF and SEP-DFWM Techniques
- 17. Fiss, Jeanette Zhu, Langchi Wada, R Gordon, R Control the Product Distribution in the Photo-Excitation of DI with Coherent Laser Fields
- 18. Fleming, Patrick Cowen, K Lorenz, K Herman, M Koplitz, B
- Nuclear Hyperfine Populations in the Ground State of Atomic Hydrogen Using Velocity-Aligned Doppler Spectroscopy 19. Galetich, Igor
  - Experimental Study of Protein-Nucleic Acid Base Interactions Involving Amide Group
- 20. Garner, Mark Hanold, K. Resat, M. Continetti, R. Dissociation Dynamics of the Low-Lying Excited States of O3

## **TUESDAY POSTERS**

(please take these posters down by 12 noon on Wednesday)

1. Greene, E. F. Meli, C. A. Yang, H. Similarities in the Reconstruction of Ge(111) and Si(111) Surfaces at High Temperatures and a Model for Them 2. Gulding, S Hou, H. Wodtke, A. Auerbach, D. Rettner, C. State-Specific Alignment of Hydrogen Desorbed from Cu(111) Hall, Gregory North, S. Sears, T. 3. Transient FM Spectroscopy: Applications in Chemical Dynamic, Spectroscopy and Kinetics 4. Unimolecular Dissociation of NCCN 5. Hossenlopp, Jeanne Zhang, Y Christophy, E Myli, K Investigation of Photodissociation Processes in Complex Molecules 6. Hurwitz, Y. Stern, P. Naaman, R. Reactivity Induced by Complex Formation: The Reaction of O(<sup>3</sup>P) with HCl Dimers 7. Jeziorski, Bogumil Korona, T Moszynski, R Convergence Properties of Perturbation Theory for Interaction of He and H2 with He 8. Keller, James Dowd, T Miller, L Schehr, C Burca, G Two-Color, Laser-Induced Grating Spectroscopy: a Multidimensional Probe of Excited State Dynamics Kleiber, Bruce Wong, T. Cheng, Y. Chen, J. Freel, C. Ding, L. 9. Chemical Dynamics of Mg\*/Mg<sup>+\*</sup>---CH4 Reactions 10. Photodissociation Spectroscopy of Mg2+---CO2/H2O/CH4 Ion-Molecule Complexes 11. Knight, Alan Bradley, A Butz, K Internal Rotor-Overall Rotation Interactions in Substituted Toluenes: Comparison of Theory and Experiment 12. Kong, Wei Lai, S. Y. Broughton, S. Photochemistry of diazines in the ultraviolet 13. Krenos, John Rickey, D Molecular Beam Study of the Collisions of State-Monitored, Metastable Noble Gas Atoms with  $O_2(X^3E_g^{-1})$ 14. Krishnamurthy, M. Gouw, J Bierbaum, V Leone, S Cluster Ion Mobilities: Ionic Structures and Interaction Potentials 15. Lee, Sungyul Selective Production of Photofragments along Asymmetric Resonances in OH Photodissociation 16. Libbrecht, Ken Boyd, R Bliss, J Progress Toward Achieving Bose-Einstein Condensation in Gaseous Cesium 17. Lotrich, Victor Szalewicz, K Symmetry-Adapted Perturbation Theory of Three-Body Nonadditivity of Ar Gellene, Gregory Yoo, R. Sharpe, S. 18. Symmetry Induced Kinetic Isotope Effects in the Formation of Ar-CO<sub>2</sub><sup>+</sup> 19. Ab Initio Investigations of Polyiodide Anions

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## WEDNESDAY POSTERS

(please take these posters down by 12 noon on Thursday)

1. Lu, Peter Xie, X. S. Room Temperature Studies of Single Molecule Spectroscopy and Chemical Dynamics 2. Main, Jorg Taylor, H. Physical Interpretation of Dynamical Processes in Small Molecules Exhibiting Chaos 3. Mas, Eric Szalewicz, K. Effects of Monomer Geometry on Depth of Water Dimer Potential and Evaluation of Potential Energy Surface 4. Mayne, Howard Niesse, J. A. Global Minimization of Small Clusters Using the Space- Fixed Modified Genetic Algorithm Approach 5. McCoy, Ann Theoretical Studies of Chemical Reactions in Clusters: Transition State Dynamics of Arn (CIHC1) 6. Mestechkin, Mikhail Hartree-Fock Instability Threshold, Molecular Size, and Molecular-ion Transition 7. Michaels, Chris Mullin, A. S. Flynn, G. W. Collisional Quenching of Highly Vibrationally Excited Pyrazine by CO2: Excitation of the (1000)...Bath Vibrational Modes 8. Oian, Charles Loock, H. Cao, J. The Nonadiabiatic Photodissociation of BrNO at 355nm 9. Pipes, L. C. Baugh, D. Complete Chemical Reactions: The Photofragmentation of Polarized Molecules 10. Qiu, Yanhui Bacic, Z. Full-Dimensional Bound State Calculations for HC1 Dimer 11. Redington, Richard The Cyclobutadiene CB.AR, CB.CO, and CB.CO2 Complexes; the Ar/CB Matrix System 12. Reho, J. Higgins, J Stienkemeier F Ernst, W Lehmann, K Gutowski, M Scoles, G Spectroscopy and Photoinduced Chemical Dynamics of High Spin Alkali Trimers 13. Resat, S. Zengin, V. Hanold, K. Continetti, R. E. Dissociative Photodetachment and Photodissociation of N3O2-14. Ross, Stephen Lang, S Lucke, S Kanorsky, S Weis, A Hansch, T Atomic Spectroscopy of Cesium Trapped in Solid Helium 15. Rudavets, Alexandr Akulin, V. M. Dykhne, A. M. Dubovitskii, V. A. Photon Echo of Photodissociation by Properly Tailored Laser Pulses 16. Sabo, D. Bacic, Z. Three-Dimensional Model Calculations of Torsional Levels of (H2O)3,.... 17. Sadlej, J. Williams, H. Szalewicz, K. Symmetry-Adapted Perturbation Theory for the Interaction of Two CO<sub>2</sub> Molecules 18. Schuttenmaer, Charles Femtosecond THz Pulse Spectroscopy: A Unique Tool 19. Schwartz, Rebecca Giancarlo, L. Bonn, R. Loomis, R. Lester, M. Intermolecular Vibrations and Relaxation Dynamics of OH-N2 Complexes 20. Sinha, A Barnes, R. Gross, A. Photodissociation Dynamics of Vibrationally Excited Molecules: HN3 and H2O

# THURSDAY POSTERS

(please take these posters down by Friday morning at 9AM)

1. Siska, Rebecca Longley, E. J. Penning Ionization Dynamics: Coupling between Recoil Angle and Recoil Energy 2. Smedley, J. E. Coulter, S. K. Zomlefer, K. Energy Transfer in Ba(5d7p) <sup>3</sup>D<sub>1</sub> Rare Gas Collisions 3. Smith, Mark Ion-Molecule and Radical Molecule Reaction Rates in Supersonic Flows 4. Softley, T. P. Mackenzie, S. R. Rolland, D. Dickinson, H. Production and Reaction of Rotationally State-Selected Ions Using Pulsed-Field Techniques 5. Szalewicz, Krzysztof Symmetry-Adapted Perturbation Theory of Intermolecular Interactions 6. Tsang, Susy Chuang, C-C Klemperer, W. Overtone Spectroscopy and Intermolecular Vibrational State Dependence of the Predissociation Rate of N2HF 7. Vaksman, Michael Podgorski, I. Surface Light-Induced Flux Magnitude at Different Radiation Intensities 8. Varandras, A. J. C. Wang, W. On the O<sub>2</sub> (v') +O<sub>2</sub> (v") Atmospheric Reaction: a Quasiclassical Trajectory Study 9. Wall, Mark Wilson, E. L. Kennedy, M. Mullin, A. S. Energy Dependent Single Collision Energy Transfer: Probing of the Bath Gas to Understand Collisional Quenching 10. Walch, S. P. Theoretical Studies of the HO/HO<sub>2</sub> Catalytic Cycle for Ozone Destruction 11. Walton, Andy Genetic Algorithm for Determination of Global Minima of Atomic Clusters 12. Williams, Carl Obtaining Precise Information from Photoassociation Spectroscopy 13. Williams, Skip Rahn, L. Zare, R. N. Effects of Different Population, Orientation, and Alignment Relaxation Rates in Resonant Four-Wave Mixing 14. Wright, S. Dagdigan, P. J. Excited State Dynamics of the NCO Free Radical 15. Xu, Hao Low, R. J. Shafer-Ray, N. Zare, R. N. Measurement of the State Resolved Differential Cross Section for the Reaction H + D<sub>2</sub> at 2.2 eV 16. Young, Mark Photofragment Kinetic Energy Release in Hydrogen-Bonded and Charge Transfer Complexes 17. Zengin, V. Strong, K. M. Hanold, K. A. Continetti, R. E. Study of the Low-lying Electronic States of CCO by Photoelectron Spectroscopy of CCO-18. Zwier, T. Pribble, R. N. Gruenloh, C. Resonant Ion-Dip Infrared Spectroscopy of Hydrogen Bonded Clusters 19. Hamann, H. F. Kokubo, T. Gallagher, A. Nesbit, D. Near-Field Interactions of Molecules with Surfaces and Microstructures as probed by Fluorescence Properties Muckerman, J. Kaluza, M. 20. Bright-State Expansion and Optimal Control of Bond Selective IR Multiphoton Dissociation of linear HCCD 21. Bond Selective IR Multiphoton Excitation and Dissociation of linear HCCD

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