

1.) **Rachel S. Aga**

Near-Field Scanning Optical Microscopy of Living Cells and Artificial Lung Surfactant Membranes

Rachel S. Aga, Luka K. Kapkiai, Jonathan Carnell, Robert C. Dunn
Department of Chemistry, University of Kansas

2.) **Bruce J. Baer**

Vibrational spectroscopy of Dense Fluids at Ultrahigh Temperatures in a Diamond-Anvil-cell
Bruce Baer, Ken Visbeck and Choong-Shik Yoo, Lawrence Livermore National Laboratory

3.) **Joshua B. Ballard**

Observation of low lying molecular rydberg wavepackets

Joshua B. Ballard, Lutz Huwel, Xingcan Dai, Alan N. Arrowsmith, Hans U. Stauffer and Stephen R. Leone, JILA/University of Colorado/UC Berkeley

4.) **Jeffrey B. Barber**

Infrared and Coherent Raman Studies of Sulfur Trioxide

Jeffrey Barber, Engelene t.H. Chrysostom, Tony Masiello, Joseph W. Nibler, Arthur Maki, Alfons Weber, Thomas A. Blake, and Robert L. Sams, Oregon State University (Barber, Chrysostom, Masiello, Nibler); NSF (Weber); Pacific Northwest National Labs (Blake, Sams)

5.) **Hans A. Bechtel**

Vibrational Control of Simple Chemical Reaction

Hans A. Bechtel, Jon P. Camden, Richard N. Zare, Dept. of Chemistry, Stanford University

6.) **Vern G. Bittner Jr.**

Vacuum Ultraviolet Laser Induced Fluorescence (VUV-LIF) of Bromine Radicals for Atmospheric Detection and Characterization

V. Garrett Bittner, Francois Jeanneret, Geoff A. Blake, Paul O. Wennberg
California Institute of Technology

7.) **Joakim Bood**

Cavity-enhanced FM Spectroscopy of the Sixth Overtone Band of Nitric Oxide

J. Bood, D. L. Osborn, A. McIlroy, Sandia National Laboratories

8.) **Hu Cang**

Glass transition: a frustrated nematic-isotropic transition

Hu Cang, V.N. Novikov, Jie Li, Michael D. Fayer, Chemistry Department, Stanford University

9.) **Arindam Chowdhury**

Stark Spectroscopy of Helical H-/J-Aggregates of Cyanine Dyes Templated on Duplex DNA

Arindam Chowdhury, L. Angela Liu, Izzat Raheem, Liping Yu, David Yaron and Linda Peteanu, Department of Chemistry, Carnegie Mellon University, Pittsburgh, Pennsylvania

10.) **Paul H. Davis**

Femtosecond Pump-Probe Studies of Diphenyloctatetraene

P. H. Davis, A. W. Yee, S. Gerhardt, J. W. Lewis, D. S. Klier, J. Z. Zhang
Santa Clara University (Davis & Yee), UC-Santa Cruz (all others)

11.) **Christian D. Grant**

Ultrafast Electronic Relaxation and Coherent Vibrational Oscillation of Strongly Coupled Gold Nanoparticle Aggregates

Christian D. Grant, Adam M. Schwartzberg, Thaddeus J. Norman, Jr., and Jin Z. Zhang,
Department of Chemistry, University of California, Santa Cruz, CA 95064 USA

12.) **Bryan F. Henson**

The thermodynamics of ice interfaces via second harmonic generation

Bryan F. Henson, Laura Voss, Kevin R. Wilson and Jeanne M. Robinson, Los Alamos National Laboratory

13.) **John W. Hepburn**

Dyanamics of water decomposition on single crystal metal surfaces

M. Musa, G. Bussiere, J.W. Hepburn, Department of Chemistry, University of British Columbia

14.) **Alexandra A. Hoops**

Photodissociation spectroscopy and dynamics of CH₂CFO obtained with a new coincidence detection scheme

Alexandra A. Hoops, Jason R. Gascooke, Kathryn E. Kautzman, Ann Elise Faulhaber, and Daniel M. Neumark, Department of Chemistry, University of California, Berkeley, and Chemical Sciences Division, Lawrence Berkeley National Laboratories

15.) **Qichi Hu**

Threshold Ion-Pair production spectroscopy of HCl/DCl and HF/DF

Q.J. Hu, T.C. Melville, J.W. Hepburn, Chemistry Department, UBC

16.) **Leonard E. Jusinski**

pH measurements of p-Mercaptobenzoic Acid on single silver nanoparticles using Surface Enhanced Raman Spectroscopy

Leonard Jusinski and Chad Talley, Lawrence Livermore National Laboratory

17.) **Dmitri S. Kilin**

Wavepacket dispersion for exciton transfer in dimers

Dmitri S. Kilin, Yuri V. Peverezev, Oleg V. Prezhdo, University of Washington, Seattle, WA

18.) **Hope A. Michelsen**

Understanding and predicting the temporal response of laser-induced incandescence from carbonaceous particles

H. A. Michelsen, T. B. Settersten, P. O. Witze, E. H. Chrysostom, B. Axelsson, D. Kayes, and S. Hochgreb, Sandia National Laboratories/CA

19.) **Andreas Osterwalder**

Using Millimeter wave spectroscopy of high H₂-Rydberg states to determine the hyperfine structure of the H₂⁺ ion

Andreas Osterwalder, Frederic Merkt (1), Christian Jungen (2), (1) Physical Chemistry, ETH Zurich, 8093 Zuerich, Switzerland (2) Laboratoire Aime Cotton, CNRS, Campus d'Orsay, 91405 Orsay Cedex, France

20.) **Heather A. Rypkema**

Bounce-by-Bounce Cavity Ring-Down Spectroscopy

Heather A. Rypkema, Marion R. Martin, Richard N. Zare, Department of Chemistry, Stanford University

21.) **Vladimir Saik**

Photoinduced charge transfer and germinate recombination in liquids

V.O. Saik, J. Nanda and M.D. Fayer, Department of Chemistry, Stanford, CA

22.) **Timothy C. Steimle**

Molecular beam studies of iron and ruthenium containing radicals.

T.C. Steimle and Wilton Virgo, Dept. of Chemistry and Biochemistry, Arizona State University

23.) **Teresa L. Tarbuck**

The Influence of Adsorbed Atmospheric Gases on Interfacial Water Structure

T. L. Tarbuck, E. A. Raymond, and G. L. Richmond, University of Oregon, Department of Chemistry

24.) **Matthew R. Vernon**

Photochemical Lithography: Understanding the photochemistry of oxalyl chloride at 355 nm in the formation of patterned, acid chloride functionalized surfaces

M.R. Vernon, G.A. Husseini, C.W. Jones, M.C. Asplund, and E.T. Sevy, Brigham Young University

25.) **Haobin Wang**

Simulating Ultrafast Nonlinear Spectroscopy for Electron Transfer Reactions in the Condensed Phase

Haobin Wang and Michael Thoss, Department of Chemistry and Biochemistry, New Mexico State University, Las Cruces, NM 88003

26.) Mark R. Watry

The Effects of Halothane on Model Cell Membranes Composed of 1) Zwitterionic Phospholipids and 2) Charged Phospholipids

Mark R. Watry and G. L. Richmond, Gonzaga University and University of Oregon

27.) Susanna L. Widicus

Microwave, Millimeter, and Submillimeter Spectroscopy of Prebiotic Interstellar Molecules
Susanna L. Widicus (1), Kathryn A. Dyl (2), Geoffrey A. Blake (2), (1) Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA 91125, (2) Division of Geological and Planetary Sciences, California Institute of Technology, Pasadena, CA 91125

28.) Eloy R. Wouters

Studies of Highly Vibrationally Excited O₂(a,b,c) and their Atmospheric Relevance
Eloy R. Wouters, Konstantinos S. Kalogerakis, Gabriel A. Amaral, and Richard A. Copeland, Molecular Physics Laboratory, SRI International

29.) Jingsong Zhang

Photodissociation Dynamics of Small Hydrocarbon Free Radicals

Gabriel Amaral, Kesheng Xu, and Jingsong Zhang, Department of Chemistry, University of California, Riverside

1.) **John Asbury**

Multi-Dimensional Vibrational Correlation Spectroscopy of Hydrogen Bonded Systems
John B. Asbury, Tobias Steinel, Chris Stromberg and Michael D. Fayer, Stanford University

2.) **Matthew C. Asplund**

Time-resolved Infrared Spectroscopy of C-F Bond Activation Reactions
M.C. Asplund and J.A. Jakeman, Brigham Young University

3.) **Daniel J. Auerbach**

Surface Chemical Dynamics with vibrationally Excited Molecules
D.J. Auerbach*, J. White**, A.M. Wodtke**, *IBM Almaden Research Center, San Jose, CA,
**Dept. of Chemistry, UCSB, Santa Barbara CA

4.) **George L. Barnes**

Semi classical modeling of preferred senses of product rotation resulting from rotationally inelastic atom-diatom scattering: Rotational vs. Translational phase interference effects
George L. Barnes and Joseph I. Cline, Department of Chemistry and Chemical Physics Program, University of Nevada, Reno, NV 89557 USA

5.) **Kevin A. Becraft**

Adsorption Behavior of SDS onto the CaF₂ Surface. VSFS Studies of the Effect on H₂O Bonding Structure and Orientation
Kevin Becraft, Fred Moore, Geraldine Richmond, University of Oregon

6.) **Elena S. F. Berman**

Ultratrace Kinetics of Methylene Blue Reduction by CRDS
Elena S.F. Berman, Alexander J. Hallock, Richard N. Zare, Department of Chemistry, Stanford University

7.) **Carrie A. Brindle**

Ionization and fragmentation dynamics of molecules embedded in helium clusters
Carrie Brindle, Melissa Prado, Ken Janda, Department of Chemistry, University of California, Irvine

8.) **Molly C. Cavanagh**

Transient Hole Burning Experiments on Hydrated and Solvated Electrons
Molly Cavanagh, Ben Schwartz, University of California Los Angeles

9.) **Engelene t.H. Chrysostom**

Femtosecond Time-Resolved Photoelectron Imaging
Engelene t.H. Chrysostom, A. Khai Luong and Carl C. Hayden, Sandia National Laboratories/CA

10.) **Mattanjah S. de Vries**

REMPI and Hole Burning Spectroscopy of the Building Blocks of Life

L. Grace, K. Kleinermanns, E. Nir, A. Abu Riziq and M.S. de Vries, University of California Santa Barbara

11.) **Anthony Esposito**

Applications of Confocal Microscopy and Single-Molecule Spectroscopy to Biological Systems

Anthony P. Esposito, Chad E. Talley, Christopher W. Hollars, Thomas Huser, and Stephen M. Lane, Lawrence Livermore National Laboratory

12.) **Ziad Ganim**

Investigating the structure of the bathorhodopsin chromophore with Ab-initio calculations

Ziad Ganim, Richard A. Mathies, University of California Berkeley

13.) **Peter Geissinger**

Hole-Burning Spectroscopy in Porous Host Systems

Barry J. Prince and Peter Geissinger, Dept. of Chemistry, Univ. of Wisconsin-Milwaukee

14.) **Daniel P. Gerrity**

Resonance Raman Excitation Profile of Cr(CO)₆ in the Region of the First d-d Transition

Sterling Paramore, Kristina Wilson, Brooke Carlson, Daniel P. Gerrity, Reed College

15.) **Jennifer L. King**

Vibrational Sum Frequency Spectroscopy of Liquid Interfaces: Exploring Longer Wavelengths

Jennifer L. King, Dennis K. Hore, and Geraldine L. Richmond, Department of Chemistry, University of Oregon

16.) **Tony Masiello**

High Resolution CARS Spectroscopy of Carbon Suboxide

Tony Masiello, Joseph W. Nibler, Oregon State University

17.) **David W. McCamant**

Femtosecond Raman Gain Spectroscopy: Vibrational spectroscopy during ultrafast internal conversion

David McCamant, Phillip Kukura, and Richard A. Mathies, University of California, Berkeley

18.) **Laurie A. McDonough**

Microspectroscopic studies of vapor uptake in thin polymer films

Laurie McDonough*, Bogdan Dragnea, Jan Preusser, Chuck Blackledge, Zee Hwan Kim, Jodi Szarko, William Hinsberg and Stephen Leone, University of California Berkeley and Lawrence Berkeley National Laboratories

19.) **David S. Moore-Nichols**

Optical Measurements of Nuclear Pore Complex Conformational Dynamics

David Moore-Nichols, Elizabeth S. Erickson, Olivia L. Mooren, Robert C. Dunn, University of Kansas, Department of Chemistry

20.) **Julie A. Mueller**

Emission Spectroscopy of Photodissociating Methyl Formate

Levi J. Collier and Julie A. Mueller, Department of Chemistry, Santa Clara University

21.) **Sergey Nizkorodov**

Photochemistry of atmospheric particles studied using aerosol photodissociation spectrometry

Ahmad Alshawa, Anttoney Gomez, Ao Lin, Sergey Nizkorodov, Department of Chemistry, University of California at Irvine

22.) **Mark J. Perri**

Crossed Molecular Beam Studies of O¹D + CO₂: Results and Implications for the Atmosphere

Mark J. Perri, Annalise Van Wyngarden, Kristie Boering, Jim Lin, Yuan T. Lee, UC Berkeley Department of Chemistry, and; Earth and Planetary Sciences, and Academia Sinica, Taiwan.

23.) **Darcy S. Peterka**

Helium Droplet Photoionization

Darcy S. Peterka, Lionel Poisson, Musahid Ahmed, and Daniel M. Neumark, College of Chemistry, UC Berkeley, Chemical Science Division, LBNL

24.) **Janet Petroski**

FTIR Investigations of Au Clusters

Janet Petroski, Mei Chou, and Carol Creutz, Brookhaven National Laboratory, Department of Chemistry, Building 555, Upton, NY 11973

25.) **Andrei Piryatinski**

IR Photon Echo Spectroscopy of Liquid Water Simulation Study

Andrei Piryatinski*, C.P. Lawrence**, and J.L. Skinner**, *Los Alamos National Laboratories, **Department of Chemistry, University of Wisconsin-Madison

26.) **Kate L. Snyder**

Liquid-Phase Cavity Ring-Down Spectroscopy

Kate L. Snyder, Richard N. Zare, Department of Chemistry, Stanford University

27.) **Hans U. Stauffer**

Phase and Amplitude control of wavepackets on two electronic states of lithium dimer

Hans U. Stauffer, Elizabeth Mirowski, Joshua B. Ballard and Stephen R. Leone, JILA/University of Colorado/UC Berkeley

28.) Arthur Suits

Spectroscopy and Dynamics with Imaging

A.G. Suits, X. Liu, D. Townsend, R. Gross, M. Minitti, Department of Chemistry, Stony Brook University and Chemistry Dept., Brookhaven National Laboratory

29.) Craig A. Taatjes

The ν_1 overtone of the HO₂ radical

John D. DeSain, Craig A. Taatjes, Sandia National Laboratories/CA

30.) Donald C. Young

NMR As Titrator

Donald C. Young, ChevronTexaco ERTC, Richmond, CA

1.) **Andrew J. Alexander**

Brewster Angle Cavity Ringdown Spectroscopy
Andrew J. Alexander, University of Edinburgh

2.) **James D. Ayers**

Experimental Cross section for H+D₂->HD(v'=3, j'=0) + D as a function of angle and energy
James D. Ayers, Drew Pomerantz, Felix Fernandez-Alonso, Brian D. Bean, Florian Ausfelder, and Richard N. Zare

3.) **Frank G. Baglin**

Polar vs Non-polar Probes in SC Binary Solutions
W. Igbekoyi, J. Thiel and F. Baglin, Chemical Physics Program, U of Nevada

4.) **James W. Barr**

Collision induced product rotational orientation in inelastic bi-molecular cross beam scattering of NO with N₂
James W. Barr, Joseph I. Cline, Michael S. Elioff, and David W. Chandler, University of Nevada, Reno and Sandia National Laboratories/CA

5.) **Charles W. Blackledge**

Zinc Oxide Nanostructures and Optical Properties
C.W. Blackledge, J.M. Szarko, George Chan, Elizabeth Read and Stephen R. Leone, LBNL, UC Berkeley

6.) **Arthur E. Bragg**

Dynamics of electronically excited molecular anions via time-resolved photoelectron imaging (TRPEI)
Arthur E. Bragg, Alison V. Davis, Aster Kammerath, Roland Wester, Daniel M. Neumark, Department of Chemistry, UC Berkeley, Berkeley, CA 94720

7.) **Steven K. Buratto**

Single Molecule Spectroscopy of Conjugated Oligomers and Polymers: Shape-Dependent Luminescence
MA Summers, JP Schmidt, D Bussian, MR Robinson, JE Bushnell, PR Kemper, GC Bazan, MT Bowers and SK Buratto, Department of Chemistry and Biochemistry, UC Santa Barbara

8.) **Jose A. Cabrera**

Vibrational Predissociation lifetimes of NeBr₂
Craig Bieler, Jose Cabrera, Ken Janda, Department of Chemistry, University of California, Irvine

9.) **Susan T. Collins**

Gaussian Calculations on the Flavone, 5-Hydroxyflavone and 3-Hydroxyflavone. Explanation of Unusual Hydrogen Bonding Effects

Janet Petroski, Cindy DeSaValente, Eric Kelson, and Susan Collins, Department of Chemistry, California State University Northridge

10.) **David R. Crosley**

Jet-REMPI for Analytical Applications

David Crosley, Harald Oser, Michael Coggiola, Gregory Faris, SRI International

11.) **Michael S. Elioff**

Ion Imaging Studies of Collisions of NO($X^2\Pi_{1/2}$) with Ar and CH₄

Michael S. Elioff and David W. Chandler, Sandia National Laboratories/CA

12.) **Patrick E. Fleming**

Computational Investigations on Phosphorus-Containing Radicals

Adrienne Berka and Patrick E. Fleming, Department of Chemistry, San Jose State University

13.) **Sarah A. Gerhardt**

Photoisomerization of a benzopyrromethenone derivative in micelles and organic solvent

Sarah A. Gerhardt, Jin Z. Zhang, Raymond Bonnett, Fiona J. Swanson, UCSC

14.) **Theresa E. Hannon**

Evanescence Wave Cavity Ring-Down Spectroscopy in Liquids

Theresa E. Hannon, Fuping Li, Richard N. Zare, Dept. of Chemistry, Stanford University

15.) **Lynn F. Lee**

Intermolecular Coupling in Nanometric Domains of Light-Harvesting Dendrimers Studied by PL NSOM

Lynn F. Lee, Alex Adronov, Richard D. Schaller, Jean M.J. Fréchet, and Richard J. Saykally, Department of Chemistry, University of California, Berkeley, and Dept. of Chemistry, McMaster University

16.) **Megan A. Leich**

pH studies on Dodecyldimethylamine Oxide at the CCl₄/H₂O Interface

M. A. Leich, J. C. Marcum, G. L. Richmond, Department of Chemistry, University of Oregon

17.) **Sissi L. Li**

Photodissociation of Ar-NO Clusters Observed via Ion Imaging

Sissi Li, Tina Reak, Elisabeth Wade, Bradley Parsons, and David Chandler, Mills College and Sandia National Laboratories

18.) **Giovanni Meloni**

Vibrationally resolved anion photoelectron spectroscopy of the Al₃O₂ and Al₃O₃ species

G. Meloni, S. Sheehan, M. J. Ferguson, and D. M. Neumark, University of California, Berkeley, CA 94720

19.) **Astrid M. Mueller**

Ultrafast valence and core level photoelectron spectroscopy

Astrid M. Mueller, Jurgen Plenge, James B. Clark, Lora Nugent-Glandorf, Veronica M. Bierbaum and Stephen R. Leone, UC Berkeley

20.) **Bradley F. Parsons**

Dissociation Dynamics of Charge Transfer Cluster

Bradley F Parsons and David W. Chandler, Sandia National Laboratory/CA

21.) **Ivan R. Pletic**

Hydrogen Bonding Dynamics of MeOD clusters in CCl₄

Ivan R. Pletic, Kelly J. Gaffney, Michael D. Fayer, Stanford University, CA

22.) **T. Peter Rakitzis**

Spin Polarized Hydrogen Atoms from Molecular Photodissociation

T. Peter Rakitzis, Peter C. Samartzis, Rachel L. Toomes, Theofanis N. Kitsopoulos, Institute for Electronic Structure and LASER Foundation for Research and Technology-Hellas

23.) **Elizabeth A. Raymond**

Effect of Salts on Hydrogen Bonding at the Vapor/Water Interface, as Investigated by Vibrational Sum-Frequency Spectroscopy

E.A. Raymond, G.L. Richmond, Department of Physics, University of Oregon

24.) **Jeanne Robinson**

Aligning Amphiphilic Molecules in Ultrathin Films

P.A. Chiarelli, D.-G. Liu, H-L. Wang, J. L. Casson, G. Sanchez, J. M. Robinson, J. Majewski, K.-K. Loh, T. Lookman, M.S. Johal, Pomona College, LANL, and New College of South Florida

25.) **Eric T. Sevy**

Kinetics and dynamics of large energy transfers: From vibrations to rotations and translations

J.K. Thomson, K.E. Jackson, B.J. Hom, S.R. Goates, and E.T. Sevy, Brigham Young University

26.) **Carolyn J. Sharpe**

Multiple Disorder-to-Order Phase Transitions of Large-Ringed Cycloalkanones on Al₂O₃

(0001) C.J. Sharpe, A.S. Pontius, J.D. Taylor, K.A. Martin, and A.M. Nishimura, Point Loma Nazarene University and Westmont College

27.) **Darcy Tarrant**

One and Two Photon Spectroscopy of Anthracene Photodimers

Darcy H. Tarrant and Gary W. Scott, Department of Chemistry, University of California, Riverside

28.) **Joseph D. Taylor**

Interaction of Water and p-Dihalobenzenes on Al₂O₃(0001)

Joseph D. Taylor, Amanda S. Ponitus, Jerome A. Santos, R.T. Gingerich, D.L. Arnold, K.A. Martin* and A.M. Nishimura, Department of Chemistry, Westmont College, Santa Barbara, CA 93108, *Department of Chemistry, Pt. Loma Nazarene University, San Diego, CA 92106

29.) **Vivian Tyng**

Classical analysis of highly excited vibrational states: why and how

V. Tyng, M.E. Kellman, Department of Chemistry, University of Oregon

30.) **Ignacio A. Zuleta**

Hadamard Transform TOF-MS: A potential new tool for small peptide analysis

Ignacio A. Zuleta, Joel R. Kimmel, Oliver Trapp, Richard N. Zare, Department of Chemistry, Stanford University