Friday, January 16

3:30 PM  CHECK-IN AND ROOM ASSIGNMENTS

5:00 – 6:30  SOCIAL HOUR

POSTER PRESENTERS:  Please put your poster up during the welcome social.

6:30 – 7:45  DINNER

SESSION I  Presider:  Thomas Wytttenbach

7:45 - 8:10  “Supercharging and Electrothermal Supercharging for the Formation of Highly Charged and Elongated Protein Ions from Native, Aqueous Solutions and Applications to HDX Experiments”, Catherine C. Going and Evan R. Williams*, University of California, Berkeley, CA.

8:10 – 8:35  “Two-Step Energy Transfer from Phenylalanine to Tyrosine to Disulfide Bonds in Peptides”, Nathan Hendricks and Ryan R. Julian*, University of California, Riverside, CA.

8:35 – 9:00  Spontaneous Ion Formation from Rime Ice: The Potential for “Free” Ions from Cryovolcanoes and Their Implications for Astrobiology”, Joshua S. Wiley and J. L. Beauchamp*, California Institute of Technology, Pasadena, CA.

9:00 – 9:25  “Diphenylalanine Self Assembly: Novel Ion Mobility Methods Show the Essential Role of Water”, Thanh D. Do and Michael T. Bowers*, University of California, Santa Barbara, CA.
Friday, January 16

9:30 – 12:00 POSTER SESSION, DRINKS, AND DISCUSSION

POSTER PRESENTATIONS

1. “Detection of Peptide Epimers Using Different Dissociation Techniques”, **Yana Lyon**, Yuanqi Tao, and Ryan R. Julian*, *University of California, Riverside, CA*.


3. “Nuclear Magnetic Resonance Structure Elucidation of Peptide b_2 Ions”, Pengyuan, Liu, r. G. Cooks*, and **Hao Chen***, Ohio University, Athens, OH.

4. “Bio-polymer Fragmentation: Effect of Metal Ion versus Proton as Charge Carrier”, **Ekram Hossain** and Jianhua Ren*, *University of the Pacific, Stockton, CA*.


6. “Gas Phase Acidity and Proton Affinity of Select Vitamin Molecules”, **Dale Dong** and Jianhua Ren*, *University of the Pacific, Stockton, CA*.

7. “Gas Phase Properties of Large Caged Molecules”, **Omar Hamdy** and Ryan R. Julian*, *University of California, Riverside, CA*.

8. “Mechanism of α-Synuclein(71-82) Oligomerization Revealed by Ion Mobility Spectrometry and Molecular Dynamics”, **Qian Zhang**, Thanh D. Do, Xueyun Zheng, and Michael T. Bowers*, *University of California, Santa Barbara, CA*.


Friday, January 16

POSTER PRESENTATIONS (continued)


14. “Infrared Multiple Photon dissociation Spectroscopy of Protonated Amino Acids (Gly, Lys, His, and Arg) with 18-Crown-6 Ether: Effects of Binding Sites on Gas-Phase Conformation”, Christopher P. McNary, Y.-w. Nei, Philippe Maitre, M. T. Rodgers, and P. B. Armentrout*, University of Utah, Salt Lake City, UT.

15. “Dissociative Photoionization of Butanol Isomers”, Krisztina Voronova, Krisztian Torma, Kyle Covert, Chrissa Mozaffari, Andras Bodi, and Balint Sztaray*, University of the Pacific, Stockton, CA.


20. “Rapid Analysis of Glycospingolipid Chiral Isomers by Radical Directed Dissociation Mass Spectrometry”, Huong T. Pham and Ryan R. Julian*, University of California, Riverside, CA.


22. “Combining UV Laser Irradiation and IR Activated-Ion Electron Capture Dissociation to Enhance Disulfide Bond Cleavage for Protein Top-Down Mass Spectrometry”, Piriya Wonglongkathep, Huilin Li, Xing Zhang, Rachel R. Ogorzalek Loo, Ryan R. Julian, and Joseph A. Loo*, University of California, Los Angeles, CA.
Saturday, January 17

8:00 – 8:45 BREAKFAST

SESSION II  Presider: Matt Bush


9:10 – 9:35  “Gas-Phase Conformations and Energetics of Sodium Cationized 2′-Deoxyadenosine and Adenosine: IRMPD Action Spectroscopy and Theoretical Studies”, Yanlong Zhu, Stephen Strobehn, Chehchen He, Xun Bao, Jeuhan Gao, Jos Oomens, and M. T. Rodgers*, Wayne State University, Detroit, MI.

9:35 – 10:00  “Cross-Linking Electrochemical Mass Spectrometry for Probing Protein Three-Dimensional Structures”, Qiuling Zheng, Hao Zhang, Lingying Tong, Shiyong Wu, and Hao Chen*, Ohio University, Athens, OH.

10:00 – 10:25  “Efficient and Site Specific Formation of Peptide Crosslinkages in the Gas Phase”, Christopher J. Shaffer and Frantisek Turecek*, University of Washington, Seattle, WA.

10:25 – 10:45  BREAK


11:10 – 11:35  “Thermodynamics and Mechanisms of Protonated Asparaginyl-Glycine Decomposition”, Georgia Boles and Peter B. Armentrout*, University of Utah, Salt Lake City, UT.

11:35 – 12:00  “Collision Cross Sections for 20 Protonated Amino Acids: Fourier Transform Ion Cyclotron Resonance (CRAFTI) and Ion Mobility Results”, Anupriya, Chad A. Jones, and David V. Dearden*, Brigham Young University, Provo, UT.

12:00 – 2:30  LUNCH AND FREE TIME
Saturday, January 17

2:30 – 2:45  CONFERENCE PHOTO (Please meet in front of Conference center promptly at 2:30 pm so that we can start the afternoon session on time.)

SESSION III  Presider: Abraham Badu-Tawiah


3:10 – 3:35  “IRMPD Spectroscopy Investigations of Multiply Charged Zn and Cd Cation Complexes with Amino Acids”, Rebecca Coates, Chris McNary, and Peter B. Armentrout*, University of Utah, Salt Lake City, UT.


4:25 – 4:45  BREAK

4:45 – 5:10  “Cation to Anion Proton Transfer Reactions (CAPTR) of Protein Ions: Analytical Utility and Effects of Charge State on Ion Structure”, Kenneth J. Laszlo, Eleanor B. Munger, and Matthew F. Bush*, University of Washington, Seattle, WA.

5:10 – 5:35  “Characterizing Complexes: Surface-Induced Dissociation Mass Spectrometry Reveals Substructural Information of Protein Complexes”, Sophie Harvey, Royston Quintyn, Yang Song, Jing Yan, Aniruddha Sahasrabuddhe, and Vicki H. Wysocki*, Ohio State University, Columbus, OH.

5:35 – 6:00  “Approaches to Improve Native Top-Down MS Fragmentation Efficiency of Protein Complexes”, Huilin Li, Yue Wei Sheng, Joan S. Valentine, Joseph A. Loo*, University of California, Los Angeles, CA.

6:00 – 6:25  “Development of Single-Probe Mass Spectrometry and Its Applications to the Detection of Sulfated Post-Translationally Modified Proteins”, Rachel Vowcickefski, Ning Pan, and Zhibo Yang*, Oklahoma University, Normal, OK.

6:30 – 8:00  DINNER
Saturday, January 17

8:00 – 9:30   SATURDAY EVENING LECTURE

Presiding:  Mary T. Rodgers

“Adventures in Ion Chemistry: My First 44 Years”

Veronica M. Bierbaum
University of Colorado, Boulder

Support for the Saturday evening speaker and celebration generously provided by Bruker Daltonics and the Waters Corporation.

9:30 – 12:00   PARTY
Sunday, January 18

8:00 – 9:00 BREAKFAST

SESSION IV Presider: Zhibo Yang

8:45 – 9:10 “Understanding Conformational Effects on the Proton Affinity of Peptides Containing Lysine and Its Unnatural Homologs”, Patrick Batoon and Jianhua Ren*, University of the Pacific, Stockton, CA.

9:10 – 9:35 “Photodissociation of 3-Mercaptoindole Modified Cysteine in Peptides”, Christopher Nellessen and Ryan R. Julian*, University of California, Riverside, CA.

9:35 – 10:00 “Structural Characterization of β-Amyloid and Human Serum Albumin Complex Using SAXS and MS Experiments”, Tae Su Choi and Hugh I. Kim*, Pohang University of Science and Technology, Namgu, Pohang, Kyunbuk, South Korea.

10:00 – 10:25 “Relative Binding of Alkal Cations to Calixarenes and Other Macrocyclic Ligands Using Sustained Off-Resonance Irradiation Collision-Induced Dissociation”, Jiewen Shen and David V. Dearden*, Brigham Young University, Provo, UT.

10:25 – 10:45 BREAK

10:45 – 11:10 “Energy Resolved Rate Constants Acquired for the Unimolecular Dissociation of the Ni⁺ Propionaldehyde Cluster”, Adam C. Mansell, Zach Theis, and Darrin J. Bellert*, Baylor University, Waco, TX.

11:10 – 11:35 “Dissociation of a High Energy Ion, Methyl Hydroperoxide (CH₃OOH)”, Kyle Covert, Andras Bodi, Chrissa Mozaffari, and Balint Sztaray*, University of the Pacific, Stockton, CA.


12:00 CHECK OUT

12:00 – 1:00 LUNCH AND DEPART
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