

# Ion Mobility Mass Spectrometry

Program Chairs: David E Clemmer and Gary A Eiceman

*All sessions will be in St. John's - Halifax*

*Speakers – please arrive ½ hour before your session begins to load your presentation.*

## Friday, January 18

6:00 – 7:00 pm      **Registration**, *Outside of St. John's - Halifax*  
*Drinks available upstairs in Tomoka - Crystal*

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**7:00 – 10:00 pm**      **Conference Opening**, *St. John's - Halifax*

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7:00 – 8:00 pm      Opening lecture: **Michael Bowers**, *University of California, Santa Barbara*  
“Early Amyloid Oligomer Distributions: the Latest News”

8:00 – 10:00 pm      Reception, *Tomoka - Crystal*

## Saturday, January 19

8:30 am Setup posters, *Tomoka – Crystal*

8:00 – 8:30 am **Continental Breakfast**, *Tomoka - Crystal*

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### 8:30 – 9:30 am **Introductory Session**, *St. John's - Halifax*

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8:30 – 8:45 am Initial Remarks

8:45 – 9:30 am **Carol Robinson**, *University of Cambridge*  
“Ion mobility of Protein Assemblies: from Simple Rings to Complex Architectures”

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### 9:30 – 11:45 am **Complex Systems**, *St. John's - Halifax* Facundo Fernandez, *Session Chair* *Each talk includes 5 minutes of discussion*

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9:30 – 10:00 am **Dragan Isailovic**, *Indiana University*  
“Developing Ion Mobility-Mass Spectrometry for Analysis of Glycans”

**10:00 – 10:15 am Break**, *Tomoka - Crystal*

10:15 – 11:00 am **Richard Smith**, *Pacific Northwest National Laboratory*  
“Increasing the Sensitivity and Selectivity of Ion Mobility-MS Measurements for Proteomics”

11:00 – 11:45 am **Julie Leary**, *University of California, Davis*  
“IMS – MS/MS of Large Multi-Protein Complexes Isolated from Hela Cells”

12:00 – 1:30 pm **Group Lunch**: *North Deck*

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### 1:30 – 5:45 pm **Environmental, Chemical and Biological Warfare Monitoring**, *St. John's – Halifax* John A. Mclean, *Session Chair* *Each talk includes 5 minutes of discussion*

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1:30 – 2:00 pm **Facundo Fernandez**, *Georgia Tech*  
“Digital Atmospheric Pressure Resistive Glass Ion Mobility Spectrometry: Instrumentation, Multiplexing and Data Deconvolution”

2:00 – 2:30 pm **Joerg Baumbach**, *Institute for Analytical Sciences*  
“Ion Mobility Spectrometry for Metabolic Profiling of Lung Diseases”

2:30 – 3:00 pm **Herb Hill**, *Washington State University*  
“Separation Selectivity in Ion Mobility Spectrometry”

**3:00 – 3:15 pm Break**, *Tomoka - Crystal*

3:15 – 3:45 pm **Steve Harden**, *US Army*  
“Compact, Hand-Held Ion Mobility Spectrometers for Detection of Trace Levels of Toxic Chemicals in the Field and Atmospheric Pressure Ionization Mass Spectrometry of Associated Ion Chemistry”

3:45 – 5:45 pm **Workshop**

**8:00 – 10:00 pm Poster Session and Dessert**, *Tomoka - Crystal*

## Sunday, January 20

8:30 – 9:00 am **Continental Breakfast**, Tomoka - Crystal

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**9:00 am – 1:00 pm** **Novel Instrumentation Developments and Data Processing**,  
*St. John's – Halifax*  
Nicolas Polfer, *Session Chair*  
*Each talk includes 5 minutes of discussion*

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9:00 – 9:45 am **Sarah Trimpin**, *Indiana University*  
“Snapshots of Gas Phase Separated Polymeric Materials”

9:45 – 10:30 am **John McLean**, *Vanderbilt University*  
“Functionally-Selective IM-MS Shift Strategies for Proteomics and Glycomics”

**10:30 – 10:45 am** **Break**, Tomoka - Crystal

10:45 – 11:30 am **Erin Baker**, *Pacific Northwest National Laboratory*  
“Employing IMS-MS to Separate and Identify Biological Molecules in Complex Samples”

11:30 am – 1:00 pm **Manufacturer's Forum**

**Afternoon** **Free time**

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**7:00 – 10:00 pm** **Structure and Ion Chemistry**, *St. John's – Halifax*  
Barran Perdita, *Session Chair*  
*Each talk includes 5 minutes of discussion*

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7:00 – 7:45 pm **Colin Creaser**, *Loughborough University, Leicestershire, England*  
“Ion Mobility Mass Spectrometry of Small Molecules in Complex Systems”

7:45 – 8:30 pm **Peter Armentrout**, *University of Utah*  
“Ion Mobility Studies of Electronically Excited States of Atomic Transition Metal Cations”

8:30 – 9:15 pm **Nicolas Polfer**, *University of Florida*  
“On the Dynamics of Primary Structure Scrambling in Collision-induced Dissociation of Peptides”

**9:15 – 10:00 pm** **“Night Cap”**, Tomoka - Crystal

## Monday, January 21

8:30 – 9:00 am      **Continental Breakfast, Tomoka - Crystal**

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**9:00 am – 1:00 pm**    **Perspectives and New Directions in IMS, St. John's – Halifax**  
Gary A. Eiceman, *Session Chair*  
*Each talk includes 5 minutes of discussion*

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9:00 – 9:45 am      **David Russell, Texas A&M University**  
“Ion Mobility-Mass Spectrometry of Negatively Charged Peptide Ions  
and other Interesting Recent Developments”

9:45 – 10:30 am    **Erkin Nazarov, SIONEX Corporation, Bedford, MA**  
“Miniature Differential Mobility Spectrometer (DMS) as Effective Ions  
Pre-filter for Atmospheric-pressure Ionization Mass Spectrometry”

**10:30 -10:45 am**    **Break, Tomoka - Crystal**

10:45 – 11:30 am    **Albert Heck, Utrecht University**  
“Structure, Stability, and Shape of Viruses In Vacuo”

11:30 am – 12:15 pm    **Perdita Barran, University of Edinburgh**  
“Unpicking the Unfolding of Trp Cage”

12:15 – 1:15 pm      **David E. Clemmer and Gary A. Eiceman**  
*Discussion and closing*