



**AOMSC 2020
Macau, China**

The Art and Science of Mass Spectrometry, from
Fundamentals to Applications

● **Welcome to Bruker's eXceed Symposium in Association
with the AOMSC 2020 Conference**

We invite you to join the Bruker eXceed Symposium held at the University of Macau in association with the AOMSC 2020 conference. Leading scientists in the field of eXtreme Resolution (XR) mass spectrometry will present. The eXceed symposium topics will cover fundamentals of Magnetic Resonance Mass Spectrometry (MRMS), top-down approach for protein sequencing, method development for carbohydrates using MRMS and MALDI Imaging for plant metabolomics.

Reserve Your Seat! Now!

The event is open to any researchers using mass spectrometers. Feel free to forward this invitation to other users and interested colleagues.

Address: G021, E12 Building, University of Macau, Macau, China.

Date and time: 2:00 – 5:00 pm, Jan 4, 2020

Agenda:

13:30--14:00 Registration

14:00--14:40 Basics of FT-ICR MS.

***Evgeny Nikolaevich Nikolaev**, Skolkovo Institute of Science and Technology,
Moscow, Russia*

14:40--15:20 Top-Down Mass Spectrometry for Protein Sequencing and Elucidating Ligand Binding.

***Joseph A. Loo**, University of California, Los Angeles, USA*

15:20--15:40 Coffee break

15:40--16:20 The Development of Analytical Methods for Anionic Carbohydrates Using FTMS.

***Jonathan Amster**, University of Georgia, USA*

16:20--17:00 MALDI Imaging for Plant Metabolomics.

***Berin Boughton**, University of Melbourne, Australia*

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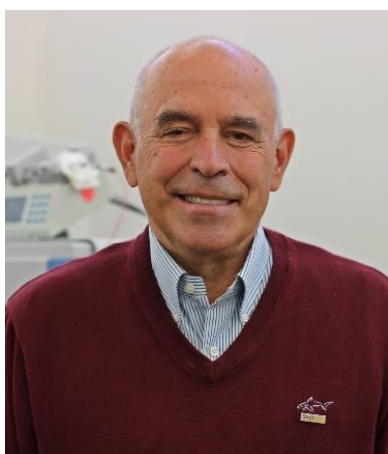


Registration



Bruker Mass
Spectrometry WeChat

● Speaker Introduction



Evgeny Nikolaevich Nikolaev, Corresponding member of Russian Academy of Sciences. Professor of chemical physics.

Graduated from Moscow Institute of Physics and Technology (PhysTech), Department of Molecular and Chemical Physics (specialization chemistry of fast processes) 1965-1971. Postgraduate courses at PhysTech 1971-1974. Ph.D. in chemical physics (1974): "Mass Spectrometric Investigation of ion cluster formation during fast atom bombardment of frozen polar molecular substances"; Dr.Sc. from the Institute of Energy Problems of Chemical Physics, Russian Academy of Sciences (1992): " FTICR and its application in precise mass measurement and kinetic mass spectrometry "; Full Professor 1994.

Head of the Laboratory of Ion and Molecular Physics (1987-till now). The Institute of Biochemical Physics Russian Academy of Sciences, Head of the Laboratory for Mass Spectrometry of Biomacromolecules (2004-till now). Skoltech, Full Professor (2014-till now) and the head of Mass Spectrometry laboratory.

Inventor of Dynamically harmonized FT-ICR cell (implemented in Bruker Daltonics solariX and scimaX as well as in 21T FT-ICR instrument in NHMF).

Inventor of the method of detection of FT-ICR signal with multiple electrodes (1986) (implemented in Bruker Daltonics solariX 2xR and in 21T FT-ICR instrument in PNNL).

Current research activities:

Supercomputer modeling of ion clouds behavior in accumulation and transport mass spectrometer devices. Further development of particle in cell algorithm and code for FT-ICR signals simulation. Development of analytical solution for the dynamically harmonized FT-ICR cell.

Investigation of microgravity influence on astronaut's body liquid proteome and metabolome by quantitative mass spectrometry. Development and application of on fly H/D exchange methods.

Classification analysis of organic carbon natural storages using ultrahigh accuracy mass spectrometry (Fourier Transform Ion Cyclotron Resonance Mass Spectrometry)

Development and characterization of dynamically harmonized penning traps for FT-ICR MS.

Member of advisory boards of the Journal of Mass-Spectrometry, 2000-2004, European Journal of Mass-Spectrometry, Rapid Communications in Mass-Spectrometry, Mass Spectrometry Reviv.

Organizer of the 8th European conference on FT-ICR mass spectrometry (Moscow 2008), organizer of the 2nd , 3rd and 4th Conference-school on mass spectrometry in Russia (Moscow 2005, 2007, 2010).

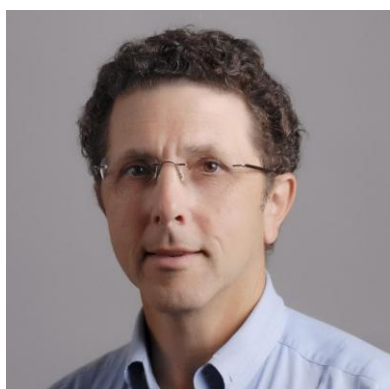
Organizer of the First Skolkovo Conference on Bio-imaging mass spectrometry (Moscow, Dec 2011).

Organizer of the 1st International Conference on Innovations in Mass Spectrometry Instrumentation (INNMS2013, St.Petersburg, Russia, July 2013) and the 2nd International Conference on Innovations in Mass Spectrometry Instrumentation (INNMS2016, Moscow Russia, Nov 2016).



**Joseph A. Loo, Professor,
University of California, Los Angeles, USA**

Joseph A. Loo is a Professor in the Department of Biological Chemistry, David Geffen School of Medicine, and in the Department of Chemistry & Biochemistry at the University of California, Los Angeles (UCLA). He is also a member of UCLA/DOE Institute for Genomics and Proteomics and the UCLA Molecular Biology Institute. His research interests include analytical chemistry, the mass spectrometry characterization of peptides and proteins and post-translational modifications, and their application for proteomics and disease biomarkers. He is the author of over 300 scientific publications. He is on the Editorial Boards of several scientific journals, and currently he is the Editor-in-Chief for the *Journal of the American Society for Mass Spectrometry*. He has held leadership and advisory positions with scientific organizations, including membership on the Board of Directors for the American Society for Mass Spectrometry (ASMS) and the US Human Proteome Organization (US HUPO). Before he joined UCLA in 2001, he was an Associate Research Fellow and Group Leader of the Biological Mass Spectrometry and Proteomics Teams at Parke-Davis Pharmaceutical (currently Pfizer Global Research), Ann Arbor, MI. Dr. Loo received his Ph.D. in analytical chemistry from Cornell University with Professor Fred W. McLafferty, where he worked on the development of high resolution mass spectrometry for bioanalytical applications. He carried out research as a post-doctoral fellow, and later as a Senior Scientist, at Pacific Northwest National Laboratory (Richland, WA) with Dr. Richard Smith on the development of electrospray ionization mass spectrometry and capillary electrophoresis for protein characterization.



**Jonathan Amster, Professor,
University of Georgia, USA**

Jon Amster is a Distinguished Research Professor in the Department of Chemistry at the University of Georgia. He earned his B.A. in Chemistry in 1977 at Cornell University. He earned his Ph.D. in 1986 under the direction of Fred McLafferty at Cornell University. He was a postdoc with Bob McIver at the University of California at Irvine in 1987-88. He joined the faculty of the University of Georgia in 1988, and recently completed a ten-year term as Head of Chemistry (2009-2019). He is a Fellow of the AAAS. He has authored/coauthored more than 145 research articles and book chapters on the subject of mass spectrometry. His present research interests include developments in Fourier transform mass spectrometry, biomacromolecule analysis, ion mobility spectrometry, and gas-phase structural biology. His laboratory is presently engaged in the development of a fully automated system for sequencing glycosaminoglycans using CE-MS/MS and novel methods of ion activation.



**Berin Boughton, Senior Research Fellow,
University of Melbourne, Australia**

Dr Berin Boughton obtained his BSc (Hons)(Chemistry and Pharmacology) and PhD (Chemistry) from the University of Melbourne. Since 2013 he has led the implementation and development of MALDI Magnetic Resonance Mass Spectrometry Imaging at the University of Melbourne.

His research interests are focused upon Bio-Analytical Chemistry in the fields of Metabolomics and Spatial Metabolomics, including the mapping of plant secondary metabolites and defense molecules involved in biotic and abiotic stresses, eco-metabolomics, host-parasite interactions, neurodegenerative disease, design and synthesis of new MALDI matrices and application of ultra-high mass resolution magnetic resonance mass spectrometry.