

AWARD FOR A DISTINGUISHED CONTRIBUTION IN MASS SPECTROMETRY

Award Lecture: 4:45 pm, Monday, Wells Fargo Theatre

2008 Recipient: Alexander Makarov



The 2008 award is presented to Alexander Makarov for his leading role in the many technological advances necessary to create a high performance orbital electrostatic trap, for which he coined the term "orbitrap." In Dr. Makarov's novel implementation of a concept first suggested by Kingdon in 1923, ions combine rotation around an axial electrode with harmonic oscillations along the axis of rotation at a frequency characteristic of their m/z value. A mass spectrum is obtained by Fourier transform of the time domain signal of the image current from coherently oscillating ions. Dr. Makarov provided theoretical models for analyzer geometry and image current detection, and developed the mechanical and ion optical systems to realize the theoretical capability of the instrument for high mass accuracy, mass resolving power, sensitivity and dynamic range. Dr. Makarov is recognized for having led the entire orbitrap development over an extended period, from concept and proof-of-principle through product development, production, and entry into mainstream applications worldwide.

THE BIEMANN MEDAL

Award Lecture: 4:45 pm, Tuesday, Wells Fargo Theatre

2008 Recipient: Julia Laskin



The 2008 Biemann Medal is presented to Julia Laskin for her contributions to the fundamental understanding of excitation and dissociation processes involving complex molecular ions. Dr. Laskin's work combines ingenious experimental design, rigorous data interpretation, and advanced theoretical modeling to enable a clearer understanding of surface induced dissociation (SID) of complex molecules. She provided for the first time a quantitative description of energy transfer processes of large biomolecules following collisions with well-characterized surfaces. These models of activation and dissociation for SID also enable precise experimental control of ion activation, which is essential for applications such as peptide sequencing and biomarker identification. Dr. Laskin's discovery that ions can rapidly dissociate or "shatter" during or immediately after surface impact has significant implications for the mass spectrometry of large molecules. Her work includes studies of low energy dissociation processes, activation of protein ions, entropic effects of peptide dissociation, and soft landing of peptides on self-assembled monolayers.

CALL FOR NOMINATIONS FOR 2009

Award for a Distinguished Contribution in Mass Spectrometry. The person nominated should have made a contribution that has had a significant impact on the fundamental understanding and/or practice of mass spectrometry. Eligibility is not restricted to members of ASMS. The award is announced at the ASMS Annual Conference with the presentation of a \$10,000 cash award and a recognition plaque.

Name of person nominated _____

Affiliation _____

Address _____

Nominee's email: _____

Your name & email: _____

Supporting letters (one page) will be provided by: _____

The Biemann Medal recognizes a significant achievement in basic or applied mass spectrometry made by an individual early in his or her career. Nominees are expected to be within 15 years of receipt of the Ph.D.. The award is presented at the ASMS Annual Conference with the presentation of the Biemann Medal and a \$5,000 cash award.

This individual is nominated for:

- Distinguished Contribution in Mass Spectrometry
 Biemann Medal Year of Ph.D. _____

Please enclose the following:

1. **Short description of the achievement** (1-2 paragraphs);
2. **A list of the nominee's publications** pertaining to this award and;
3. **A copy of no more than two of the nominee's publications** relevant to the subject.

Send completed nomination form and enclosures for receipt by November 30 to:

ASMS Awards
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