

**Cover image caption:** "If this shark came equipped with a UV laser on its head, it wouldn't need teeth to cleave carbon-sulfur bonds," see page 1760.

**ASMS NEWS & VIEWS**

*i-iv*

ASMS News & Views  
Edited by Gavin Reid

**FOCUS: APPLICATION OF PHOTONS AND RADICALS FOR MS: EDITORIAL**

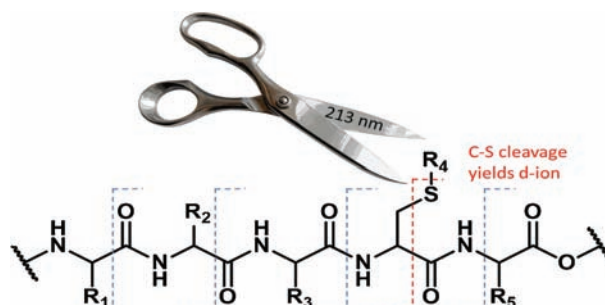
**1757 – 1759**

Focus on Application of Photons and Radicals for Mass Spectrometry, Honoring Dr. Ryan Julian, Recipient of the 2017 ASMS Biemann Medal  
*J.A. Loo*

**FOCUS: APPLICATION OF PHOTONS AND RADICALS FOR MS: RESEARCH ARTICLES**

**1760 – 1767**

Directed-Backbone Dissociation Following Bond-Specific Carbon-Sulfur UVPD at 213 nm  
*L.E. Talbert and R.R. Julian*



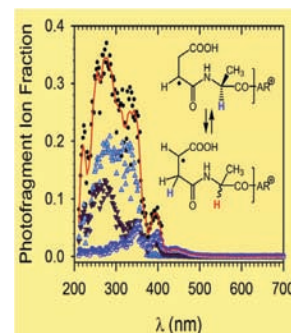
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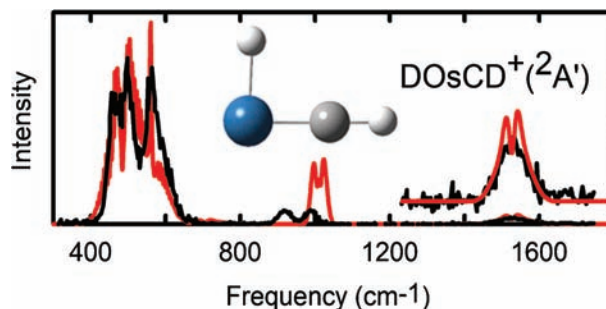
## 1768–1780

Spontaneous Isomerization of Peptide Cation Radicals Following Electron Transfer Dissociation Revealed by UV-Vis Photodissociation Action Spectroscopy  
*N. Imaoka, C. Houferak, M.P. Murphy, H.T.H. Nguyen, A. Dang, and F. Tureček*



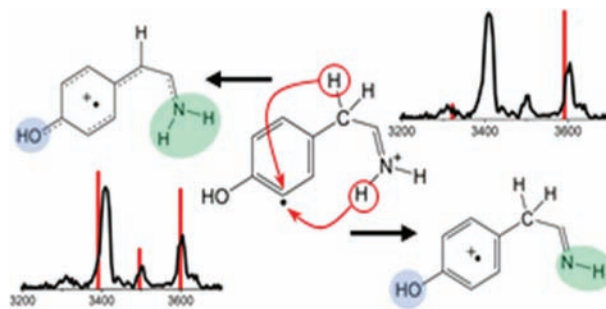
## 1781–1790

Spectroscopic Identification of the Carbyne Hydride Structure of the Dehydrogenation Product of Methane Activation by Osmium Cations  
*P.B. Armentrout, S.E.J. Kuipers, O.V. Lushchikova, R.L. Hightower, G.C. Boles, and J.M. Bakker*



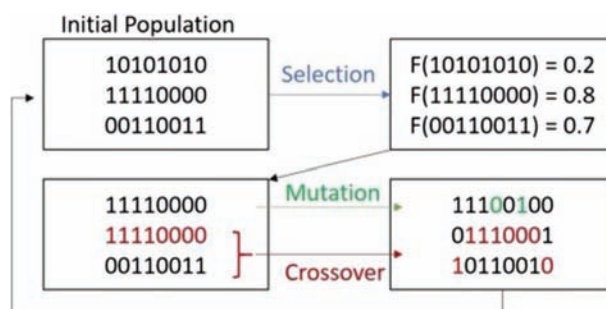
## 1791–1801

Radical Rearrangement Chemistry in Ultraviolet Photodissociation of Iodotyrosine Systems: Insights from Metastable Dissociation, Infrared Ion Spectroscopy, And Reaction Pathway Calculations  
*K. Ranka, N. Zhao, L. Yu, J.F. Stanton, and N.C. Polfer*



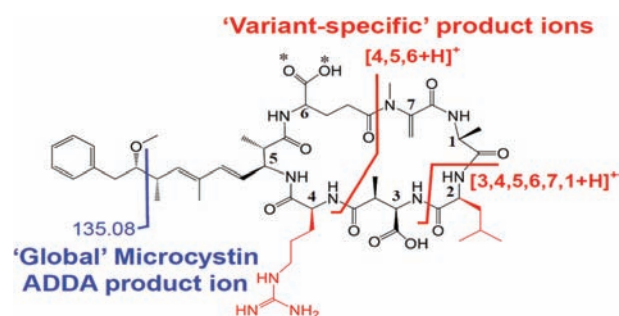
## 1802–1811

An Automated, High-Throughput Method for Interpreting the Tandem Mass Spectra of Glycosaminoglycans  
*J. Duan and I. Jonathan Amster*



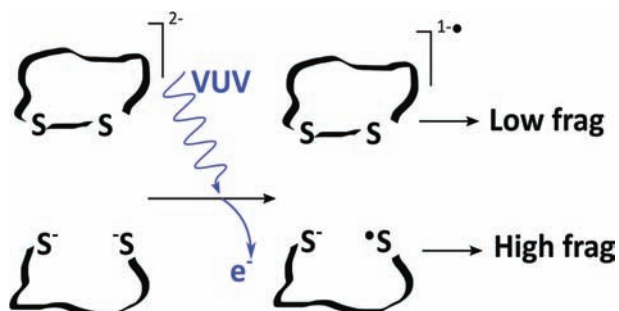
## 1812–1825

Structural Characterization and Absolute Quantification of Microcystin Peptides Using Collision-Induced and Ultraviolet Photo-Dissociation Tandem Mass Spectrometry  
*T.J. Attard, M.D. Carter, M. Fang, R.C. Johnson, and G.E. Reid*



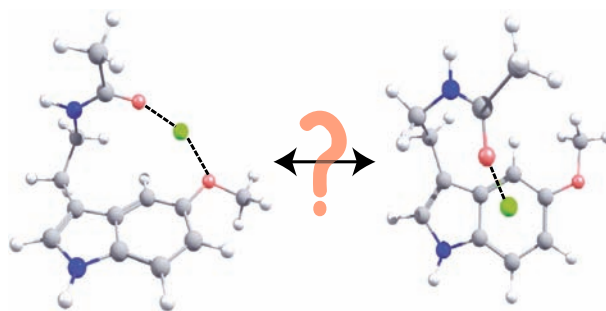
## 1826–1834

Radical Anions of Oxidized vs. Reduced Oxytocin: Influence of Disulfide Bridges on CID and Vacuum UV Photo-Fragmentation  
*L. MacAleese, M. Girod, L. Nahon, A. Giuliani, R. Antoine, and P. Dugourd*



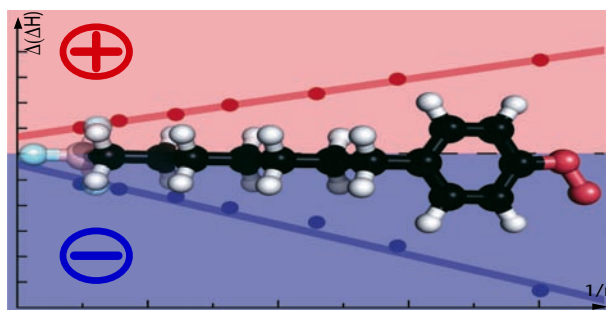
## 1835–1847

Structural Investigation of the Hormone Melatonin and Its Alkali and Alkaline Earth Metal Complexes in the Gas Phase  
*S. Chakrabarty, M.J. DiTucci, G. Berden, J. Oomens, and E.R. Williams*



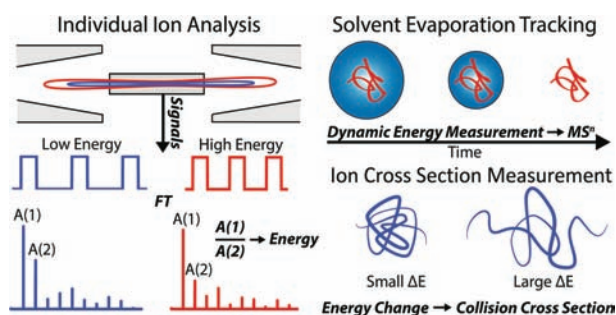
## 1848–1860

Comparing Positively and Negatively Charged Distonic Radical Ions in Phenylperoxyl Forming Reactions  
*P.E. Williams, D.L. Marshall, B.L.J. Poad, V.R. Narreddula, B.B. Kirk, A.J. Trevitt, and S.J. Blanksby*



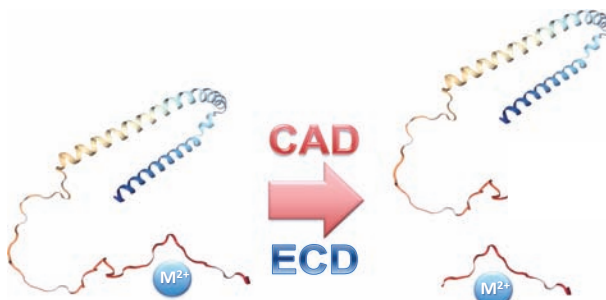
## 1861–1869

Determining Energies and Cross Sections of Individual Ions Using Higher-Order Harmonics in Fourier Transform Charge Detection Mass Spectrometry (FT-CDMS)  
*C.C. Harper, A.G. Elliott, H.-W. Lin, and E.R. Williams*



## 1870–1880

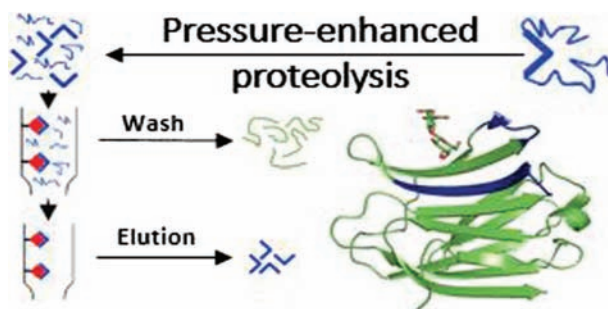
Native Top-Down Mass Spectrometry and Ion Mobility MS for Characterizing the Cobalt and Manganese Metal Binding of  $\alpha$ -Synuclein Protein  
*P. Wongkongkathep, J.Y. Han, T.S. Choi, S. Yin, H.I. Kim, and J.A. Loo*



## RESEARCH ARTICLES

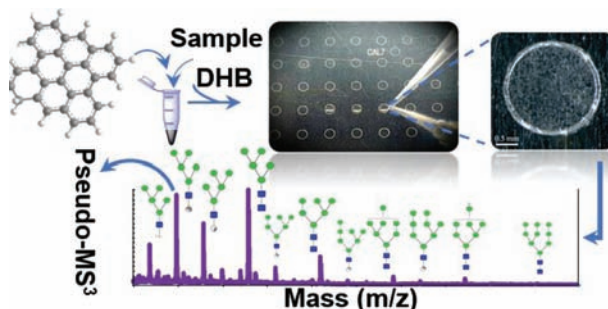
1881 – 1891

Epitope Ligand Binding Sites of Blood Group Oligosaccharides in Lectins Revealed by Pressure-Assisted Proteolytic Excision Affinity Mass Spectrometry  
 Y. Baschung, L. Lupu, A. Moise, M. Glocker, S. Rawer, A. Lazarev, and M. Przybylski



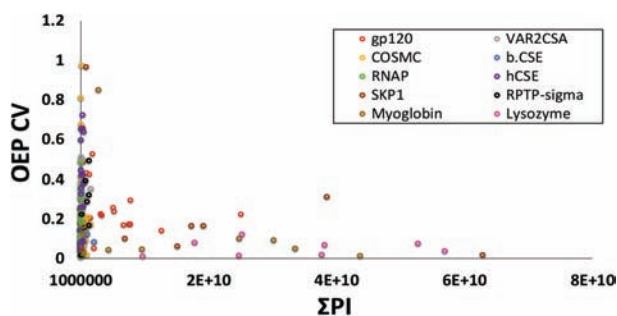
1892 – 1900

Carbon Nanoparticles and Graphene Nanosheets as MALDI Matrices in Glycomics: a New Approach to Improve Glycan Profiling in Biological Samples  
 A. Banazadeh, W. Peng, L. Veillon, and Y. Mechref



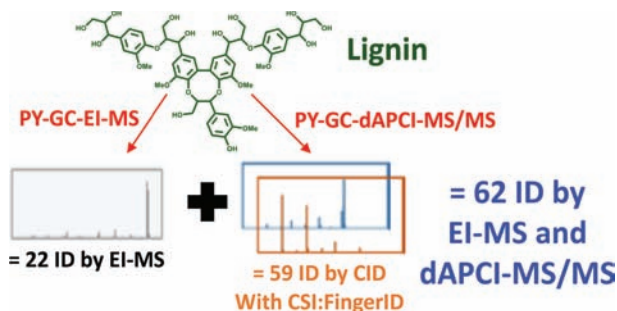
1901 – 1907

Variation in FPOP Measurements Is Primarily Caused by Poor Peptide Signal Intensity  
 N. Abolhasani Khaje, C.K. Mobley, S.K. Misra, L. Miller, Z. Li, E. Nudler, and J.S. Sharp



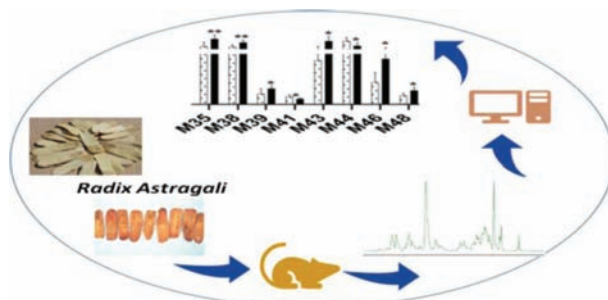
1908 – 1918

Gas Chromatography-Tandem Mass Spectrometry of Lignin Pyrolyzates with Dopant-Assisted Atmospheric Pressure Chemical Ionization and Molecular Structure Search with CSI:FingerID  
 E.A. Larson, C.P. Hutchinson, and Y.J. Lee



1919 – 1935

Screening and Identification of the Metabolites of Water Extracts of Raw and Honey-Processed *Astragalus* in Rat Urine Based on UHPLC/ESI-Q-TOF-MS and Multivariate Statistical Analysis  
 J. Huang, H. Chen, C. Li, W. Liu, W. Ma, and W. Rui

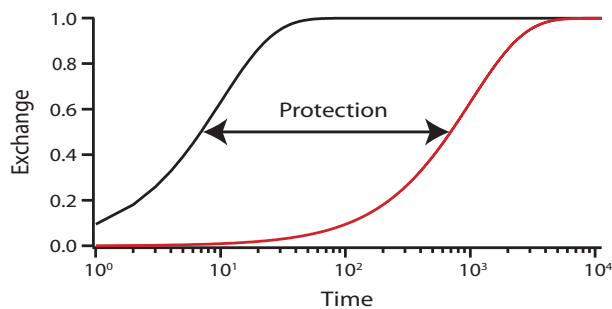


## APPLICATION NOTE

## 1936 – 1939

Reference Parameters for Protein Hydrogen Exchange Rates

*D. Nguyen, L. Mayne, M.C. Phillips, and S. Walter Englander*



## CORRECTION

## 1940

Correction to: Fungal Secretome Analysis Via PepSAVI-MS: Identification of the Bioactive Peptide KP4 from *Ustilago maydis*  
*C.L. Kirkpatrick, N.C. Parsley, T.E. Bartges, M.E. Cooke, W.S. Evans, L.R. Heil, T.J. Smith, and L.M. Hicks*