

Journal of The American Society for
MASS SPECTROMETRY



November 2015 / Volume 26 / Number 11 **Table of Contents**

ASMS NEWS & VIEWS

i-iii

ASMS News & Views
Edited by Gavin Reid

FOCUS: 20 YEAR ANNIVERSARY OF SEQUEST: EDITORIAL

1797 – 1798

Focus on the 20-Year Anniversary of SEQUEST
J.S. Brodbelt and D.H. Russell

FOCUS: 20 YEAR ANNIVERSARY OF SEQUEST: ACCOUNT & PERSPECTIVE

1799 – 1803

The H-Index of 'An Approach to Correlate Tandem Mass Spectral Data of Peptides with Amino Acid Sequences in a Protein Database'
M.P. Washburn

expression
proteomics
phosphorylation
kinase data
tandem mass
cancer yeast
modifications cell complex
human membrane
protein quantitative
peptide
identification
spectrometry

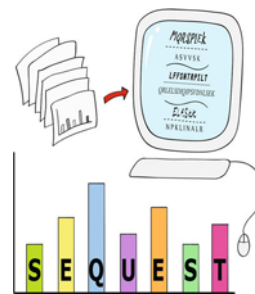
Instructions for authors for *The Journal of The American Society for Mass Spectrometry* can be found at www.springer.com/13361

Abstracted/Indexed in: *Academic OneFile, Academic Search, Chimica, CSA/Proquest, Current Abstracts, Current Contents/Physical, Chemical and Earth Sciences, EI-Compindex, EMBASE, Food Science and Technology Abstracts, Google Scholar, IBIDS, INIS Atomindex, Inspec, OCLC, PubMed/Medline, Science Citation Index, Science Citation Index Expanded (SciSearch), SCOPUS, and Summon by Serial Solutions.*

Journal of the American Society for Mass Spectrometry (ISSN 1044-0305) is published monthly by Springer Science & Business Media, 233 Spring St, 6th Fl., New York, NY. Periodicals postage is pending at New York, NY and additional mailing offices. POSTMASTER: Send address changes to *Journal of The American Society for Mass Spectrometry*, Springer, 233 Spring Street, New York, NY 10013, USA.

1804 – 1813

Pivotal Role of Computers and Software in Mass Spectrometry – SEQUEST and 20 Years of Tandem MS Database Searching
J.R. Yates III



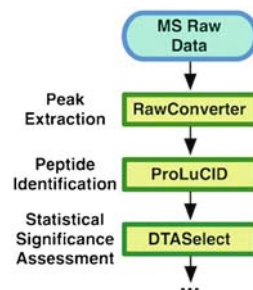
1814 – 1819

The SEQUEST Family Tree
D.L. Tabb



1820 – 1826

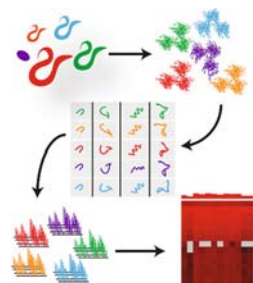
From Raw Data to Biological Discoveries: A Computational Analysis Pipeline for Mass Spectrometry-Based Proteomics
M. Lavallée-Adam, S.K.R. Park, S. Martínez-Bartolomé, L. He, and J.R. Yates III



FOCUS: 20 YEAR ANNIVERSARY OF SEQUEST: RESEARCH ARTICLES

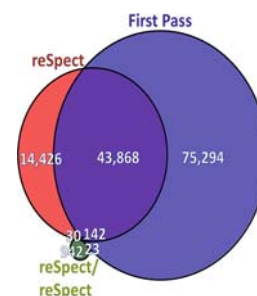
1827 – 1836

Visualization and Dissemination of Multidimensional Proteomics Data Comparing Protein Abundance During *Caenorhabditis elegans* Development
M. Riffle, G.E. Merrihew, D. Jaschob, V. Sharma, T.N. Davis, W.S. Noble, and M.J. MacCoss



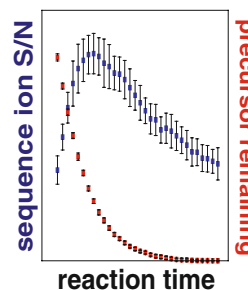
1837 – 1847

reSpect: Software for Identification of High and Low Abundance Ion Species in Chimeric Tandem Mass Spectra
D. Shteynberg, L. Mendoza, M.R. Hoopmann, Z. Sun, F. Schmidt, E.W. Deutsch, and R.L. Moritz



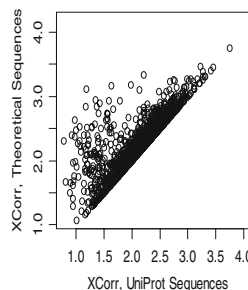
1848 – 1857

A Calibration Routine for Efficient ETD in Large-Scale Proteomics
C.M. Rose, M.J.P. Rush, N.M. Riley, A.E. Merrill, N.W. Kwiecien, D.D. Holden, C. Mullen, M.S. Westphall, and J.J. Coon



1858 – 1864

Using SEQUEST with Theoretically Complete Sequence Databases
R.G. Sadygov



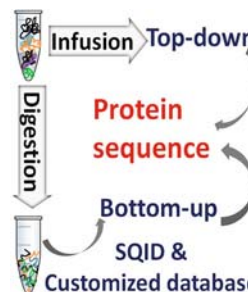
1865 – 1874

A Deeper Look into Comet—Implementation and Features
J.K. Eng, M.R. Hoopmann, T.A. Jahan, J.D. Egerton, W.S. Noble, and M.J. MacCoss



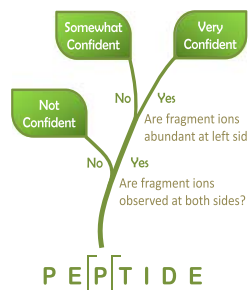
1875 – 1884

Top-Down-Assisted Bottom-Up Method for Homologous Protein Sequencing: Hemoglobin from 33 Bird Species
Y. Song, Ü.A. Laskay, I.-M.E. Vilcins, A.G. Barbour, and V.H. Wysocki



1885 – 1894

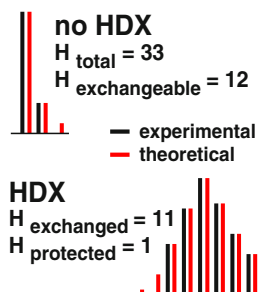
Novor: Real-Time Peptide de Novo Sequencing Software
B. Ma



FOCUS: 20 YEAR ANNIVERSARY OF SEQUEST: APPLICATION NOTE

1895 – 1898

HDX Match Software for the Data Analysis of Top-Down ECD-FTMS Hydrogen/ Deuterium Exchange Experiments
E.V. Petrotchenko and C.H. Borchers

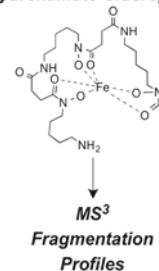


SHORT COMMUNICATION

1899 – 1902

Accurate Mass MS/MS/MS Analysis of Siderophores Ferrioxamine B and E1 by Collision-Induced Dissociation Electrospray Mass Spectrometry
A.M. Sidebottom, J.A. Karty, and E.E. Carlson

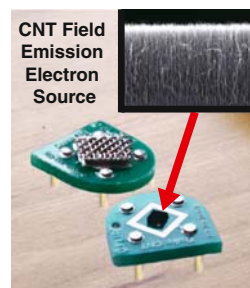
Trihydroxamate Siderophores



RESEARCH ARTICLES

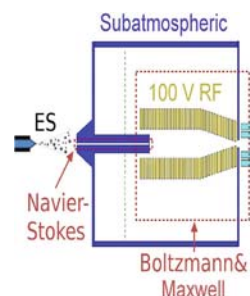
1903 – 1910

Chemical Ionization Mass Spectrometry Using Carbon Nanotube Field Emission Electron Sources
E.J. Radauscher, A.D. Keil, M. Wells, J.J. Amsden, J.R. Piascik, C.B. Parker, B.R. Stoner, and J.T. Glass



1911 – 1922

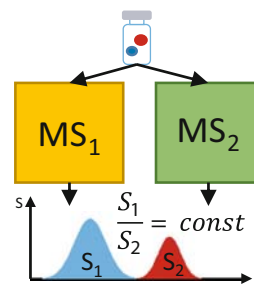
Numerical Analysis of Ion-Funnel Transmission Efficiency in an API-MS System with a Continuum/Microscopic Approach
S. Gimelshein, T. Lilly, and E. Moskovets



1923 – 1930

Transferability of the Electrospray Ionization Efficiency Scale between Different Instruments

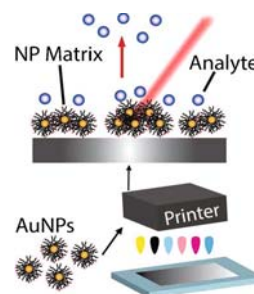
J. Liigand, A. Kruve, P. Liigand, A. Laaniste, M. Girod, R. Antoine, and I. Leito



1931 – 1937

Inkjet-Printed Gold Nanoparticle Surfaces for the Detection of Low Molecular Weight Biomolecules by Laser Desorption/Ionization Mass Spectrometry

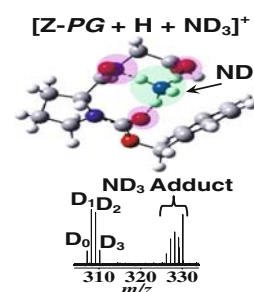
A.L.M. Marsico, B. Creran, B. Duncan, S.G. Elci, Y. Jiang, T.B. Onasch, J. Wormhoudt, V.M. Rotello, and R.W. Vachet



1938 – 1949

Competing Noncovalent Host-guest Interactions and H/D Exchange: Reactions of Benzylloxycarbonyl-Proline Glycine Dipeptide Variants with ND₃

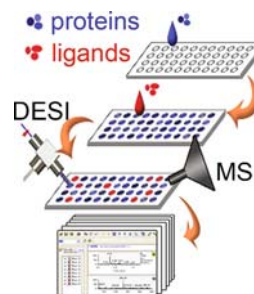
M. Miladi, A.D. Olaitan, B. Zekavat, and T. Solouki



1950 – 1958

Screening of the Binding of Small Molecules to Proteins by Desorption Electrospray Ionization Mass Spectrometry Combined with Protein Microarray

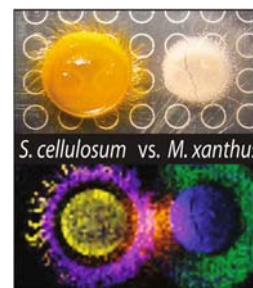
C. Yao, T. Wang, B. Zhang, D. He, N. Na, and J. Ouyang



APPLICATION NOTES

1959 – 1962

Homogeneous Matrix Deposition on Dried Agar for MALDI Imaging
Mass Spectrometry of Microbial Cultures
T. Hoffmann and P.C. Dorrestein



1963 – 1966

Two-Dimensional Graphene as a Matrix for MALDI Imaging
Mass Spectrometry
*W.L. Friesen, B.J. Schultz, J.F. Destino, T.E.G. Alivio, J.R. Steet,
S. Banerjee, and T.D. Wood*

