Analytical Chemistry **2010** *82* (1)

1. **No Ghostwriters in the Sky**

   Royce Murray

   Analytical Chemistry **2010** *82* (1), 1-1
2. **Nanowiring for neurons**

   Rajendrani Mukhopadhyay

   Analytical Chemistry **2010** *82* (1), 2-2
3. **Diagnostics for the Developing World: Microfluidic Paper-Based Analytical Devices**

   Andres W. Martinez, Scott T. Phillips, George M. Whitesides, Emanuel Carrilho

   Analytical Chemistry **2010** *82* (1), 3-10
4. **Matrix-Assisted Laser Desorption/Ionization Mass Spectrometry Method for Selectively Producing Either Singly or Multiply Charged Molecular Ions**

   Sarah Trimpin, Ellen D. Inutan, Thushani N. Herath, Charles N. McEwen

   Analytical Chemistry **2010** *82* (1), 11-15
5. **Surface-Enhanced Transmission Mode Desorption Electrospray Ionization: Increasing the Specificity of Ambient Ionization Mass Spectrometric Analyses**

   Joseph E. Chipuk, Michael H. Gelb, Jennifer S. Brodbelt

   Analytical Chemistry **2010** *82* (1), 16-18
6. **Scanning Mass Spectrometry Probe: A Scanning Probe Electrospray Ion Source for Imaging Mass Spectrometry of Submerged Interfaces and Transient Events in Solution**

   Peter A. Kottke, F. Levent Degertekin, Andrei G. Fedorov

   Analytical Chemistry **2010** *82* (1), 19-22
7. **Site-Preferential Dissociation of Peptides with Active Chemical Modification for Improving Fragment Ion Detection**

   Pamela Ann C. Diego, Bekim Bajrami, Hui Jiang, Yu Shi, Jose A. Gascon, Xudong Yao

   Analytical Chemistry **2010** *82* (1), 23-27
8. **Electron Transfer Dissociation Facilitates Sequencing of Adenosine Diphosphate-Ribosylated Peptides**

   Barry M. Zee, Benjamin A. Garcia

   Analytical Chemistry **2010** *82* (1), 28-31
9. **Differential Ion Mobility Separations of Peptides with Resolving Power Exceeding 50**

Alexandre A. Shvartsburg, Keqi Tang, Richard D. Smith

Analytical Chemistry **2010** *82* (1), 32-35

10. **Microfluidic CD4+ T-Cell Counting Device Using Chemiluminescence-Based Detection**

    Zuankai Wang, Sau Yin Chin, Curtis D. Chin, John Sarik, Maritza Harper, Jessica Justman, Samuel K. Sia

    Analytical Chemistry **2010** *82* (1), 36-40

11. **Utilizing the Third Order Advantage with Isotope Dilution Mass Spectrometry**

    Elizabeth M. Humston, Jamin C. Hoggard, Robert E. Synovec

    Analytical Chemistry **2010** *82* (1), 41-43

12. **Concentration and in Situ Detection of Peptides Using Liquid Matrix-Assisted Laser Desorption Ionization Matrixes**

    Siao-Huei Yang, P. Muralidhar Reddy, Yen-Peng Ho

    Analytical Chemistry **2010** *82* (1), 44-48

13. **Monolithic Silicon Chip for Immunofluorescence Detection on Single Magnetic Beads**

    Emile P. Dupont, Estelle Labonne, Caroline Vandevyver, Ulrike Lehmann, Edoardo Charbon, Martin A. M. Gijs

    Analytical Chemistry **2010** *82* (1), 49-52

14. **Reversed-Phase-Reversed-Phase Liquid Chromatography Approach with High Orthogonality for Multidimensional Separation of Phosphopeptides**

    Chunxia Song, Mingliang Ye, Guanghui Han, Xinning Jiang, Fangjun Wang, Zhiyuan Yu, Rui Chen, Hanfa Zou

    Analytical Chemistry **2010** *82* (1), 53-56

15. **Molecular Depth Profiling with Cluster Secondary Ion Mass Spectrometry and Wedges**

    Dan Mao, Andreas Wucher, Nicholas Winograd

    Analytical Chemistry **2010** *82* (1), 57-60

16. **Use of Information Visualization Methods Eliminating Cross Talk in Multiple Sensing Units Investigated for a Light-Addressable Potentiometric Sensor**

    Jos é R. Siqueira Jr., Rafael M. Maki, Fernando V. Paulovich, Carl F. Werner, Arshak Poghossian, Maria C. F. de Oliveira, Valtencir Zucolotto, Osvaldo N. Oliveira Jr., Michael J. Sch ning

    Analytical Chemistry **2010** *82* (1), 61-65

17. **Dual-Channel Sensing of Volatile Organic Compounds with Semiconducting Nanoparticles**

    Da Liu, Mingyang Liu, Guohong Liu, Sichun Zhang, Yayan Wu, Xinrong Zhang

Analytical Chemistry **2010** *82* (1), 66-68

18. **Quantitative, Label-Free Detection of Five Protein Biomarkers Using Multiplexed Arrays of Silicon Photonic Microring Resonators**

    Adam L. Washburn, Matthew S. Luchansky, Adrienne L. Bowman, Ryan C. Bailey

    Analytical Chemistry **2010** *82* (1), 69-72

19. **Exploiting Binding-Induced Changes in Probe Flexibility for the Optimization of Electrochemical Biosensors**

    Ryan J. White, Kevin W. Plaxco

    Analytical Chemistry **2010** *82* (1), 73-76

20. **Kinetic Study of Rapid Transfer of Tetraethylammonium at the 1,2-Dichloroethane/Water Interface by Nanopipet Voltammetry of Common Ions**

    Yixian Wang, Jeyavel Velmurugan, Michael V. Mirkin, Patrick J. Rodgers, Jiyeon Kim, Shigeru Amemiya

    Analytical Chemistry **2010** *82* (1), 77-83

21. **Nanopipet Voltammetry of Common Ions across the Liquid−Liquid Interface. Theory and Limitations in Kinetic Analysis of Nanoelectrode Voltammograms**

    Patrick J. Rodgers, Shigeru Amemiya, Yixian Wang, Michael V. Mirkin

    Analytical Chemistry **2010** *82* (1), 84-90

22. **Compositional Analysis of Metal Chelating Materials Using Near-Field Photothermal Fourier Transform Infrared Microspectroscopy**

    Jonathan G. Moffat, Andrew G. Mayes, Peter S. Belton, Duncan Q. M. Craig, Mike Reading

    Analytical Chemistry **2010** *82* (1), 91-97

23. **Organic Depth Profiling of a Nanostructured Delta Layer Reference Material Using Large Argon Cluster Ions**

    J. L. S. Lee, S. Ninomiya, J. Matsuo, I. S. Gilmore, M. P. Seah, A. G. Shard

    Analytical Chemistry **2010** *82* (1), 98-105

24. **Information Extraction from a Complex Multicomponent System by Target Factor Analysis**

    Limin Shao, Peter R. Griffiths

    Analytical Chemistry **2010** *82* (1), 106-114

25. **Automated Platform for Fractionation of Human Plasma Glycoproteome in Clinical Proteomics**

    Majlinda Kullolli, William S. Hancock, Marina Hincapie

Analytical Chemistry **2010** *82* (1), 115-120

26. **Detection of Carbohydrates and Steroids by Cation-Enhanced Nanostructure-Initiator Mass Spectrometry (NIMS) for Biofluid Analysis and Tissue Imaging**

    Gary J. Patti, Hin-Koon Woo, Oscar Yanes, Leah Shriver, Diane Thomas, Wilasinee Uritboonthai, Junefredo V. Apon, Rick Steenwyk, Marianne Manchester, Gary Siuzdak

    Analytical Chemistry **2010** *82* (1), 121-128

27. **Combined Contactless Conductometric, Photometric, and Fluorimetric Single Point Detector for Capillary Separation Methods**

    Mark éta Ryvolov á, Jan Preisler, Franti š ek Foret, Peter C. Hauser, Pavel Kr ásensk ý, Brett Paull, Mirek Macka

    Analytical Chemistry **2010** *82* (1), 129-135

28. **Quantitative Multiplex Detection of Pathogen Biomarkers on Multichannel Waveguides**

    Harshini Mukundan, Hongzhi Xie, Dominique Price, Jessica Z. Kubicek-Sutherland, W. Kevin Grace, Aaron S. Anderson, Jennifer S. Martinez, Nile Hartman, Basil I. Swanson

    Analytical Chemistry **2010** *82* (1), 136-144

29. **Discrimination and Phylogenomic Classification of Bacillus anthracis-cereus-thuringiensis Strains Based on LC-MS/MS Analysis of Whole Cell Protein Digests**

    Jacek P. Dworzanski, Danielle N. Dickinson, Samir V. Deshpande, A. Peter Snyder, Brian A. Eckenrode

    Analytical Chemistry **2010** *82* (1), 145-155

30. **Metabolic Profiling of Ultrasmall Sample Volumes with GC/MS: From Microliter to Nanoliter Samples**

    Maud M. Koek, Floor Bakels, Willem Engel, Arn van den Maagdenberg, Michel D. Ferrari, Leon Coulier, Thomas Hankemeier

    Analytical Chemistry **2010** *82* (1), 156-162

31. **Facile Identification and Quantitation of Protein Phosphorylation via β-Elimination and Michael Addition with Natural Abundance and Stable Isotope Labeled Thiocholine**

    Meng Chen, Xiong Su, Jingyue Yang, Christopher M. Jenkins, Ari M. Cedars, Richard W. Gross

    Analytical Chemistry **2010** *82* (1), 163-171

32. **Reactivity and Applications of New Amine Reactive Cross-Linkers for Mass Spectrometric Detection of Protein−Protein Complexes**

    Claudia Bich, Stefanie Maedler, Katja Chiesa, Fabio DeGiacomo, Nicolas Bogliotti, Renato Zenobi

    Analytical Chemistry **2010** *82* (1), 172-179

33. **Accurate Optical Analysis of Single-Molecule Entrapment in Nanoscale Vesicles**

Joseph E. Reiner, Andreas Jahn, Samuel M. Stavis, Michael J. Culbertson, Wyatt N. Vreeland, Daniel L. Burden, Jon Geist, Michael Gaitan

Analytical Chemistry **2010** *82* (1), 180-188

34. **Quantitative Detection of Single Molecules in Fluorescence Microscopy Images**

    Eric M. Peterson, Joel M. Harris

    Analytical Chemistry **2010** *82* (1), 189-196

35. **Diffractometric Detection of Proteins Using Microbead-Based Rolling Circle Amplification**

    Joonhyung Lee, Kutay Icoz, Ana Roberts, Andrew D. Ellington, Cagri A. Savran

    Analytical Chemistry **2010** *82* (1), 197-202

36. **Bidirectional Correlation of NMR and Capillary Electrophoresis Fingerprints: A New Approach to Investigating Schistosoma mansoni Infection in a Mouse Model**

    I. Garcia-Perez, A. Couto Alves, S. Angulo, J. V. Li, J. Utzinger, T. M. D. Ebbels, C. Legido-Quigley, J. K. Nicholson, E. Holmes, C. Barbas

    Analytical Chemistry **2010** *82* (1), 203-210

37. **Combination of Statistical Methods and Fourier Transform Ion Cyclotron Resonance Mass Spectrometry for More Comprehensive, Molecular-Level Interpretations of Petroleum Samples**

    Manhoi Hur, Injoon Yeo, Eunsuk Park, Young Hwan Kim, Jongshin Yoo, Eunkyoung Kim, Myoung-han No, Jaesuk Koh, Sunghwan Kim

    Analytical Chemistry **2010** *82* (1), 211-218

38. **Highly Specific Capture and Direct MALDI MS Analysis of Phosphopeptides by Zirconium Phosphonate on Self-Assembled Monolayers**

    Tri Hoang, Udo Roth, Karen Kowalewski, Christopher Belisle, Kerstin Steinert, Michael Karas

    Analytical Chemistry **2010** *82* (1), 219-228

39. **Novel Method to Detect DNA Methylation Using Gold Nanoparticles Coupled with Enzyme-Linkage Reactions**

    Tao Liu, Jing Zhao, Dongmei Zhang, Genxi Li

    Analytical Chemistry **2010** *82* (1), 229-233

40. **Measuring Surface Charge Density and Particle Height Using Surface Plasmon Resonance Technique**

    Xiaonan Shan, Xinping Huang, Kyle J. Foley, Peiming Zhang, Kangping Chen, Shaopeng Wang, Nongjian Tao

    Analytical Chemistry **2010** *82* (1), 234-240

41. **Surface Molecular Self-Assembly for Organophosphate Pesticide Imprinting in Electropolymerized Poly(p-aminothiophenol) Membranes on a Gold Nanoparticle Modified Glassy Carbon Electrode**

    Chenggen Xie, Huaifen Li, Shanqi Li, Ju Wu, Zhongping Zhang

    Analytical Chemistry **2010** *82* (1), 241-249
42. **Sensitive Detection of H2S Using Gold Nanoparticle Decorated Single-Walled Carbon Nanotubes**

    Syed Mubeen, Ting Zhang, Nicha Chartuprayoon, Youngwoo Rheem, Ashok Mulchandani, Nosang V. Myung, Marc A. Deshusses

    Analytical Chemistry **2010** *82* (1), 250-257
43. **Ion-Transfer Voltammetric Behavior of Protein Digests at Liquid|Liquid Interfaces**

    Grégoire Herzog, Amandine Roger, David Sheehan, Damien W. M. Arrigan

    Analytical Chemistry **2010** *82* (1), 258-264
44. **Utility of Retention Prediction Model for Investigation of Peptide Separation Selectivity in Reversed-Phase Liquid Chromatography: Impact of Concentration of Trifluoroacetic Acid, Column Temperature, Gradient Slope and Type of Stationary Phase**

    Martin Gilar, Hongwei Xie, Aleksander Jaworski

    Analytical Chemistry **2010** *82* (1), 265-275
45. **Cylindrical Nanopore Electrode and Its Application to the Study of Electrochemical Reaction in Several Hundred Attoliter Volume**

    Peng Sun

    Analytical Chemistry **2010** *82* (1), 276-281
46. **Extractive Electrospray Ionization Mass Spectrometry for Sensitive Detection of Uranyl Species in Natural Water Samples**

    Mingbiao Luo, Bin Hu, Xie Zhang, Daofeng Peng, Huanwen Chen, Lili Zhang, Yanfu Huan

    Analytical Chemistry **2010** *82* (1), 282-289
47. **Screening and Quantification of Pesticides in Water Using a Dual-Function Graphitized Carbon Black Disk**

    Nahid Amini, Mohammadreza Shariatgorji, Carlo Crescenzi, Gunnar Thorsén

    Analytical Chemistry **2010** *82* (1), 290-296
48. **Picoliter Droplet Deposition Using a Prototype Picoliter Pipette: Control Parameters and Application in Micro X-ray Fluorescence**

    Ursula E. A. Fittschen, George J. Havrilla

Analytical Chemistry **2010** *82* (1), 297-306

49. Estimation of Migration-Time and Mobility Distributions in Organelle Capillary Electrophoresis with Statistical-Overlap Theory

Joe M. Davis, Edgar A. Arriaga

Analytical Chemistry **2010** *82* (1), 307-315

50. Analysis of Tandem Mass Spectra by FTMS for Improved Large-Scale Proteomics with Superior Protein Quantification

Graeme C. McAlister, Doug Phanstiel, Craig D. Wenger, M. Violet Lee, Joshua J. Coon

Analytical Chemistry **2010** *82* (1), 316-322

51. Complementarity of Solvent-Free MALDI TOF and Solid-State NMR Spectroscopy in Spectral Analysis of Polylactides

Anna Sroka-Bartnicka, Włodzimierz Ciesielski, Jan Libiszowski, Andrzej Duda, Marek Sochacki, Marek J. Potrzebowski

Analytical Chemistry **2010** *82* (1), 323-328

52. Fabrication and Characterization of Paper-Based Microfluidics Prepared in Nitrocellulose Membrane By Wax Printing

Yao Lu, Weiwei Shi, Jianhua Qin, Bingcheng Lin

Analytical Chemistry **2010** *82* (1), 329-335

53. Targeted Quantitation of Overexpressed and Endogenous Cystic Fibrosis Transmembrane Conductance Regulator Using Multiple Reaction Monitoring Tandem Mass Spectrometry and Oxygen Stable Isotope Dilution

Hui Jiang, Alexis A. Ramos, Xudong Yao

Analytical Chemistry **2010** *82* (1), 336-342

54. Microfluidic Devices Integrating Microcavity Surface-Plasmon-Resonance Sensors: Glucose Oxidase Binding-Activity Detection

Dragos Amarie, Abdelkrim Alileche, Bogdan Dragnea, James A. Glazier

Analytical Chemistry **2010** *82* (1), 343-352

55. Micronozzle Array Enhanced Sandwich Electroporation of Embryonic Stem Cells

Zhengzheng Fei, Xin Hu, Hae-woon Choi, Shengnian Wang, Dave Farson, L. James Lee

Analytical Chemistry **2010** *82* (1), 353-358

56. Automated Solvent-Free Matrix Deposition for Tissue Imaging by Mass Spectrometry

Sarah Trimpin, Thushani N. Herath, Ellen D. Inutan, Jim Wager-Miller, Paul Kowalski, Emmanuelle Claude, J. Michael Walker, Ken Mackie

Analytical Chemistry **2010** *82* (1), 359-367

57. **Triazolophanes: A New Class of Halide-Selective Ionophores for Potentiometric Sensors**

    Elsayed M. Zahran, Yuran Hua, Yongjun Li, Amar H. Flood, Leonidas G. Bachas

    Analytical Chemistry **2010** *82* (1), 368-375

58. **GC/MS Analytical Procedure for the Characterization of Glycerolipids, Natural Waxes, Terpenoid Resins, Proteinaceous and Polysaccharide Materials in the Same Paint Microsample Avoiding Interferences from Inorganic Media**

    Anna Lluveras, Ilaria Bonaduce, Alessia Andreotti, Maria Perla Colombini

    Analytical Chemistry **2010** *82* (1), 376-386

59. **Analysis of Black Powder by Ion Mobility−Time-of-Flight Mass Spectrometry**

    Christina L. Crawford, Hacene Boudries, Ralph J. Reda, Kristyn M. Roscioli, Kimberly A. Kaplan, William F. Siems, Herbert H. Hill Jr.

    Analytical Chemistry **2010** *82* (1), 387-393

60. **Highly Resolutive Separations of Hardly Soluble Synthetic Polypeptides by Capillary Electrophoresis**

    Hélène Miramon, Florine Cavelier, Jean Martinez, Hervé Cottet

    Analytical Chemistry **2010** *82* (1), 394-399

61. **Multiplexed Interfacial Transduction of Nucleic Acid Hybridization Using a Single Color of Immobilized Quantum Dot Donor and Two Acceptors in Fluorescence Resonance Energy Transfer**

    W. Russ Algar, Ulrich J. Krull

    Analytical Chemistry **2010** *82* (1), 400-405

62. **Effect of Physicochemical Anomalies of Soda-Lime Silicate Slides on Biomolecule Immobilization**

    Stella H. North, Evgeniya H. Lock, Tiffany R. King, James B. Franek, Scott G. Walton, Chris R. Taitt

    Analytical Chemistry **2010** *82* (1), 406-412

63. **Enrichment, Resolution, and Identification of Nickel Porphyrins in Petroleum Asphaltene by Cyclograph Separation and Atmospheric Pressure Photoionization Fourier Transform Ion Cyclotron Resonance Mass Spectrometry**

    Kuangnan Qian, Kathleen E. Edwards, Anthony S. Mennito, Clifford C. Walters, J. Douglas Kushnerick

    Analytical Chemistry **2010** *82* (1), 413-419

64. **Direct Compound-Specific Stable Chlorine Isotope Analysis of Organic Compounds with Quadrupole GC/MS Using Standard Isotope Bracketing**

Christoph Aeppli, Henry Holmstrand, Per Andersson, rjan Gustafsson

Analytical Chemistry **2010** *82* (1), 420-426

65. Linearized Equations for the Reduced Ion Mobilities of Polar Aliphatic Organic Compounds

Chandrasekhara B. Hariharan, J rg I. Baumbach, Wolfgang Vautz

Analytical Chemistry **2010** *82* (1), 427-431

66. Experimental Determination of the Förster Distance for Two Commonly Used Bioluminescent Resonance Energy Transfer Pairs

H. Dacres, J. Wang, M. M. Dumancic, S. C. Trowell

Analytical Chemistry **2010** *82* (1), 432-435

67. Magnesium-Selective Ion-Channel Mimetic Sensor with a Traditional Calcium Ionophore

Jingwei Zhu, Yu Qin, Yunhong Zhang

Analytical Chemistry **2010** *82* (1), 436-440

68. Synthesis of Core−Shell Surface-Enhanced Raman Tags for Bioimaging

Xiangjiang Liu, Maria Knauer, Natalia P. Ivleva, Reinhard Niessner, Christoph Haisch

Analytical Chemistry **2010** *82* (1), 441-446

69. Single Gold Microshell Tailored to Sensitive Surface Enhanced Raman Scattering Probe

Lilin Piao, Sejin Park, Hyang Bong Lee, Kwan Kim, Jongwon Kim, Taek Dong Chung

Analytical Chemistry **2010** *82* (1), 447-451

70. Feasibility Study for the Fractionation of the Major Human Immunoglobulin G Subclasses Using Hydrophobic Interaction Membrane Chromatography

Lu Wang, Raja Ghosh

Analytical Chemistry **2010** *82* (1), 452-455