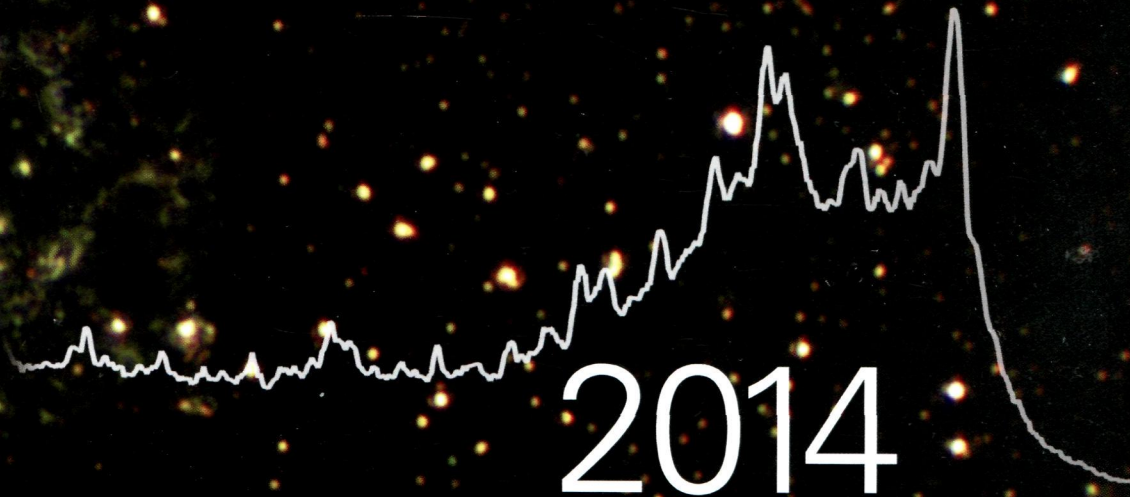


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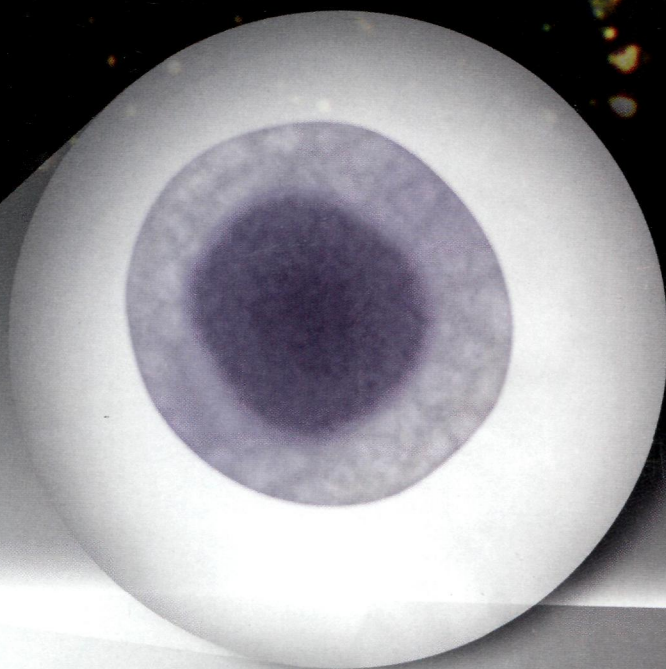
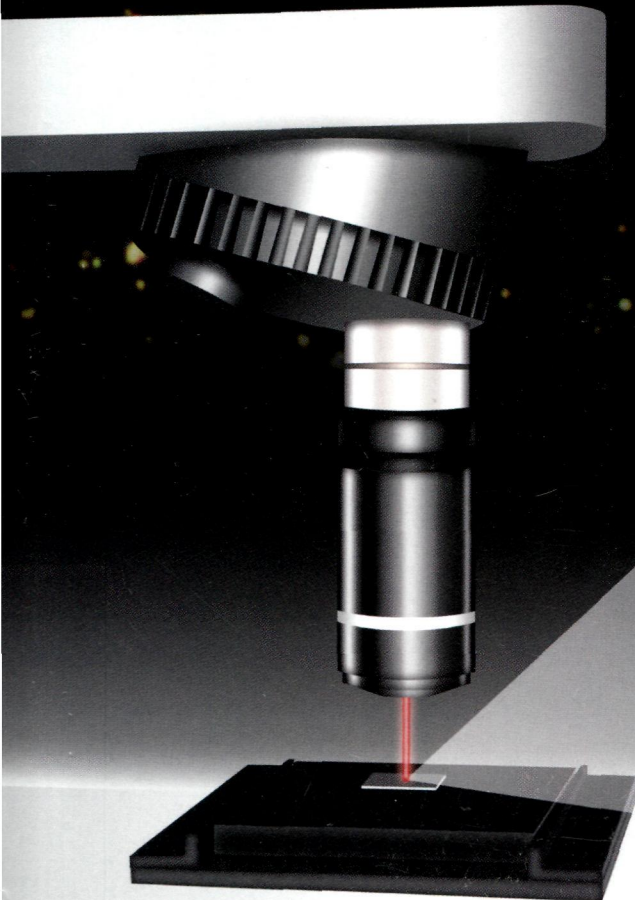
# analytical chemistry

January 7, 2014 Volume 86 Number 1



# 2014

**Fundamental and  
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## SPECIAL ISSUE: FUNDAMENTAL AND APPLIED REVIEWS IN ANALYTICAL CHEMISTRY

1 dx.doi.org/10.1021/ac404014r

**Critical Reviews in Analytical Chemistry**  
Catherine Fenselau

### Reviews

2 dx.doi.org/10.1021/ac403890n

**Detection, Counting, and Imaging of Single Nanoparticles**  
Wei Wang and Nongjian Tao\*

15 dx.doi.org/10.1021/ac4035168

**Optical Chemical pH Sensors**  
Dorota Wencel,\* Tobias Abel, and Colette McDonagh

30 dx.doi.org/10.1021/ac403640f

**Advances in Biomedical Raman Microscopy**  
Karen A. Antonio and Zachary D. Schultz\*

47 dx.doi.org/10.1021/ac403520j

**Multidimensional Approaches to NMR-Based Metabolomics**  
Kerem Bingol and Rafael Brüschweiler\*

58 dx.doi.org/10.1021/ac403956k

**Recent Advances in Solid-State Nuclear Magnetic Resonance Techniques to Quantify Biomolecular Dynamics**  
Eric D. Watt and Chad M. Rienstra\*

65 dx.doi.org/10.1021/ac401791h

**NMR Chemical Shifts in Structural Biology of Glycosaminoglycans**  
Vitor H. Pomin\*

95 dx.doi.org/10.1021/ac403688g

**Micro Total Analysis Systems: Fundamental Advances and Biological Applications**  
Christopher T. Culbertson,\* Tom G. Mickleburgh, Samantha A. Stewart-James, Kathleen A. Sellens, and Melissa Pressnall

119 dx.doi.org/10.1021/ac402898j

**Biosensors as 21st Century Technology for Detecting Genetically Modified Organisms in Food and Feed**  
Mary A. Arugula, Yuanyuan Zhang, and Alex L. Simonian\*

130 dx.doi.org/10.1021/ac4038812

**Theranostics in the Growing Field of Personalized Medicine: An Analytical Chemistry Perspective**  
Niall Crawley, Michael Thompson,\* and Alexander Romaschin

161 dx.doi.org/10.1021/ac403554h

**Analytical Methods in Lipidomics and Their Applications**  
Min Li, Li Yang, Yu Bai, and Huwei Liu\*

176 dx.doi.org/10.1021/ac403551f

**Fine Tuning of Proteomic Technologies to Improve Biological Findings: Advancements in 2011–2013**  
Janice Mayne, Amanda E. Starr, Zhibin Ning, Rui Chen, Cheng-Kang Chiang, and Daniel Figeys\*

196 dx.doi.org/10.1021/ac403969n

**Oligosaccharide Analysis by Mass Spectrometry: A Review of Recent Developments**  
Muchena J. Kailemia, L. Renee Ruhaak, Carlito B. Lebrilla, and I. Jonathan Amster\*

213 dx.doi.org/10.1021/ac4039306

**Mass Spectrometry Methods for Studying Structure and Dynamics of Biological Macromolecules**  
Lars Konermann,\* Siavash Vahidi, and Modupeola A. Sowole

233 dx.doi.org/10.1021/ac4038569

**Mechanisms of Real-Time, Proximal Sample Processing during Ambient Ionization Mass Spectrometry**  
Andre R. Venter,\* Kevin A. Douglass, Jacob T. Shelley, Gregg Hasman Jr., and Elahe Honarvar

250 dx.doi.org/10.1021/ac401251j

**Bioapplications for Molecularly Imprinted Polymers**  
Romana Schirhagl\*

262 dx.doi.org/10.1021/ac4035554  
**Ionic Liquids in Analytical Chemistry: Fundamentals, Advances, and Perspectives**  
Tien D. Ho, Cheng Zhang, Leandro W. Hantao, and Jared L. Anderson\*

## Features

286 dx.doi.org/10.1021/ac402377d  
**Multivariate Curve Resolution of Hyphenated and Multidimensional Chromatographic Measurements: A New Insight to Address Current Chromatographic Challenges**  
Hadi Parastar\* and Roma Tauler\*

## Letters to Analytical Chemistry

298 dx.doi.org/10.1021/ac403629t  
**Fluorescent Aptasensor Based on Aggregation-Induced Emission Probe and Graphene Oxide**  
Xing Li, Ke Ma, Shoujun Zhu, Shiyu Yao, Zhaoyang Liu, Bin Xu,\* Bai Yang, and Wenjing Tian\*

304 dx.doi.org/10.1021/ac402962f  
**Detection of the Oxygen Consumption Rate of Migrating Zebrafish by Electrochemical Equalization Systems**  
Tomoyuki Yasukawa,\* Masahiro Koide, Norihisa Tatarazako, Ryoko Abe, Hitoshi Shiku, Fumio Mizutani, and Tomokazu Matsue\*

308 dx.doi.org/10.1021/ac403226h  
**Quinoline-Based Two-Photon Fluorescent Probe for Nitric Oxide in Live Cells and Tissues**  
Xiaohu Dong, Cheol Ho Heo, Shiyu Chen, Hwan Myung Kim,\* and Zhihong Liu\*

312 dx.doi.org/10.1021/ac403235y  
**Aptamer-Based Sensing Platform Using Three-Way DNA Junction-Driven Strand Displacement and Its Application in DNA Logic Circuit**  
Jinbo Zhu, Libing Zhang, Zhixue Zhou, Shaojun Dong, and Erkang Wang\*

317 dx.doi.org/10.1021/ac4033214  
**Native Top-Down Electrospray Ionization-Mass Spectrometry of 158 kDa Protein Complex by High-Resolution Fourier Transform Ion Cyclotron Resonance Mass Spectrometry**  
Huillin Li, Jeremy J. Wolff, Steve L. Van Orden, and Joseph A. Loo\*

321 dx.doi.org/10.1021/ac403421v  
**MALDI Mass Spectrometry Imaging in Microscope Mode with Infrared Lasers: Bypassing the Diffraction Limits**  
Jens Saltwisch, Guido Göritz, Julia H. Jungmann, András Kiss, Donald F. Smith, Shane R. Ellis, and Ron M.A. Heeren\*

326 dx.doi.org/10.1021/ac403625a  
**Method to Detect Contaminants in Heparin Using Radical Depolymerization and Liquid Chromatography–Mass Spectrometry**  
Guoyun Li, Chao Cai, Lingyun Li, Li Fu, Yuqing Chang, Fuming Zhang, Toshihiko Toida, Changhu Xue, and Robert J. Linhardt\*

331 dx.doi.org/10.1021/ac4036263  
**Chemical-Vapor-Assisted Electrospray Ionization for Increasing Analyte Signals in Electrospray Ionization Mass Spectrometry**  
Zhendong Li and Liang Li\*

336 dx.doi.org/10.1021/ac4038043  
**Exponential Strand-Displacement Amplification for Detection of MicroRNAs**  
Chao Shi, Qi Liu, Cuiping Ma,\* and Wenwan Zhong\*

## Technical Notes

340 dx.doi.org/10.1021/ac403269a  
**Electrochemical Reduction of Disulfide-Containing Proteins for Hydrogen/Deuterium Exchange Monitored by Mass Spectrometry**  
Simon Mysling, Rune Salbo, Michael Ploug, and Thomas J. D. Jørgensen\*

346 dx.doi.org/10.1021/ac402720g  
**Associated Analysis of DNA Methylation for Cancer Detection Using CCP-Based FRET Technique**  
Jiangyan Zhang, Baoling Xing, Jinzhao Song, Feng Zhang, Chenyao Nie, Lian Jiao, Libing Liu, Fengting Lv, and Shu Wang\*

351 dx.doi.org/10.1021/ac4032725  
**4-Aminothiophenol Functionalized Gold Nanoparticle-Based Colorimetric Sensor for the Determination of Nitramine Energetic Materials**  
Ayşem Üzer, Ziya Can, İknur Akın, Erol Erçağ, and Reşat Apak\*

357 dx.doi.org/10.1021/ac403133t  
**Direct Determination of Urinary Creatinine by Reactive-Thermal Desorption-Extractive Electrospray-Ion Mobility-Tandem Mass Spectrometry.**  
Neil A. Devenport, Daniel J. Blenkhorn, Daniel J. Weston, James C. Reynolds,\* and Colin S. Creaser\*

362 dx.doi.org/10.1021/ac403188k  
**Spatially Resolved In Situ Measurements of the Ion Distribution Near the Surface of Electrode in a Steady-State Diffusion in an Electrolytic Tank with Confocal Micro X-ray Fluorescence**  
Song Peng, Zhiguo Liu, Tianxi Sun,\* Yongzhong Ma, and Xunliang Ding


367  dx.doi.org/10.1021/ac403519p  
**In Situ Control of Local pH Using a Boron Doped Diamond Ring Disk Electrode: Optimizing Heavy Metal (Mercury) Detection**  
Tania L. Read, Eleni Bitziou, Maxim B. Joseph, and Julie V. Macpherson\*

## Articles

372  dx.doi.org/10.1021/ac403193k  
**Fragmentation of Positively-Charged Biological Ions Activated with a Beam of High-Energy Cations**  
Konstantin Chingin, Alexander Makarov, Eduard Denisov, Oleksii Rebrov, and Roman A. Zubarev\*

380  dx.doi.org/10.1021/ac4015929  
**Dynamic Oil Consumption Measurement of Internal Combustion Engines using Laser Spectroscopy**  
Stefan Sellmeier, Eduardo Alonso, and Ulrich Boesl\*

390 dx.doi.org/10.1021/ac403808f  
**Multielectrode Bisensor System for Time-Resolved Monitoring of Ion Transport Across an Epithelial Cell Layer**  
Renata Toczyłowska-Mamińska, Andrzej Lewenstam,\* and Krzysztof Dołowy

395  dx.doi.org/10.1021/ac401821d  
**Multiple Reaction Monitoring Mass Spectrometry for the Discovery and Quantification of O-GlcNAc-Modified Proteins**  
Julien Jean Pierre Maury, Daniel Ng, Xuezhi Bi, Muriel Bardor, and Andre Boon-Hwa Choo\*


403  dx.doi.org/10.1021/ac4035339  
**Preparation of a Particle-Loaded Membrane for Trace Gas Sampling**  
Ruifen Jiang and Janusz Pawliszyn\*

411  dx.doi.org/10.1021/ac4033142  
**Polyacrylate Microspheres for Tunable Fluorimetric Zinc Ions Sensor**  
Emilia Woźnica, Krzysztof Maksymiuk, and Agata Michalska\*

419  dx.doi.org/10.1021/ac402158j  
**Sensitive and Selective Detection of Copper Ions with Highly Stable Polyethyleneimine-Protected Silver Nanoclusters**  
Zhiqin Yuan, Na Cai, Yi Du, Yan He,\* and Edward S. Yeung


427  dx.doi.org/10.1021/ac402247j  
**Simultaneous Measurement of Trace Metal and Oxyanion Concentrations in Water using Diffusive Gradients in Thin Films with a Chelex–Metsorb Mixed Binding Layer**  
Jared G. Panther, William W. Bennett, David T. Welsh, and Peter R. Teasdale\*

435  dx.doi.org/10.1021/ac402328w  
**Mechanism of Ion Transfer in Supported Liquid Membrane Systems: Electrochemical Control over Membrane Distribution**  
Matěj Velický, Kin Y. Tam, and Robert A.W. Dryfe\*


443  dx.doi.org/10.1021/ac4023378  
**Comparing Label-Free Quantitative Peptidomics Approaches to Characterize Diurnal Variation of Peptides in the Rat Suprachiasmatic Nucleus**  
Bruce R. Southey, Ji Eun Lee, Leonid Zamdborg, Norman Atkins Jr., Jennifer W. Mitchell, Mingxi Li, Martha U. Gillette, Neil L. Kelleher, and Jonathan V. Sweedler\*


453  dx.doi.org/10.1021/ac402338u  
**Computational Framework for Identification of Intact Glycopeptides in Complex Samples**  
Anoop Mayampurath, Chuan-Yih Yu, Ehwang Song, Jagadheshwar Balan, Yehia Mechref,\* and Haixu Tang\*


464  dx.doi.org/10.1021/ac402364g  
**Fluorometric Measurement and Modeling of Droplet Temperature Changes in an Electrospray Plume**  
Stephen C. Gibson, Charles S. Feigerle, and Kelsey D. Cook\*













473  dx.doi.org/10.1021/ac4023555  
**A New Analytical Bench Assay for the Determination of Arylsulfatase A Activity Toward Galactosyl-3-Sulfate Ceramide: Implication for Metachromatic Leukodystrophy Diagnosis**  
Francesco Morena, Ilaria di Girolamo, Carla Emiliani, Angela Gritti, Alessandra Biffi, and Sabata Martino\*

482  dx.doi.org/10.1021/ac402389w  
**Facile Preparation of Well-Defined Hydrophilic Core–Shell Upconversion Nanoparticles for Selective Cell Membrane Glycan Labeling and Cancer Cell Imaging**  
WanJun Zhang, Bo Peng, Fang Tian, Weijie Qin,\* and Xiaohong Qian\*

490  dx.doi.org/10.1021/ac402396r  
**Direct Quantification of Molar Masses of Copolymers by Online Liquid Chromatography under Critical Conditions–Nuclear Magnetic Resonance and Size Exclusion Chromatography–Nuclear Magnetic Resonance**  
Mathias Hehn, Thomas Wagner, and Wolf Hiller\*

498  dx.doi.org/10.1021/ac402475m  
**Investigating Catalase Activity Through Hydrogen Peroxide Decomposition by Bacteria Biofilms in Real Time Using Scanning Electrochemical Microscopy**  
Erwin Abucayon, Neng Ke, Renaud Cornut, Anthony Patelunas, Douglas Miller, Michele K. Nishiguchi, and Cynthia G. Zoski\*

506  dx.doi.org/10.1021/ac402477z  
**MetaboLyzer: A Novel Statistical Workflow for Analyzing Postprocessed LC–MS Metabolomics Data**  
Tytus D. Mak,\* Evagelia C. Laiakis, Maryam Goudarzi, and Albert J. Fornace Jr.

- 514  [dx.doi.org/10.1021/ac403447a](https://doi.org/10.1021/ac403447a)  
**Lysine-Promoted Colorimetric Response of Gold Nanoparticles: A Simple Assay for Ultrasensitive Mercury(II) Detection**  
 Gulsu Sener, Lokman Uzun, and Adil Denizli\*
- 521  [dx.doi.org/10.1021/ac4024439](https://doi.org/10.1021/ac4024439)  
**Distribution and Chemical Speciation of Arsenic in Ancient Human Hair Using Synchrotron Radiation**  
 Ioanna Kakoulli,\* Sergey V. Prikhodko, Christian Fischer, Marianne Cilluffo, Mauricio Uribe, Hans A. Bechtel, Sirine C. Fakra, and Matthew A. Marcus
- 527  [dx.doi.org/10.1021/ac4025335](https://doi.org/10.1021/ac4025335)  
**Throwing Light on Petroleum: Simulated Exposure of Crude Oil to Sunlight and Characterization Using Atmospheric Pressure Photoionization Fourier Transform Ion Cyclotron Resonance Mass Spectrometry**  
 Matthew T. Griffiths, Raffaello Da Campo, Peter B. O'Connor, and Mark P. Barrow\*
- 535 [dx.doi.org/10.1021/ac402546b](https://doi.org/10.1021/ac402546b)  
**High-Throughput Screening (HTS) of Anticancer Drug Efficacy on a Micropillar/Microwell Chip Platform**  
 Dong Woo Lee,\* Yeon-Sook Choi, Yun Jee Seo, Moo-Yeal Lee, Sang Youl Jeon, Bosung Ku, Sangjin Kim, Sang Hyun Yi, and Do-Hyun Nam
- 543  [dx.doi.org/10.1021/ac402571z](https://doi.org/10.1021/ac402571z)  
**A Systematic Approach to Obtain Validated Partial Least Square Models for Predicting Lipoprotein Subclasses from Serum NMR Spectra**  
 Velitchka V. Mihaleva,\* Daniël B. van Schalkwijk, Albert A. de Graaf, John van Duynhoven, Ferdinand A. van Dorsten, Jacques Vervoort, Age Smilde, Johan A. Westerhuis, and Doris M. Jacobs
- 551  [dx.doi.org/10.1021/ac4027274](https://doi.org/10.1021/ac4027274)  
**Quantitative Bottom-Up Proteomics Depends on Digestion Conditions**  
 Mark S. Lowenthal,\* Yuxue Liang, Karen W. Phinney, and Stephen E. Stein
- 559  [dx.doi.org/10.1021/ac402624a](https://doi.org/10.1021/ac402624a)  
**Peak Distortion Effects in Analytical Ion Chromatography**  
 M. Farooq Wahab, Jordan K. Anderson, Mohamed Abdelrady, and Charles A. Lucy\*
- 567  [dx.doi.org/10.1021/ac4026362](https://doi.org/10.1021/ac4026362)  
**Modeling Deamidation in Sheep  $\alpha$ -Keratin Peptides and Application to Archeological Wool Textiles**  
 Caroline Solazzo,\* Julie Wilson, Jolon M. Dyer, Stefan Clerens, Jeffrey E. Plowman, Isabella von Holstein, Penelope Walton Rogers, Elizabeth E. Peacock, and Matthew J. Collins
- 576  [dx.doi.org/10.1021/ac402726r](https://doi.org/10.1021/ac402726r)  
**N- and O-Glycosylation Analysis of Etanercept Using Liquid Chromatography and Quadrupole Time-of-Flight Mass Spectrometry Equipped with Electron-Transfer Dissociation Functionality**  
 Stephane Houel, Mark Hilliard, Ying Qing Yu, Niaobh McLoughlin, Silvia Millan Martin, Pauline M. Rudd, Jonathan P. Williams, and Weibin Chen\*
- 585 [dx.doi.org/10.1021/ac402668p](https://doi.org/10.1021/ac402668p)  
**DNA Quantification via ICP-MS Using Lanthanide-Labeled Probes and Ligation-Mediated Amplification**  
 Kathrin Brückner, Kathleen Schwarz, Sebastian Beck, and Michael W. Linscheid\*
- 592  [dx.doi.org/10.1021/ac402698h](https://doi.org/10.1021/ac402698h)  
**Trust-Region Algorithm for the Inversion of Molecular Diffusion NMR Data**  
 Kaipin Xu and Shanmin Zhang\*
- 600  [dx.doi.org/10.1021/ac402802a](https://doi.org/10.1021/ac402802a)  
**In-Gel Microwave-Assisted Acid Hydrolysis of Proteins Combined with Liquid Chromatography Tandem Mass Spectrometry for Mapping Protein Sequences**  
 Difei Sun, Nan Wang, and Liang Li\*
- 608  [dx.doi.org/10.1021/ac402830q](https://doi.org/10.1021/ac402830q)  
**Particle Tracking and Multispectral Collocation Method for Particle-to-Particle Binding Assays**  
 Anita Rogacs and Juan G. Santiago\*
- 615 [dx.doi.org/10.1021/ac4028577](https://doi.org/10.1021/ac4028577)  
**Elemental Bioimaging of Nanosilver-Coated Prostheses Using X-ray Fluorescence Spectroscopy and Laser Ablation-Inductively Coupled Plasma-Mass Spectrometry**  
 Franziska Blaske, Olga Reifschneider, Georg Gosheger, Christoph A. Wehe, Michael Sperling, Uwe Karst,\* Gregor Hauschild, and Steffen Höll
- 621 [dx.doi.org/10.1021/ac402872t](https://doi.org/10.1021/ac402872t)  
**Glycosylation Characterization of Human and Porcine Fibrinogen Proteins by Lectin-Binding Biophotonic Microarray Imaging**  
 Rouslan V. Olkhov, Martin J. Weissenborn, Sabine L. Flitsch, and Andrew M. Shaw\*
- 629 [dx.doi.org/10.1021/ac402892m](https://doi.org/10.1021/ac402892m)  
**Evolution of Influenza Neuraminidase and the Detection of Antiviral Resistant Strains Using Mass Trees**  
 Kavya Swaminathan and Kevin M. Downard\*
- 638  [dx.doi.org/10.1021/ac404044k](https://doi.org/10.1021/ac404044k)  
**Comprehensive Imaging of Porcine Adrenal Gland Lipids by MALDI-FTMS Using Quercetin as a Matrix**  
 Xiaodong Wang, Jun Han, Jingxi Pan, and Christoph H. Borchers\*

647  dx.doi.org/10.1021/ac402941e

**MALDI MS and ICP MS Detection of a Single CE Separation Record: A Tool for Metalloproteomics**  
Iva Tomalová, Pavla Foltynová, Viktor Kanický, and Jan Preisler\*

655  dx.doi.org/10.1021/ac402961t

**Microfabricated Gas Chromatograph for Rapid, Trace-Level Determinations of Gas-Phase Explosive Marker Compounds**  
William R. Collin, Gustavo Serrano, Lindsay K. Wright, Hungwei Chang, Nicolás Nuñovero, and Edward T. Zellers\*

664 dx.doi.org/10.1021/ac403004v


**Fabrication of a Sealed Electrochemical Microcell for in Situ Soft X-ray Microspectroscopy and Testing with in Situ Copolypyrrole Composite Electrodeposition for Pt-Free Oxygen Electrocatalysis**  
Benedetto Bozzini,\* Alessandra Gianoncelli, Patrizia Bocchetta, Simone Dal Zilio, and George Kourousias

671  dx.doi.org/10.1021/ac403603r

**Oxidative Cleavage-Based Near-Infrared Fluorescent Probe for Hypochlorous Acid Detection and Myeloperoxidase Activity Evaluation**  
Mingtai Sun, Huan Yu, Houjuan Zhu, Fang Ma, Shan Zhang, Dejian Huang, and Suhua Wang\*

678  dx.doi.org/10.1021/ac403031c

**Fast Serial Analysis of Active Cholesterol at the Plasma Membrane in Single Cells**  
Chunxiu Tian, Junyu Zhou, Zeng-Qiang Wu, Danjun Fang,\* and Dechen Jiang\*

685  dx.doi.org/10.1021/ac4031175

**Sequential Phosphoproteomic Enrichment through Complementary Metal-Directed Immobilized Metal Ion Affinity Chromatography**  
Chia-Feng Tsai, Chuan-Chih Hsu, Jo-Nan Hung, Yi-Ting Wang, Wai-Kok Choong, Ming-Yao Zeng, Pei-Yi Lin, Ruo-Wei Hong, Ting-Yi Sung, and Yu-Ju Chen\*

694  dx.doi.org/10.1021/ac403055d

**Multidimensional LC-MS/MS Enables Simultaneous Quantification of Intact Human Insulin and Five Recombinant Analogs in Human Plasma**  
Erin E. Chambers,\* Kenneth J. Fountain, Norman Smith, Leah Ashraf, Janaka Karalliedde, David Cowan, and Cristina Legido-Quigley\*

703  dx.doi.org/10.1021/ac403137h

**Single-Cell Forensic Short Tandem Repeat Typing within Microfluidic Droplets**  
Tao Geng, Richard Novak, and Richard A. Mathies\*

713  dx.doi.org/10.1021/ac403168p

**Finger Probe Array for Topography-Tolerant Scanning Electrochemical Microscopy of Extended Samples**  
Andreas Lesch, Po-Chung Chen, Folkert Roelfs, Carsten Dosche, Dmitry Momotenko, Fernando Cortés-Salazar, Hubert H. Girault, and Gunther Wittstock\*

721  dx.doi.org/10.1021/ac403187g

**Photodamage and the Importance of Photoprotection in Biomolecular-Powered Device Applications**  
Virginia VanDelinder and George D. Bachand\*

729  dx.doi.org/10.1021/ac403190a

**High-Resolution Hydrodynamic Chromatographic Separation of Large DNA Using Narrow, Bare Open Capillaries: A Rapid and Economical Alternative Technology to Pulsed-Field Gel Electrophoresis?**  
Lei Liu, Vijaykumar Veerappan, Qiaosheng Pu, Chang Cheng, Xiayan Wang,\* Liping Lu, Randy D. Allen, and Guangsheng Guo\*

737  dx.doi.org/10.1021/ac4031994

**Fast DNA Sieving through Submicrometer Cylindrical Glass Capillary Matrix**  
Zhen Cao and Levent Yobas\*

744  dx.doi.org/10.1021/ac403228d

**Enhanced MALDI MS Sensitivity by Weak Base Additives and Glycerol Sample Coating**  
Rainer Cramer,\* Michael Karas, and Thorsten W. Jaskolla

752 dx.doi.org/10.1021/ac403250w

**On the Direct Electron Transfer, Sensing, and Enzyme Activity in the Glucose Oxidase/Carbon Nanotubes System**  
Marilyn Wooten, Sushma Karra, Maogen Zhang, and Waldemar Gorski\*

758  dx.doi.org/10.1021/ac403345s

**Organic Solvent-Free Cloud Point Extraction-like Methodology Using Aggregation of Graphene Oxide**  
Dongyan Deng, Xiaoming Jiang, Lu Yang, Xiandeng Hou, and Chengbin Zheng\*

766  dx.doi.org/10.1021/ac4032719

**Identifying Zn-Bound Histidine Residues in Metalloproteins Using Hydrogen–Deuterium Exchange Mass Spectrometry**  
Jia Dong, Katie L. Callahan, Nicholas B. Borotto, and Richard W. Vachet\*

774  dx.doi.org/10.1021/ac403274a

**Results of an Interlaboratory Comparison of Analytical Methods for Contaminants of Emerging Concern in Water**  
Brett J. Vanderford,\* Jörg E. Drewes, Andrew Eaton, Yingbo C. Guo, Ali Haghani, Christiane Hoppe-Jones, Michael P. Schluesener, Shane A. Snyder, Thomas Ternes, and Curtis J. Wood

783  [dx.doi.org/10.1021/ac403284f](https://doi.org/10.1021/ac403284f)

**Infrared Attenuated Total Reflection Spectroscopy for the Characterization of Gold Nanoparticles in Solution**

Ángela Inmaculada López-Lorente, Markus Sieger, Miguel Valcárcel,\* and Boris Mizaikoff\*

790  [dx.doi.org/10.1021/ac403289d](https://doi.org/10.1021/ac403289d)

**Influence of Particle Coating and Matrix Constituents on the Cloud Point Extraction Efficiency of Silver Nanoparticles (Ag-NPs) and Application for Monitoring the Formation of Ag-NPs from Ag<sup>+</sup>**

Georg Hartmann, Tanja Baumgartner, and Michael Schuster\*

797  [dx.doi.org/10.1021/ac403315h](https://doi.org/10.1021/ac403315h)


**Simultaneous Determination of Post-Translational Racemization and Isomerization of N-Terminal Amyloid- $\beta$  in Alzheimer's Brain Tissues by Covalent Chiral Derivatized Ultraperformance Liquid Chromatography Tandem Mass Spectrometry**

Koichi Inoue, Daiju Hosaka, Nana Mochizuki, Hiroyasu Akatsu, Kaname Tsutsumiuchi, Yoshio Hashizume, Noriyuki Matsukawa, Takayuki Yamamoto, and Toshimasa Toyo'oka\*

805  [dx.doi.org/10.1021/ac403376h](https://doi.org/10.1021/ac403376h)

**Chromatographic Resolution of Closely Related Species in Pharmaceutical Chemistry: Dehalogenation Impurities and Mixtures of Halogen Isomers**

Erik L. Regalado,\* Ping Zhuang, Yadan Chen, Alexey A. Makarov, Wes A. Schafer, Neil McGachy, and Christopher J. Welch\*

814  [dx.doi.org/10.1021/ac4033565](https://doi.org/10.1021/ac4033565)

**Ultrasensitive and Ultrawide Range Detection of a Cardiac Biomarker on a Surface Plasmon Resonance Platform**

Hye Ri Jang, Alastair W. Wark, Seung Hee Baek, Bong Hyun Chung, and Hye Jin Lee\*

820  [dx.doi.org/10.1021/ac403365g](https://doi.org/10.1021/ac403365g)

**Resolving Isotopic Fine Structure to Detect and Quantify Natural Abundance- and Hydrogen/Deuterium Exchange-Derived Isotopomers**

Qian Liu, Michael L. Easterling, and Jeffrey N. Agar\*

826  [dx.doi.org/10.1021/ac403390y](https://doi.org/10.1021/ac403390y)

**A Direct-Infusion- and HPLC-ESI-Orbitrap-MS Approach for the Characterization of Intact PEGylated Proteins**

Ines C. Forstenlehner, Johann Holzmann, Kai Scheffler, Wolfgang Wieder, Hansjörg Toll, and Christian G. Huber\*

835  [dx.doi.org/10.1021/ac403391q](https://doi.org/10.1021/ac403391q)

**Label-Free In-Flow Detection of Single DNA Molecules using Glass Nanopipettes**

Xiuqing Gong, Amol V. Patil, Aleksandar P. Ivanov, Qingyuan Kong, Thomas Gibb, Fatma Dogan, Andrew J. deMello, and Joshua B. Edel\*

842  [dx.doi.org/10.1021/ac403378d](https://doi.org/10.1021/ac403378d)

**Recyclable Decoration of Amine-Functionalized Magnetic Nanoparticles with Ni<sup>2+</sup> for Determination of Histidine by Photochemical Vapor Generation Atomic Spectrometry**

Yuan Hu, Qi Wang, Chengbin Zheng,\* Li Wu, Xiandeng Hou, and Yi Lv\*

849  [dx.doi.org/10.1021/ac403417z](https://doi.org/10.1021/ac403417z)


**Isolation and Amplification of mRNA within a Simple Microfluidic Lab on a Chip**

Sarah J. Reinholt, Arne Behrent, Cassandra Greene, Ayten Kalfe, and Antje J. Baeumner\*

857  [dx.doi.org/10.1021/ac403518s](https://doi.org/10.1021/ac403518s)

**Atmospheric Helium Capillary Dielectric Barrier Discharge for Soft Ionization: Determination of Atom Number Densities in the Lowest Excited and Metastable States**

Vlasta Horvatic, Saskia Müller, Damir Veza, Cedomil Vadla, and Joachim Franzke\*

865  [dx.doi.org/10.1021/ac4034278](https://doi.org/10.1021/ac4034278)

**Strontium Randomly Substituting for Calcium in Fish Otolith Aragonite**

Zoë A. Doubleday,\* Hugh H. Harris,\* Christopher Izzo, and Bronwyn M. Gillanders

870  [dx.doi.org/10.1021/ac4034399](https://doi.org/10.1021/ac4034399)

**Acetone Cataluminescence as an Indicator for Evaluation of Heterogeneous Base Catalysts in Biodiesel Production**

Lijuan Zhang, Yingchun Chen, Nan He, and Chao Lu\*

876  [dx.doi.org/10.1021/ac4034467](https://doi.org/10.1021/ac4034467)

**Ni/CdS Bifunctional Ti@TiO<sub>2</sub> Core-Shell Nanowire Electrode for High-Performance Nonenzymatic Glucose Sensing**

Chunyan Guo, Huanhuan Huo, Xu Han, Cailing Xu,\* and Hulin Li

884  [dx.doi.org/10.1021/ac403458b](https://doi.org/10.1021/ac403458b)

**Amplified Detection of T4 Polynucleotide Kinase Activity by the Coupled  $\lambda$  Exonuclease Cleavage Reaction and Catalytic Assembly of Bimolecular Beacons**

Ting Hou, Xiuzhong Wang, Xiaojuan Liu, Tingting Lu, Shufeng Liu,\* and Feng Li\*

891  [dx.doi.org/10.1021/ac4034592](https://doi.org/10.1021/ac4034592)

**ON-OFF Mechanism of a Fluorescent Sensor for the Detection of Zn(II), Cd(II), and Cu(II) Transition Metal Ions**

Huizhen Su, Xuebo Chen,\* and Weihai Fang\*

900  [dx.doi.org/10.1021/ac403531x](https://doi.org/10.1021/ac403531x)

**Microbead-Based Ligase Detection Reaction Assay Using a Molecular Beacon Probe for the Detection of Low-Abundance Point Mutations**

Sho Watanabe, Kenta Hagihara, Kazuhiko Tsukagoshi, and Masahiko Hashimoto\*

907

[dx.doi.org/10.1021/ac403572z](https://doi.org/10.1021/ac403572z)**Trace Detection of Specific Viable Bacteria Using Tetracycline-Tagged Bacteriophages**

Lina Wu, Tian Luan, Xiaoting Yang, Shuo Wang, Yan Zheng, Tianxun Huang, Shaobin Zhu, and Xiaomei Yan\*

913

[dx.doi.org/10.1021/ac4035828](https://doi.org/10.1021/ac4035828)**Refractive Index-Based Detection of Gradient Elution Liquid Chromatography using Chip-Integrated Microring Resonator Arrays**

James H. Wade and Ryan C. Bailey\*

920

[dx.doi.org/10.1021/ac403723t](https://doi.org/10.1021/ac403723t)**Real-Time Monitoring of Membrane-Protein Reconstitution by Isothermal Titration Calorimetry**

Nadin Jahnke, Oxana O. Krylova, Torben Hoomann, Carolyn Vargas, Sebastian Fiedler, Peter Pohl, and Sandro Keller\*

928

[dx.doi.org/10.1021/ac403634t](https://doi.org/10.1021/ac403634t)**Real-Time Monitoring of In Situ Gas-Phase H/D Exchange Reactions of Cations by Atmospheric Pressure Helium Plasma Ionization Mass Spectrometry (HePI-MS)**

Athula B. Attygalle,\* Rekha Gangam, and Julius Pavlov

936

[dx.doi.org/10.1021/ac403662w](https://doi.org/10.1021/ac403662w)**Dielectric Barrier Discharge Carbon Atomic Emission Spectrometer: Universal GC Detector for Volatile Carbon-Containing Compounds**

Bingjun Han, Xiaoming Jiang, Xiandeng Hou,\* and Chengbin Zheng\*

943

[dx.doi.org/10.1021/ac403676x](https://doi.org/10.1021/ac403676x)**Fluorescence Light Up Probe for Parallel G-Quadruplexes**

Bing Jin, Xin Zhang, Wei Zheng, Xiangjun Liu, Cui Qi, Fuyi Wang, and Dihua Shangguan\*

953

[dx.doi.org/10.1021/ac403682c](https://doi.org/10.1021/ac403682c)**Target-Triggered Quadratic Amplification for Label-Free and Sensitive Visual Detection of Cytokines Based on Hairpin Aptamer DNAzyme Probes**

Wenjiao Zhou, Xue Gong, Yun Xiang,\* Ruo Yuan, and Yaqin Chai

959

[dx.doi.org/10.1021/ac403736y](https://doi.org/10.1021/ac403736y)**Facile Preparation of Glycoprotein-Imprinted 96-Well Microplates for Enzyme-Linked Immunosorbent Assay by Boronate Affinity-Based Oriented Surface Imprinting**

Xiaodong Bi and Zhen Liu\*