

February 19, 2013 Volume 85, Issue 4 Pages 1965-2556 Order Print Issue

Editors' Highlights

In Situ, Real Time Monitoring of Surface Transformation: Ellipsometric Microscopy Imaging of Electrografting at Microstructured Gold Surfaces

Sorin Munteanu, Nicolas Garraud, Jean Paul Roger, Fabien Amiot, Jian Shi, Yong Chen, Catherine Combellas, and Frédéric Kanoufi pp 1965–1971

Publication Date (Web): January 28, 2013 (Editors' Highlight)

DOI: 10.1021/ac3034085

Section: Electrochemistry

Nanoscale Infrared Spectroscopy: Improving the Spectral Range of the Photothermal Induced Resonance Technique

Aaron M. Katzenmeyer, Vladimir Aksyuk, and Andrea Centrone pp 1972–1979

Publication Date (Web): January 30, 2013 (Editors' Highlight)

DOI: 10.1021/ac303620y

Section:

Optical, Electron, and Mass Spectroscopy and Other Related Properties

Letters to Analytical Chemistry

Chemical Mapping of Pharmaceutical Cocrystals Using Terahertz Spectroscopic Imaging

Danielle M. Charron, Katsuhiro Ajito, Jae-Young Kim, and Yuko Ueno pp 1980–1984

Publication Date (Web): January 28, 2013 (Letter)

DOI: 10.1021/ac302852n

Section:

Pharmaceutical Analysis

Automatic Identification of Emission Lines in Laser-Induced Plasma by Correlation of Model and Experimental Spectra Timur A. Labutin, Sergey M. Zaytsev, and Andrey M. Popov

pp 1985-1990

Publication Date (Web): January 23, 2013 (Letter)

DOI: 10.1021/ac303270q

Section:

Optical, Electron, and Mass Spectroscopy and Other Related Properties

BRAIN: A Universal Tool for High-Throughput Calculations of the Isotopic Distribution for Mass Spectrometry

Piotr Dittwald, Jürgen Claesen, Tomasz Burzykowski, Dirk Valkenborg, and Anna Gambin pp 1991–1994

Publication Date (Web): January 25, 2013 (Letter)

DOI: 10.1021/ac303439m

Section:

Biochemical Methods

Simultaneous Determination of 13 Fluoroquinolone and 22 Sulfonamide Residues in Milk by a Dual-Colorimetric Enzyme-Linked Immunosorbent Assay

Wenxiao Jiang, Zhanhui Wang, Ross C. Beier, Haiyang Jiang, Yongning Wu, and Jianzhong Shen

pp 1995-1999

Publication Date (Web): January 24, 2013 (Letter)

DOI: 10.1021/ac303606h

Section:

Food and Feed Chemistry

Simple and Accurate Quantification of Quantum Yield at the Single-Molecule/Particle Level

Juan Hu and Chun-yang Zhang

pp 2000-2004

Publication Date (Web): February 4, 2013 (Letter)

DOI: 10.1021/ac3036487

Section:

Optical, Electron, and Mass Spectroscopy and Other Related Properties

New Ionization Method for Analysis on Atmospheric Pressure Ionization Mass Spectrometers Requiring Only Vacuum and Matrix Assistance

Sarah Trimpin and Ellen D. Inutan pp 2005–2009

Publication Date (Web): February 2, 2013 (Letter)

DOI: 10.1021/ac303717j

Section:

Biochemical Methods

Aptamer-Based Cantilever Array Sensors for Oxytetracycline Detection

Hui Hou, Xiaojing Bai, Chunyan Xing, Ningyu Gu, Bailin Zhang, and Jilin Tang pp 2010–2014

Publication Date (Web): January 28, 2013 (Letter)

DOI: 10.1021/ac3037574

Section: Pharmacology

Technical Notes

Quantitative Fluorescence Spectroscopy in Turbid Media: A Practical Solution to the Problem of Scattering and Absorption

Yao Chen, Zeng-Ping Chen, Jing Yang, Jing-Wen Jin, Juan Zhang, and Ru-Qin Yu pp 2015–2020

Publication Date (Web): January 16, 2013 (Technical Note)

DOI: 10.1021/ac302815e

Section:

Biochemical Methods

Refined Magic-Angle Coil Spinning Resonator for Nanoliter NMR Spectroscopy: Enhanced Spectral Resolution

Alan Wong, Xiaonan Li, and Dimitris Sakellariou pp 2021–2026

Publication Date (Web): January 23, 2013 (Technical Note)

DOI: 10.1021/ac400188b

Section:

Biochemical Methods

Extended Linear Response for Bioanalytical Applications Using Multiple Enzymes

Vladimir Privman, Oleksandr Zavalov, and Aleksandr Simonian pp 2027–2031

Publication Date (Web): January 16, 2013 (Technical Note)

DOI: 10.1021/ac302998y

Section:

Micropipet Tip-Based Miniaturized Electrochemical Device Combined with Ultramicroelectrode and Its Application in Immobilization-Free Enzyme Biosensor

De-Wen Zhang, Jing-Xin Liu, Ji Nie, Ying-Lin Zhou, and Xin-Xiang Zhang pp 2032–2036

Publication Date (Web): January 20, 2013 (Technical Note)

DOI: 10.1021/ac303223u

Section:

Biochemical Methods

Characterization of Selenium Incorporation into Wheat Proteins by Two-Dimensional Gel Electrophoresis—Laser Ablation ICP MS followed by capillary HPLC—ICP MS and Electrospray Linear Trap Quadrupole Orbitrap MS

Juliusz Bianga, Espen Govasmark, and Joanna Szpunar pp 2037–2043

Publication Date (Web): January 18, 2013 (Technical Note)

DOI: 10.1021/ac3033799

Section:

Biochemical Methods

Generation of Chemical Concentration Gradients in Mobile Droplet Arrays via Fragmentation of Long Immiscible Diluting Plugs

Meng Sun and Siva A. Vanapalli pp 2044–2048

Publication Date (Web): January 10, 2013 (Technical Note)

DOI: 10.1021/ac303526y

Section:

Organic Analytical Chemistry

Articles

Surface Plasmon Resonance Imaging of Amyloid-β Aggregation Kinetics in the Presence of Epigallocatechin Gallate and Metals

Xin R. Cheng, Ben Y. H. Hau, Anthony J. Veloso, Sanela Martic, Heinz-Bernhard Kraatz, and Kagan Kerman pp 2049–2055

Publication Date (Web): December 31, 2012 (Article)

DOI: 10.1021/ac303181q

Section:

Biochemical Methods

Glycopeptide Identification Using Liquid-Chromatography-Compatible Hot Electron Capture Dissociation in a Radio-Frequency-Quadrupole Ion Trap

Naomi Manri, Hiroyuki Satake, Akihito Kaneko, Atsumu Hirabayashi, Takashi Baba, and Takeshi Sakamoto

pp 2056-2063

Publication Date (Web): January 14, 2013 (Article)

DOI: 10.1021/ac301834t

Section:

Biochemical Methods

Microtextured Substrates and Microparticles Used as in Situ Lenses for On-Chip Immunofluorescence Amplification

Hui Yang and Martin A. M. Gijs

pp 2064–2071

Publication Date (Web): January 10, 2013 (Article)

DOI: 10.1021/ac303471x

Section:

Biochemical Methods

Plasmonic Nanorice Antenna on Triangle Nanoarray for Surface-Enhanced Raman Scattering Detection of Hepatitis B Virus DNA

Ming Li, Scott K. Cushing, Hongyan Liang, Savan Suri, Dongling Ma, and Nianqiang Wu pp 2072–2078

Publication Date (Web): January 15, 2013 (Article)

DOI: 10.1021/ac303387a

Section:

Biochemical Methods

Automated Gas-Phase Purification for Accurate, Multiplexed Quantification on a Stand-Alone Ion-Trap Mass Spectrometer

Catherine E. Vincent, Jarred W. Rensvold, Michael S. Westphall, David J. Pagliarini, and Joshua J. Coon

pp 2079-2086

Publication Date (Web): October 9, 2012 (Article)

DOI: 10.1021/ac302156t

Section:

Biochemical Methods

Real Time in Situ Chemical Characterization of Submicrometer Organic Particles Using Direct Analysis in Real Time-Mass Spectrometry

Theodora Nah, ManNin Chan, Stephen R. Leone, and Kevin R. Wilson pp 2087–2095

Publication Date (Web): January 18, 2013 (Article)

DOI: 10.1021/ac302560c

Section:

Air Pollution and Industrial Hygiene

Label-Free Real-Time Detection of DNA Methylation Based on Quartz Crystal Microbalance Measurement

Jie Wang, Zhiqiang Zhu, and Hongwei Ma

pp 2096-2101

Publication Date (Web): January 29, 2013 (Article)

DOI: 10.1021/ac3026724

Section:

Biochemical Genetics

Amplified and in Situ Detection of Redox-Active Metabolite Using a Biobased Redox Capacitor

Eunkyoung Kim, Tanya Gordonov, William E. Bentley, and Gregory F. Payne pp 2102–2108

Publication Date (Web): January 13, 2013 (Article)

DOI: 10.1021/ac302703y

Section:

Biochemical Methods

Microscale Freeze-Drying with Raman Spectroscopy as a Tool for Process Development

Ari Kauppinen, Maunu Toiviainen, Jaakko Aaltonen, Ossi Korhonen, Kristiina Järvinen, Mikko Juuti, Riikka Pellinen, and Jarkko Ketolainen pp 2109–2116

Publication Date (Web): January 15, 2013 (Article)

DOI: 10.1021/ac3027349

Section:

Physical Organic Chemistry

Selected Protein Monitoring in Histological Sections by Targeted MALDI-FTICR In-Source Decay Imaging

David Calligaris, Rémi Longuespée, Delphine Debois, Daiki Asakawa, Andrei Turtoi, Vincent Castronovo, Agnès Noël, Virginie Bertrand, Marie-Claire De Pauw-Gillet, and Edwin De Pauw pp 2117–2126

Publication Date (Web): January 16, 2013 (Article)

DOI: 10.1021/ac302746t

Section:

Biochemical Methods

Linear and Nonlinear Regimes of Electrospray Signal Response in Analysis of Urine by Electrospray Ionization-High Field Asymmetric Waveform Ion Mobility Spectrometry-MS and Implications for Nontarget Quantification

Daniel G. Beach and Wojciech Gabryelski pp 2127–2134

Publication Date (Web): January 8, 2013 (Article)

DOI: 10.1021/ac3027542

Section:

Biochemical Methods

Detection of Metabolites of Trapped Humans Using Ion Mobility Spectrometry Coupled with Gas Chromatography

Wolfgang Vautz, Rafael Slodzynski, Chandrasekhara Hariharan, Luzia Seifert, Jürgen Nolte, Rita Fobbe, Stefanie Sielemann, Bolan C. Lao, Ran Huo, C. L. Paul Thomas, and Lars Hildebrand

pp 2135-2142

Publication Date (Web): December 18, 2012 (Article)

DOI: 10.1021/ac302752f

Section:

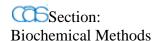
Biochemical Methods

Spectrophotometric-Dual-Enzyme-Simultaneous Assay in One Reaction Solution: Chemometrics and Experimental Models

Hongbo Liu, Xiaolan Yang, Lin Liu, Jizheng Dang, Yanling Xie, Yi Zhang, Jun Pu, Gaobo Long, Yuanli Li, Yonghua Yuan, Juan Liao, and Fei Liao pp 2143–2154

Publication Date (Web): January 10, 2013 (Article)

DOI: 10.1021/ac302786p



Rapid and in Vivo Quantification of Cellular Lipids in Chlorella vulgaris Using Near-Infrared Raman Spectrometry

Tsung-Hua Lee, Jo-Shu Chang, and Hsiang-Yu Wang

pp 2155-2160

Publication Date (Web): January 18, 2013 (Article)

DOI: 10.1021/ac3028118

Section:

Biochemical Methods

2D Correlation Analysis: Sequential Order Judging

He Huang, Xiaomin Ding, Chunlei Zhu, Zhipeng He, and Yibiao Yu

pp 2161–2168

Publication Date (Web): January 28, 2013 (Article)

DOI: 10.1021/ac3027355

Section:

History, Education, and Documentation

Evaluation and Optimization of Metabolome Sample Preparation Methods for Saccharomyces cerevisiae

Sooah Kim, Do Yup Lee, Gert Wohlgemuth, Hyong Seok Park, Oliver Fiehn, and Kyoung Heon Kim

pp 2169-2176

Publication Date (Web): January 4, 2013 (Article)

DOI: 10.1021/ac302881e

Section:

Biochemical Methods

Critical Examination of Gas-Phase Protein Conformation/Multimer Ion Formation by Electrospray Ion Mobility-Mass Spectrometry

Kent J. Gillig and Chung-Hsuan Chen

pp 2177–2182

Publication Date (Web): January 8, 2013 (Article)

DOI: 10.1021/ac3028849

Section:

Biochemical Methods

Silver Clusters as Both Chromophoric Reporters and DNA Ligands

Jeffrey T. Petty, Banabihari Giri, Ian C. Miller, David A. Nicholson, Orlin O. Sergev, Taylor M.

Banks, and Sandra P. Story

pp 2183-2190

Publication Date (Web): January 18, 2013 (Article)

DOI: 10.1021/ac303531y

Section:

Biochemical Methods

Factors Contributing to the Collision Cross Section of Polyatomic Ions in the Kilodalton to Gigadalton Range: Application to Ion Mobility Measurements

Thomas Wyttenbach, Christian Bleiholder, and Michael T. Bowers pp 2191–2199

Publication Date (Web): January 10, 2013 (Article)

DOI: 10.1021/ac3029008

Section:

Electric Phenomena

Direct Observation of Aminoglycoside–RNA Binding by Localized Surface Plasmon Resonance Spectroscopy

Ludmila Frolov, Andrew Dix, Yitzhak Tor, Alexander B. Tesler, Yulia Chaikin, Alexander Vaskevich, and Israel Rubinstein

pp 2200–2207

Publication Date (Web): January 31, 2013 (Article)

DOI: 10.1021/ac3029079

Section:

Biochemical Methods

Elastomeric Negative Acoustic Contrast Particles for Affinity Capture Assays

Kevin W. Cushing, Menake E. Piyasena, Nick J. Carroll, Gian C. Maestas, Beth Ann López, Bruce S. Edwards, Steven W. Graves, and Gabriel P. López pp 2208–2215

Publication Date (Web): January 21, 2013 (Article)

DOI: 10.1021/ac3029344

Section:

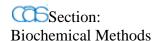
Biochemical Methods

Label-Free Impedance Detection of Cancer Cells

Anita Venkatanarayanan, Tia E. Keyes, and Robert J. Forster pp 2216–2222

Publication Date (Web): January 20, 2013 (Article)

DOI: 10.1021/ac302943q



Surface Enhanced Raman Scattering Traceable and Glutathione Responsive Nanocarrier for the Intracellular Drug Delivery

Shenfei Zong, Zhuyuan Wang, Hui Chen, Jing Yang, and Yiping Cui pp 2223–2230

Publication Date (Web): January 18, 2013 (Article)

DOI: 10.1021/ac303028v

Section: Pharmaceuticals

Single-Cell Lipidomics: Characterizing and Imaging Lipids on the Surface of Individual Aplysia californica Neurons with Cluster Secondary Ion Mass Spectrometry

Melissa K. Passarelli, Andrew G. Ewing, and Nicholas Winograd pp 2231–2238

Publication Date (Web): January 16, 2013 (Article)

DOI: 10.1021/ac303038j

Section:

Biochemical Methods

Advantages Available in the Application of the Semi-Integral Electroanalysis Technique for the Determination of Diffusion Coefficients in the Highly Viscous Ionic Liquid 1-Methyl-3-Octylimidazolium Hexafluorophosphate

Cameron L. Bentley, Alan M. Bond, Anthony F. Hollenkamp, Peter J. Mahon, and Jie Zhang pp 2239–2245

Publication Date (Web): December 18, 2012 (Article)

DOI: 10.1021/ac303042r

Section: Electrochemistry

Development of Galvanostatic Fourier Transform Electrochemical Impedance Spectroscopy

Kwang-Mo Nam, Dong-Hyup Shin, Namchul Jung, Moon G. Joo, Sangmin Jeon, Su-Moon Park, and Byoung-Yong Chang

pp 2246–2252

Publication Date (Web): January 20, 2013 (Article)

DOI: 10.1021/ac303108n



Specific and Efficient N-Propionylation of Histones with Propionic Acid N-Hydroxysuccinimide Ester for Histone Marks Characterization by LC-MS

Rijing Liao, Haiping Wu, Haibing Deng, Yanyan Yu, Min Hu, Huili Zhai, Pengyuan Yang, Shaolian Zhou, and Wei Yi

pp 2253-2259

Publication Date (Web): January 22, 2013 (Article)

DOI: 10.1021/ac303171h

Section:

Biochemical Methods

Wavelength-Resolved Optical Extinction Measurements of Aerosols Using Broad-Band Cavity-Enhanced Absorption Spectroscopy over the Spectral Range of 445–480 nm

Weixiong Zhao, Meili Dong, Weidong Chen, Xuejun Gu, Changjin Hu, Xiaoming Gao, Wei Huang, and Weijun Zhang

pp 2260-2268

Publication Date (Web): January 15, 2013 (Article)

DOI: 10.1021/ac303174n

Section:

Optical, Electron, and Mass Spectroscopy and Other Related Properties

Stabilization of ssRNA on Graphene Oxide Surface: An Effective Way to Design Highly Robust RNA Probes

Liang Cui, Zirong Chen, Zhi Zhu, Xiaoyan Lin, Xi Chen, and Chaoyong James Yang pp 2269–2275

Publication Date (Web): January 16, 2013 (Article)

DOI: 10.1021/ac303179z

Section:

Biochemical Methods

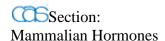
Multiparametric Homogeneous Method for Identification of Ligand Binding to G Protein-Coupled Receptors: Receptor– Ligand Binding and β-Arrestin Assay

Kari Kopra, Markus Kainulainen, Piia Mikkonen, Anita Rozwandowicz-Jansen, Pekka Hänninen, and Harri Härmä

pp 2276–2281

Publication Date (Web): January 18, 2013 (Article)

DOI: 10.1021/ac303215r



Label-Free and Ultrasensitive Electrochemical Detection of Nucleic Acids Based on Autocatalytic and Exonuclease III-Assisted Target Recycling Strategy

Shufeng Liu, Chunfeng Wang, Chengxin Zhang, Ying Wang, and Bo Tang pp 2282–2288

Publication Date (Web): January 16, 2013 (Article)

DOI: 10.1021/ac303225p

Section:

Biochemical Methods

Low-Flow Sheathless Capillary Electrophoresis—Mass Spectrometry for Sensitive Glycoform Profiling of Intact Pharmaceutical Proteins

Rob Haselberg, Gerhardus J. de Jong, and Govert W. Somsen pp 2289–2296

Publication Date (Web): January 16, 2013 (Article)

DOI: 10.1021/ac303158f

Section:

Pharmaceutical Analysis

Immobilized Nanorod Assemblies: Fabrication and Understanding of Large Area Surface-Enhanced Raman Spectroscopy Substrates

Nathan G. Greeneltch, Martin G. Blaber, Anne-Isabelle Henry, George C. Schatz, and Richard. P. Van Duyne

pp 2297–2303

Publication Date (Web): January 23, 2013 (Article)

DOI: 10.1021/ac303269w

Section:

Optical, Electron, and Mass Spectroscopy and Other Related Properties

Sensitive Detection of Peptide–Minicircle DNA Interactions by Surface Plasmon Resonance

Vítor M. Gaspar, Carla Cruz, João A. Queiroz, Chantal Pichon, Ilídio J. Correia, and Fani Sousa pp 2304–2311

Publication Date (Web): January 22, 2013 (Article)

DOI: 10.1021/ac303288x

Section:

Multiplex Plasmonic Sensor for Detection of Different Metal Ions Based on a Single Type of Gold Nanorod

Haowen Huang, Shenna Chen, Fang Liu, Qian Zhao, Bo Liao, Shoujun Yi, and Yunlong Zeng pp 2312–2319

Publication Date (Web): January 21, 2013 (Article)

DOI: 10.1021/ac303305j

Section:

Inorganic Analytical Chemistry

Detecting and Tracking Nosocomial Methicillin-Resistant Staphylococcus aureus Using a Microfluidic SERS Biosensor

Xiaonan Lu, Derrick R. Samuelson, Yuhao Xu, Hongwei Zhang, Shuo Wang, Barbara A. Rasco, Jie Xu, and Michael E. Konkel

pp 2320-2327

Publication Date (Web): January 18, 2013 (Article)

DOI: 10.1021/ac303279u

Section:

Biochemical Methods

In Vivo Solid-Phase Microextraction with in Vitro Calibration: Determination of Off-Flavor Components in Live Fish

Ziwei Bai, Alexandre Pilote, Pallab Kumer Sarker, Grant Vandenberg, and Janusz Pawliszyn pp 2328–2332

Publication Date (Web): January 18, 2013 (Article)

DOI: 10.1021/ac3033245

Section:

Food and Feed Chemistry

Portable Capillary Electrophoresis Instrument with Automated Injector and Contactless Conductivity Detection

Thanh Duc Mai, Thi Thanh Thuy Pham, Hung Viet Pham, Jorge Sáiz, Carmen García Ruiz, and Peter C. Hauser pp 2333–2339

Publication Date (Web): January 22, 2013 (Article)

DOI: 10.1021/ac303328g

Section:

Inorganic Analytical Chemistry

Development of a Solid-Phase Receptor-Based Assay for the Detection of Cyclic Imines Using a Microsphere-Flow Cytometry System

Laura P. Rodríguez, Natalia Vilariño, Jordi Molgó, Rómulo Aráoz, M. Carmen Louzao, Palmer Taylor, Todd Talley, and Luis M. Botana

pp 2340-2347

Publication Date (Web): January 23, 2013 (Article)

DOI: 10.1021/ac3033432

Section:

Food and Feed Chemistry

Dynamics Displayed by Energetic C_{60} Bombardment of Metal Overlayers on an Organic Substrate

Paul E. Kennedy, Zbigniew Postawa, and Barbara J. Garrison pp 2348–2355

Publication Date (Web): January 9, 2013 (Article)

DOI: 10.1021/ac303348y

Section:

General Physical Chemistry

Wide Field-of-View On-Chip Talbot Fluorescence Microscopy for Longitudinal Cell Culture Monitoring from within the Incubator

Chao Han, Shuo Pang, Danielle V. Bower, Patrick Yiu, and Changhuei Yang pp 2356–2360

Publication Date (Web): January 28, 2013 (Article)

DOI: 10.1021/ac303356v

Section:

Biochemical Methods

Probing the Interactions between Boronic Acids and *cis*-Diol-Containing Biomolecules by Affinity Capillary Electrophoresis

Chenchen Lü, Hengye Li, Heye Wang, and Zhen Liu pp 2361–2369

Publication Date (Web): January 28, 2013 (Article)

DOI: 10.1021/ac3033917

Section:

Real Time Monitoring of On-Chip Coenzyme Regeneration with SPR and DPI

Xiaoyi Feng, Fei Gao, Peiyong Qin, Guanghui Ma, Zhiguo Su, Jia Ge, Ping Wang, and Songping Zhang

pp 2370-2376

Publication Date (Web): January 22, 2013 (Article)

DOI: 10.1021/ac303392a

Section: Enzymes

In-Line Multipoint Near-Infrared Spectroscopy for Moisture Content Quantification during Freeze-Drying

Ari Kauppinen, Maunu Toiviainen, Ossi Korhonen, Jaakko Aaltonen, Kristiina Järvinen, Janne Paaso, Mikko Juuti, and Jarkko Ketolainen pp 2377–2384

Publication Date (Web): January 28, 2013 (Article)

DOI: 10.1021/ac303403p

Section:

Inorganic Analytical Chemistry

Investigation of Reaction Mechanisms of Drug Degradation in the Solid State: A Kinetic Study Implementing Ultrahigh-Performance Liquid Chromatography and High-Resolution Mass Spectrometry for Thermally Stressed Thyroxine

Volker Neu, Chris Bielow, Peter Schneider, Knut Reinert, Hermann Stuppner, and Christian G. Huber

pp 2385-2390

Publication Date (Web): January 12, 2013 (Article)

DOI: 10.1021/ac303404e

Section: Pharmaceuticals

On-Chip Assessment of the Protein-Release Profile from 3D Hydrogel Arrays

Mariana B. Oliveira and João F. Mano

pp 2391–2396 **Publication Date (Web):** January 29, 2013 (Article)

DOI: 10.1021/ac303405x

Section:

Immunosensors for Estradiol and Ethinylestradiol Based on New Synthetic Estrogen Derivatives: Application to Wastewater Analysis

Hussein Kanso, Lise Barthelmebs, Nicolas Inguimbert, and Thierry Noguer pp 2397–2404

Publication Date (Web): January 16, 2013 (Article)

DOI: 10.1021/ac303406c

Section: Toxicology

Practical Approaches to Incurred Sample LC-MS/MS Reanalysis: Confirming Unexpected Results

Wenkui Li, Hui Lin, Jimmy Flarakos, and Francis L. S. Tse pp 2405–2413

pp 2403–2413

Publication Date (Web): January 30, 2013 (Article)

DOI: 10.1021/ac3034135

Section:

Biochemical Methods

Electron Transfer Properties of Dual Self-Assembled Architectures Based on Specific Recognition and Electrostatic Driving Forces: Its Application To Control Substrate Inhibition in Horseradish Peroxidase-Based Sensors

M. Lorena Cortez, Diego Pallarola, Marcelo Ceolín, Omar Azzaroni, and Fernando Battaglini pp 2414–2422

Publication Date (Web): January 20, 2013 (Article)

DOI: 10.1021/ac303424t

Section:

Biochemical Methods

Integrated Proteomic Analysis of Major Isoaspartyl-Containing Proteins in the Urine of Wild Type and Protein l-Isoaspartate *O*-Methyltransferase-Deficient Mice

Shujia Dai, Wenqin Ni, Alexander N. Patananan, Steven G. Clarke, Barry L. Karger, and Zhaohui Sunny Zhou

pp 2423-2430

Publication Date (Web): January 17, 2013 (Article)

DOI: 10.1021/ac303428h

Section:

G-quadruplex-Based Fluorescent Assay of S1 Nuclease Activity and K⁺

Zhixue Zhou, Jinbo Zhu, Libing Zhang, Yan Du, Shaojun Dong, and Erkang Wang pp 2431–2435

Publication Date (Web): January 14, 2013 (Article)

DOI: 10.1021/ac303440d

Section: Enzymes

Universal Chemiluminescence Flow-Through Device Based on Directed Self-Assembly of Solid-State Organic Chromophores on Layered Double Hydroxide Matrix

Zhihua Wang, Xu Teng, and Chao Lu pp 2436–2442

Publication Date (Web): January 18, 2013 (Article)

DOI: 10.1021/ac303487b

Section:

Biochemical Methods

Localized Electrochemical Impedance Spectroscopy: Visualization of Spatial Distributions of the Key Parameters Describing Solid/Liquid Interfaces

Aliaksandr S. Bandarenka, Kathrin Eckhard, Artjom Maljusch, and Wolfgang Schuhmann pp 2443–2448

Publication Date (Web): January 20, 2013 (Article)

DOI: 10.1021/ac303490t

Section:

Electric Phenomena

Single-Molecule Studies of Intrinsically Disordered Proteins Using Solid-State Nanopores

Deanpen Japrung, Jakob Dogan, Kevin J. Freedman, Achim Nadzeyka, Sven Bauerdick, Tim Albrecht, Min Jun Kim, Per Jemth, and Joshua B. Edel pp 2449–2456

Publication Date (Web): January 17, 2013 (Article)

DOI: 10.1021/ac3035025

Section:

General Biochemistry

Correlation of Cocaine Hydrochloride Samples Seized in Brazil Based on Determination of Residual Solvents: An

Innovative Chemometric Method for Determination of Linkage Thresholds

Jorge J. Zacca, Tatiane S. Grobério, Adriano O. Maldaner, Maurício L. Vieira, and Jez W. B.

Braga

pp 2457-2464

Publication Date (Web): January 18, 2013 (Article)

DOI: 10.1021/ac3034147

Section: Toxicology

An Automated High-Throughput Counting Method for Screening Circulating Tumor Cells in Peripheral Blood

Mengxia Zhao, Perry G. Schiro, Jason S. Kuo, Karen M. Koehler, Daniel E. Sabath, Viorica Popov, Qinghua Feng, and Daniel T. Chiu

pp 2465-2471

Publication Date (Web): February 6, 2013 (Article)

DOI: 10.1021/ac400193b

Section:

Biochemical Methods

Half Antibody Fragments Improve Biosensor Sensitivity without Loss of Selectivity

Harsh Sharma and Raj Mutharasan

pp 2472–2477

Publication Date (Web): January 28, 2013 (Article)

DOI: 10.1021/ac3035426

Section:

Biochemical Methods

An Approach for Triplex-Isobaric Peptide Termini Labeling (Triplex-IPTL)

Christian J. Koehler, Magnus Ø. Arntzen, Gustavo Antonio de Souza, and Bernd Thiede pp 2478–2485

Publication Date (Web): January 14, 2013 (Article)

DOI: 10.1021/ac3035508

Section:

Biochemical Methods

Quantification of Iron in Seawater at the Low Picomolar Range Based on Optimization of

Bromate/Ammonia/Dihydroxynaphtalene System by Catalytic Adsorptive Cathodic Stripping Voltammetry

Luis Miguel Laglera, Juan Santos-Echeandía, Salvatore Caprara, and Damiano Monticelli pp 2486–2492

Publication Date (Web): January 23, 2013 (Article)

DOI: 10.1021/ac303621q

Section:

Water

Parallel Screening of Electrocatalyst Candidates Using Bipolar Electrochemistry

Stephen E. Fosdick, Sean P. Berglund, C. Buddie Mullins, and Richard M. Crooks pp 2493–2499

Publication Date (Web): February 6, 2013 (Article)

DOI: 10.1021/ac303581b

Section: Electrochemistry

Electrochemistry in an Acoustically Levitated Drop

Edward T. Chainani, Khanh T. Ngo, and Alexander Scheeline pp 2500–2506

Publication Date (Web): January 27, 2013 (Article)

DOI: 10.1021/ac3035162

Section: Electrochemistry

Immobilization Method to Preserve Enzyme Specificity in Biosensors: Consequences for Brain Glutamate Detection

Natalia Vasylieva, Caroline Maucler, Anne Meiller, Henry Viscogliosi, Thomas Lieutaud, Daniel Barbier, and Stéphane Marinesco

pp 2507–2515

Publication Date (Web): January 28, 2013 (Article)

DOI: 10.1021/ac3035794

Section:

Biochemical Methods

Competitive Coordination of Cu²⁺ between Cysteine and Pyrophosphate Ion: Toward Sensitive and Selective Sensing of Pyrophosphate Ion in Synovial Fluid of Arthritis Patients

Jingjing Deng, Ping Yu, Lifen Yang, and Lanqun Mao pp 2516–2522

Publication Date (Web): January 22, 2013 (Article)

DOI: 10.1021/ac303698p

Section:

Biochemical Methods

NASR: An Effective Approach for Simultaneous Noise and Artifact Suppression in NMR Spectroscopy

Bin Jiang, Fan Luo, Yiming Ding, Peng Sun, Xu Zhang, Ling Jiang, Conggang Li, Xi-an Mao, Daiwen Yang, Chun Tang, and Maili Liu

pp 2523-2528

Publication Date (Web): January 22, 2013 (Article)

DOI: 10.1021/ac303726p

Section:

Biochemical Methods

Fabrication of Transferrin Functionalized Gold Nanoclusters/Graphene Oxide Nanocomposite for Turn-On Near-Infrared Fluorescent Bioimaging of Cancer Cells and Small Animals

Yong Wang, Jia-Tong Chen, and Xiu-Ping Yan

pp 2529–2535

Publication Date (Web): January 21, 2013 (Article)

DOI: 10.1021/ac303747t

Section:

Biochemical Methods

Fluorescence Quenching of Graphene Oxide Integrating with the Site-Specific Cleavage of the Endonuclease for Sensitive and Selective MicroRNA Detection

Yunqiu Tu, Wen Li, Ping Wu, Hui Zhang, and Chenxin Cai pp 2536–2542

Publication Date (Web): January 15, 2013 (Article)

DOI: 10.1021/ac303772m

Section:

Biochemical Methods

Real-Time Detection of Transcription Factors Using Target-Converted Helicase-Dependent Amplification Assay with Zero-Background Signal

Anping Cao and Chun-yang Zhang pp 2543–2547

Publication Date (Web): January 15, 2013 (Article)

DOI: 10.1021/ac400010r

Section:

Biochemical Methods

High-Throughput Secretomic Analysis of Single Cells to Assess Functional Cellular Heterogeneity

Yao Lu, Jonathan J. Chen, Luye Mu, Qiong Xue, Yu Wu, Pei-Hsun Wu, Jie Li, Alexander O. Vortmeyer, Kathryn Miller-Jensen, Denis Wirtz, and Rong Fan pp 2548–2556

Publication Date (Web): January 22, 2013 (Article)

DOI: 10.1021/ac400082e

Section: