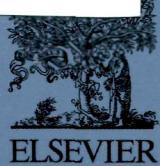


NU
A 53/3



VOLUME 786 5 JULY 2013 ISSN 0003-2670

ANALYTICA CHIMICA ACTA

AN INTERNATIONAL JOURNAL DEVOTED TO ALL BRANCHES OF ANALYTICAL CHEMISTRY

EDITORS:

RICHARD P. BALDWIN

NEIL W. BARNETT

WOLFGANG BUCHBERGER

LUTGARDE BUYDENS

PURNENDU K. DASGUPTA

ULRICH J. KRULL

JAMES P. LANDERS

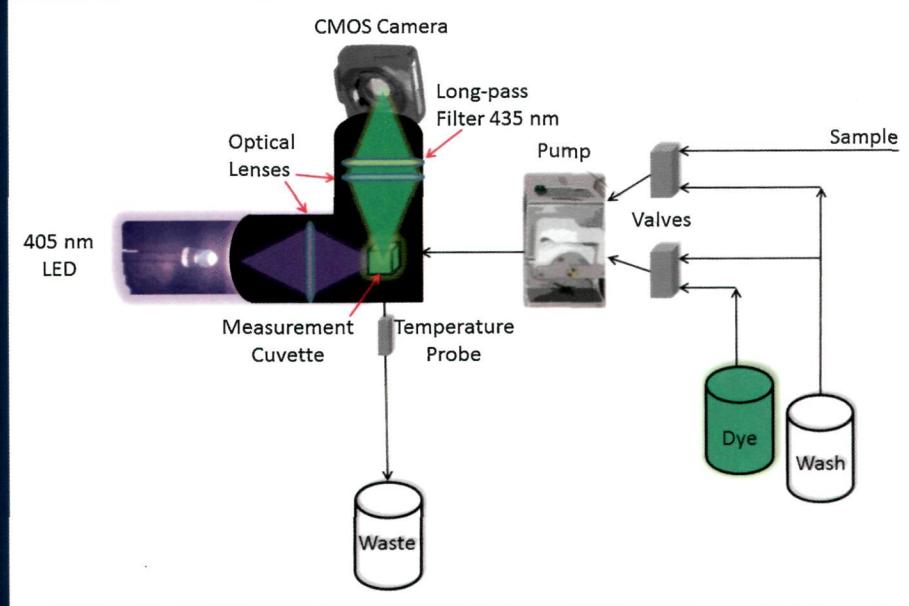
LIANG LI

JANUSZ PAWLISZYN

PAUL J. WORSFOLD

REVIEW EDITOR:

MANUEL MIRÓ

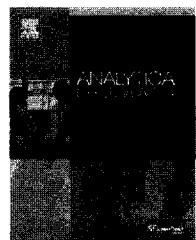


Featured Article

A potential tool for high-resolution monitoring of ocean acidification

Aron Hakonen, Leif G. Anderson, Johan Engelbrektsson, Stefan Hulth and Bengt Karlson

(Published on pp. 1–7 of this issue)

available at www.sciencedirect.com**SciVerse ScienceDirect**journal homepage: www.elsevier.com/locate/aca

CONTENTS

Abstracted/indexed in: Aluminium Abstracts; Anal. Abstr.; Biol. Abstr.; BIOSIS; Chem. Abstr.; Curr. Contents Phys. Chem. Earth Sci.; Engineered Materials Abstracts; Excerpta Medica; Index Med.; Life Sci.; Mass Spectrum. Bull.; Material Business Alerts; Metals Abstracts; Sci. Citation Index. Full texts are incorporated in CJELSEVIER, a file in the Chemical Journals Online database available on STN International. Also covered in the abstract and citation database SciVerse SCOPUS®. Full text available on SciVerse ScienceDirect®.

Featured article

A potential tool for high-resolution monitoring of ocean acidification

- A. Hakonen (Västra Frölunda, Sweden and Kemivägen, Sweden), L.G. Anderson (Kemivägen, Sweden), J. Engelbrektsson (Borås, Sweden), S. Hulth (Kemivägen, Sweden) and B. Karlson (VästraFrölunda, Sweden) 1

Atomic Spectrometry

Liquid phase microextraction strategies combined with total reflection X-ray spectrometry for the determination of low amounts of inorganic antimony species in waters

- E. Marguí, M. Sagué (Girona, Spain), I. Queralt (Barcelona, Spain) and M. Hidalgo (Girona, Spain) 8

Electrochemical sensor based on chlorohemin modified molecularly imprinted microgel for determination of 2,4-dichlorophenol

- J. Zhang (Nanjing, PR China and Guiyang, PR China), J. Lei, H. Ju (Nanjing, PR China) and C. Wang (Guiyang, PR China) 16

Electrochemistry

Determination of amino thiols by liquid chromatography with amperometric detection at a silver electrode: Application to white wines

- A. Sarakbi, Z. Aydogmus, A. Dago, D. Mertens, J.-Y. Dewert and J.-M. Kauffmann (Brussels, Belgium) 22

Comparative studies on zirconia and graphene composites obtained by one-step and stepwise electrodeposition for deoxyribonucleic acid sensing

- T. Yang, X. Guo, Q. Kong, R. Yang, Q. Li and K. Jiao (Qingdao, China) 29

An ultrasensitive iron(III)-complex based hydrogen peroxide electrochemical sensor based on a nonelectrocatalytic mechanism

- P. Li, Y. Ding, Z. Lu, Y. Chen, Y. Zhou, Y. Tang, C. Cai and T. Lu (Nanjing, PR China) 34

Application of hot platinum microelectrodes for determination of flavonoids in flow injection analysis and capillary electrophoresis

- J. Magnuszewska and T. Krogulec (Bialystok, Poland) 39

Extraction and Sample Handling

Microwave-assisted extraction combined with gel permeation chromatography and silica gel cleanup followed by gas chromatography-mass spectrometry for the determination of organophosphorus flame retardants and plasticizers in biological samples

- Y. Ma, K. Cui, F. Zeng, J. Wen, H. Liu, F. Zhu, G. Ouyang, T. Luan and Z. Zeng (Guangzhou, China) 47

Analysis of heterocyclic amines in hair by on-line in-tube solid-phase microextraction coupled with liquid chromatography-tandem mass spectrometry

- H. Kataoka, T. Inoue, K. Saito, H. Kato and K. Masuda (Nishigawara, Japan) 54

Evaluation and optimization of solid adsorbents for the sampling of gaseous methylated mercury species

- P.A. Baya, J.L. Hollinsworth and H. Hintelmann (Peterborough, Canada) 61

Flow analysis

Determination of acetaldehyde in saliva by gas-diffusion flow injection analysis

- A.N. Ramdzan, P.J. Mornane, M.J. McCullough (Parkville, Australia), W. Mazurek (Port Melbourne, Australia) and S.D. Kolev (Parkville, Australia) 70

Sequential injection immunoassay for human bone morphogenic protein-7 using an immunoreactor immobilized with anti-human bone morphogenic protein-7 antibody-CdSe/ZnS quantum dot conjugates

- C.-K. Kim, H.D. Duong and J. I1 Rhee (GwangJu, Republic of Korea) 78

Mass Spectrometry

Compressed matrix thin film (CMTF)-assisted laser desorption ionization mass spectrometric analysis L. Huang, X. Xiao, Y. Xie, H. Kageruka, Y. Zhou, F. Deng and H. Zhong (Hubei, PR China)	85
Compound-specific stable carbon isotope ratios of phenols and nitrophenols derivatized with N,O-bis(trimethylsilyl) trifluoroacetamide S. Irei, J. Rudolph and L. Huang (Ontario, Canada)	95

A matrix-assisted laser desorption/ionization tandem mass spectrometry method for direct screening of small molecule mixtures against an aminoglycoside kinase A.M.E. Smith, E. Awuah, A. Capretta and J.D. Brennan (Ontario, Canada)	103
--	-----

Sensors and Bioselective Reagents

Fluorescence detection of glutathione reductase activity based on deoxyribonucleic acid-templated silver nanoclusters S. Zhu (Jilin, China; Shandong, China and Beijing, China), X.-e. Zhao (Shandong, China), W. Zhang, Z. Liu (Jilin, China), W. Qi (Jilin, China and Beijing, China), S. Anjum (Jilin, China and Bahawalpur, Pakistan) and G. Xu (Jilin, China)	111
---	-----

Terbium fluorescence as a sensitive, inexpensive probe for UV-induced damage in nucleic acids A.F. El-Yazbi and G.R. Lopnow (Edmonton, Canada)	116
---	-----

Development of a colorimetric microfluidic pH sensor for autonomous seawater measurements V.M.C. Rérolle, C.F.A. Floquet, A.J.K. Harris, M.C. Mowlem (Southampton, UK), R.R.G.J. Bellerby (Bergen, Norway) and E.P. Achterberg (Southampton, UK)	124
---	-----

Single domain antibody-quantum dot conjugates for ricin detection by both fluoroimmunoassay and surface plasmon resonance G.P. Anderson (Washington, DC, USA), R.H. Glaven (Alexandria, VA, USA), W.R. Algar (Washington, DC, USA and Fairfax, VA, USA), K. Susumu (Washington, DC, USA and Annapolis Junction, MD, USA), M.H. Stewart, I.L. Medintz and E.R. Goldman (Washington, DC, USA)	132
--	-----

A novel ratiometric sensor for the fast detection of palladium species with large red-shift and high resolution both in aqueous solution and solid state L. Cui, W. Zhu, Y. Xu and X. Qian (Shanghai, China)	139
---	-----

Ratiometric fluorescence detection of mercuric ion based on the nanohybrid of fluorescence carbon dots and quantum dots B. Cao, C. Yuan, B. Liu, C. Jiang, G. Guan (Hefei, China) and M.-Y. Han (Hefei, China and Singapore)	146
---	-----

Surface-enhanced Raman scattering molecular sentinel nanoprobes for viral infection diagnostics H.-N. Wang, A.M. Fales, A.K. Zaas, C.W. Woods, T. Burke, G.S. Ginsburg and T. Vo-Dinh (Durham, NC, USA)	153
--	-----

Separation Methods

A chip-type thin-layer electrochemical cell coupled with capillary electrophoresis for online separation of electrode reaction products J.-B. He, T. Cui, W.-W. Zhang and N. Deng (Hefei, China)	159
---	-----