

分析化学

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分析化学

第41卷第2期 2013年2月

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第五届国际微化学与微系统学术会议暨第八届全国微全分析系统学术会议暨第三届全国微纳尺度生物分离分析学术会议(厦门)(173)、“第十四届国际电分析化学会议”的通知(277)

书刊征订

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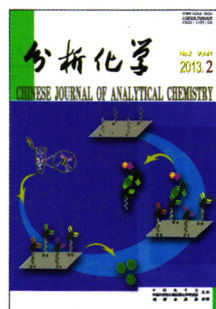
广告目录

通用电气(中国)医疗集团生命科学部(封二) 岛津国际贸易(上海)有限公司(文前1) 岛津国际贸易(上海)有限公司(文前2) 岛津技迹(上海)商贸有限公司(文前3) 安捷伦科技有限公司(文前4) 安捷伦科技有限公司(文前5) 德国耶拿分析仪器有限公司(文前6) 成都超纯科技有限公司(文前7) 大连依利特分析仪器有限公司(文前8) 青岛盛瀚仪器有限公司(文前9) 北京浩天晖科贸有限公司(文前10) 北京浩天晖科贸有限公司(文前11) 信息仪器网(文前12) 订阅《分析化学》(文前13) 沃特世科技(上海)有限公司(目录前12) 赛默飞世尔科技(中国)有限公司(中插1) 赛默飞世尔科技(中国)有限公司(中插2) 订阅《分析化学》(中插3) 北京氩普北分气体工业有限公司(中插4) 北京氩普北分气体工业有限公司(中插5) 北京莱伯泰科仪器有限公司(中插6) 北京海光仪器公司(封三) 北京吉天仪器有限公司(封底)

(本期责任编辑:王重洋 编排、制图:潘文革)

* 联系人

★ 该篇文章的英文电子版由 Elsevier 出版社在 ScienceDirect 上出版(<http://www.sciencedirect.com/science/journal/18722040>)

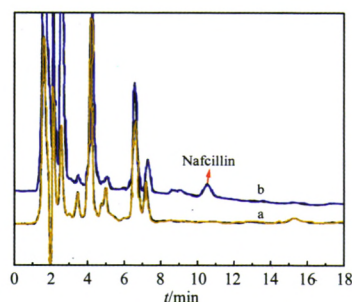


The cover image presents a new method of immobilizing antibody probes in immunochips. On page 199, SHA et al demonstrate a strategy for forming protein array which was developed by immobilizing antibody via the guide of DNA hybridization. Reversal of formed protein array was achieved by dissociation of DNA strands.

Invited Papers

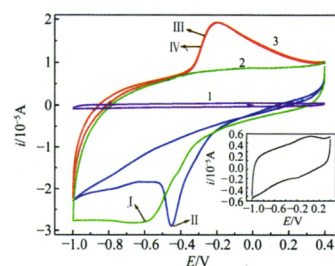
★ Preparation and Application of Core-Shell Structural Carbon Nanotubes-Molecularly Imprinted Composite Material for Determination of Nafcillin in Egg Samples

LIU Yui-Xing, JIAN Gui-Qin, HE Xi-Wen, CHEN Lang-Xing*, ZHANG Yu-Kui
Chinese J. Anal. Chem., 2013, 41(2): 161-166



Electrochemical Study of Ferritin on SWNTs-CTAB Modified Electrode

XIE Fen, YANG Li-Jun, LIU Nuo-Ya, XIONG Hua-Yu, WEN Wei, ZHANG Xiu-Hua, WANG Sheng-Fu*
Chinese J. Anal. Chem., 2013, 41(2): 167-173



Development of Graphene-based Optical Biosensor

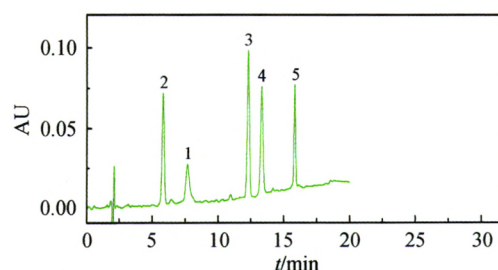
GAO Yuan, LI Yan, SU Xing-Guang*
Chinese J. Anal. Chem., 2013, 41(2): 174-180

This article is focused on the applications of graphene-based or graphene oxide-based optical biosensor, especially giving a detailed overview of fluorescence resonance energy transfer (FRET) and colorimetry biosensors. The underlying strategies and sensor characteristics were extensively discussed.

Study on Retention Equation for Protein in Reversed Phase Liquid Chromatography

DING Ling, DONG Jun, XIAO Yuan-Sheng,
ZHANG Xiu-Li, XUE Xing-Ya,
LIANG Xin-Miao*

Chinese J. Anal. Chem., 2013, 41(2): 181-186

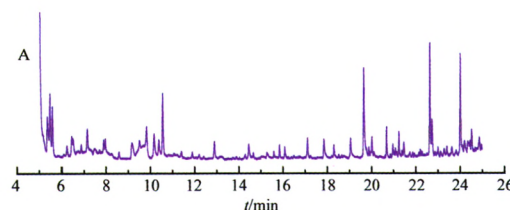


Scientific Papers

Determination of *Listeria Monocytogenes* in Agricultural Products by High Resolution Pyrolysis Gas Chromatography-Mass Spectrometry

SU Jing, LI Xiao-Jing, WEI Yan-Yan,
LIU Ting, GUO Ai-Ling*

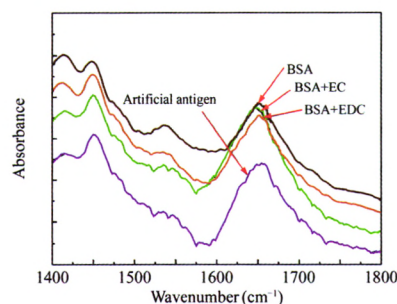
Chinese J. Anal. Chem., 2013, 41(2): 187-192



Analysis and Characterization of a Novel Artificial Antigen of Ethyl Carbamate

GUO Ming*, ZHOU Wei, ZHOU Shan, JING Jiao,
YANG Ping

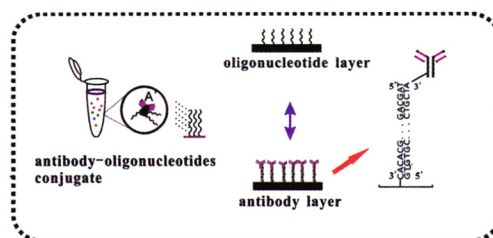
Chinese J. Anal. Chem., 2013, 41(2): 193-198



★ A New Method for Immobilizing Antibody Probes in Immuno-chips Based on DNA Hybridization

SHA Sha, YIN Yun, GAO Xiao-Lian,
HUANG Zhuang-Rong, YU Ting,
ZHENG Xiao-Dong*

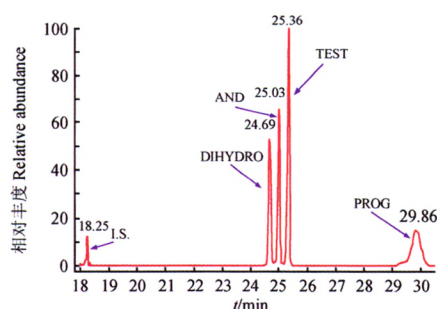
Chinese J. Anal. Chem., 2013, 41(2): 199-204



★ Simultaneous Determination of Androgens and Progesterone in Surface Water and Sediment by Gas Chromatography-Mass Spectrometry

JIN Wei, HUANG Bin, WANG Bin,
WANG Dao-Wei, ZHAO Shi-Min, PAN Xue-Jun*

Chinese J. Anal. Chem., 2013, 41(2): 205-209

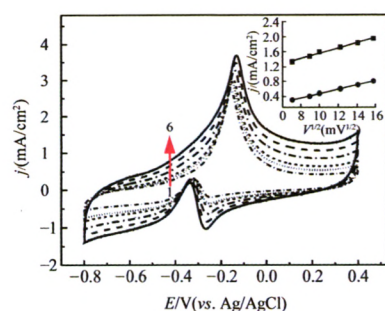


★ **Electrospun Palladium Nanoparticle-Loaded Carbon Nanofiber for Methanol Electro-oxidation**

GUO Qiao-Hui, HUANG Jian-She,

YOU Tian-Yan*

Chinese J. Anal. Chem., 2013, 41(2): 210–214



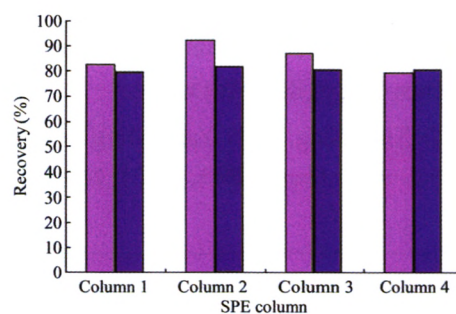
Residue Determination of Epoxiconazole, Indoxacarb and Difenconazole in Tea, Tea Infusion and Soil using Ultra High Performance Liquid Chromatography Coupled with Tandem Mass Spectrometry

ZHANG Xin-Zhong*, LUO Feng-Jian,

CHEN Zong-Mao*, LIU Guang-Ming,

LOU Zheng-Yun, WANG Fang, WU Lu-Chao

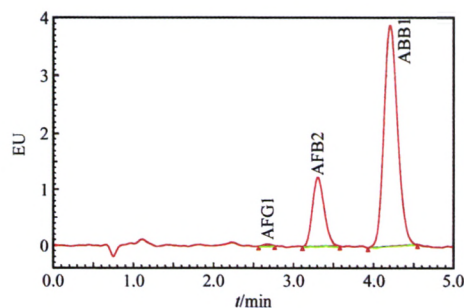
Chinese J. Anal. Chem., 2013, 41(2): 215–222



Rapid Analysis of Aflatoxins (B₁, B₂, G₁, G₂) in Grain by Immuno-affinity Clear-up Column and Ultra Performance Liquid Chromatography without Derivation

XIE Gang, WANG Song-Xue*, ZHANG Yan

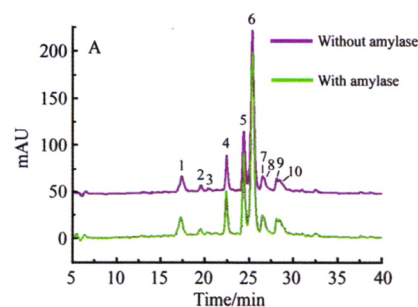
Chinese J. Anal. Chem., 2013, 41(2): 223–228



Characterization of α -Amylase Binding Agents from Hawthorn Leaf Using Ultrafiltration and Liquid Chromatography Tandem Mass Spectrometry

TAO Yi, CHEN Zhui, ZHANG Yu-Feng*

Chinese J. Anal. Chem., 2013, 41(2): 229–234



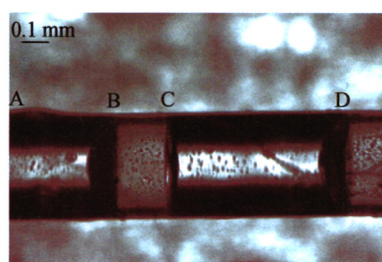
★ **Composition Determination of Single Fluid Inclusions in Salt Minerals by Laser Ablation ICP-MS**

SUN Xiao-Hong, HU Ming-Yue*, LIU Cheng-Lin,

JIAO Peng-Cheng, MA Li-Chun, WANG Xin,

ZHAN Xiu-Chun

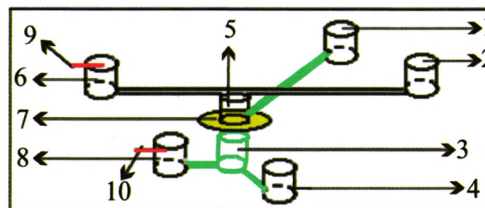
Chinese J. Anal. Chem., 2013, 41(2): 235–241



**Application of Eletrodialysis to Enrich DNA
Online in Microchip**

HUANG Hua-Bin, ZHUANG Zhi-Xia*, HU Jia,
YANG Chao-Yong, WANG Xiao-Ru

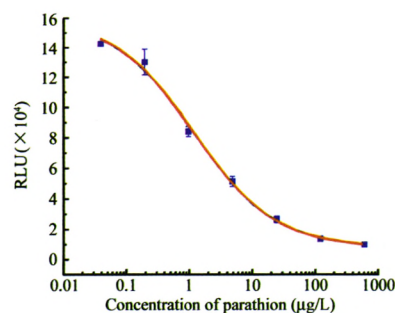
Chinese J. Anal. Chem., 2013, 41(2): 242-246



**Development of an Indirect Competitive Chemi-
luminescence Enzyme-linked Immunoassay for
Parathion**

DENG Hao, KONG De-Bin, YANG Jin-Yi,
XU Zhen-Lin, SHEN Yu-Dong,
YANG Xing-Xing, SUN Yuan-Ming*

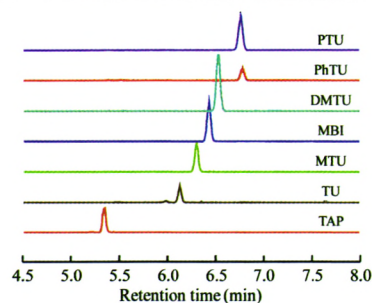
Chinese J. Anal. Chem., 2013, 41(2): 247-252



**Determination of Six Thyroid Antagonists
Residues in Milk by Liquid Chromatography-
Tandem Mass Spectrometry**

QIU Yuan-Jin, LIN Yong-Hui*, YANG Fang,
ZHANG Qiong, SU Zhi-Jiao

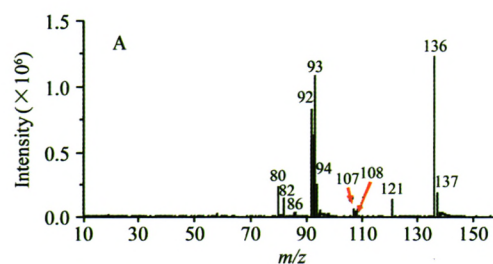
Chinese J. Anal. Chem., 2013, 41(2): 253-257



**Determination of Volatile Organic Compounds
Emissions of Plants by On-line Mass
Spectrometer**

GAO Wei, TAN Guo-Bin, HONG Yi,
HUANG Zheng-Xu*, LI Mei, NIAN Hui-Qing,
DONG Jun-Guo, FU Zhong, CHENG Ping,
ZHOU Zhen*

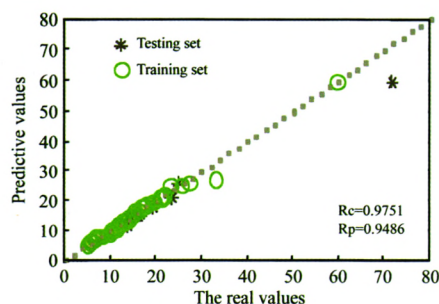
Chinese J. Anal. Chem., 2013, 41(2): 258-262



**Noninvasive Measurement of Serum Bilirubin
Employing Near-Infrared Spectroscopy**

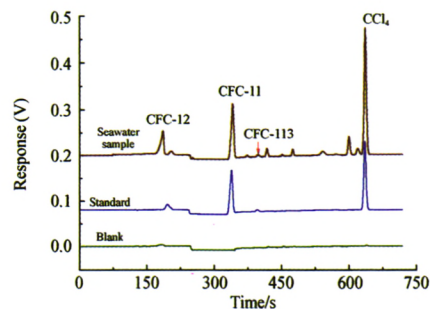
LI Gang, LI Zhe, WANG Meng-Jun, LIN Ling,
ZHANG Bao-Ju*

Chinese J. Anal. Chem., 2013, 41(2): 263-267



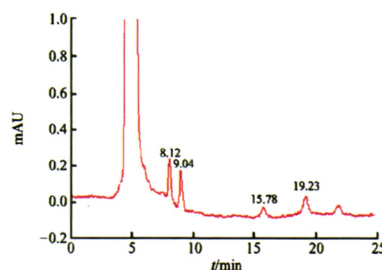
★ **A Purge and Trap-Gas Chromatographic Method for Determination of Chlorofluorocarbons in Seawater**

CAI Ming-Gang*, HUANG Peng,
ZHANG Mi-Ming, LI Wen-Quan
Chinese J. Anal. Chem., 2013, 41(2): 268-272



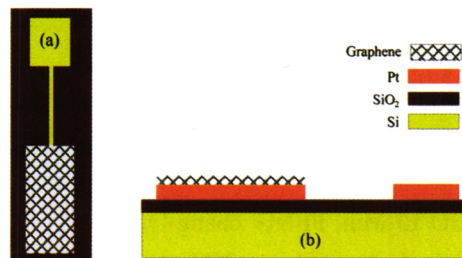
Study on the Form of Tetracycline Antibiotics in Aquatic Products and Its Analytical Application

GAO Fu-Kai, CHEN Lu-Si, LIU Yong-Ming*,
LIU Zhen-Bo, LI Gui-Zhi*
Chinese J. Anal. Chem., 2013, 41(2): 273-277



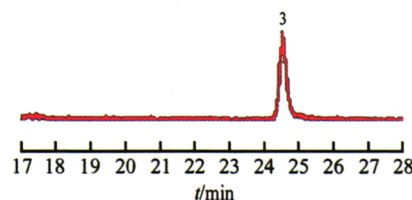
Determination of Trace Cadmium and Lead in Water Based on Graphene-modified Platinum Electrode Sensor

TANG Feng-Jie, ZHANG Feng, JIN Qing-Hui*,
ZHAO Jian-Long
Chinese J. Anal. Chem., 2013, 41(2): 278-282



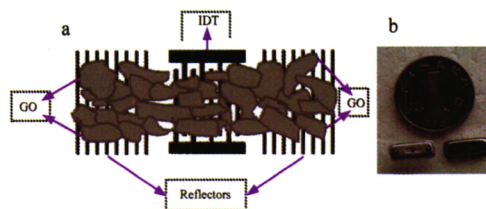
Simultaneous Determination of Chloramphenicol, Melamine, Metronidazole, Ronidazole in Infant Milk Powder by LC-MS/MS

WANG Hao*, YANG Hong-Mei, GUO Qi-Lei,
LIU Yan-Qin, SHI Hai-Liang, Tian Yan-Ling
Chinese J. Anal. Chem., 2013, 41(2): 283-287



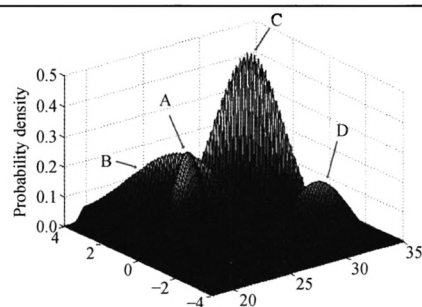
Humidity Sensitive Properties of Graphene Oxide

CHEN Wei, LEI Sheng, WANG Cang, SUN Hao,
CHEN Yu-Quan*
Chinese J. Anal. Chem., 2013, 41(2): 288-292



Tablets Classification Method Based on Bayesian Decision and Near Infrared Spectroscopy

ZHOU Yang*, LÜ Jin, DAI Shu-Guang,
LIU Tie-Bing, SHI Yang, GE Ding-Fei, LI Bo-Bin
Chinese J. Anal. Chem., 2013, 41(2): 293–296



Review and Progress

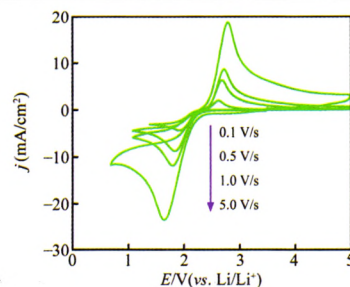
★ Application of Aptamer Identification Technology in Rapid Analysis of Mycotoxins

YANG Xi-Hui, KONG Wei-Jun, YANG Mei-Hua*,
ZHAO Ming, OUYANG Zhen
Chinese J. Anal. Chem., 2013, 41(2): 297–306

The structural bases, characteristics of combination between aptamers and analytes are elaborated in this article. Also, aptamer sequences of mycotoxins are listed. Further, the application of aptamers identification technology for the rapid analysis of mycotoxins is summarized. These analytical applications involve extraction and purification of the sample, aptamer based optical analysis techniques and electrochemical analysis techniques for the rapid detection of single mycotoxin and simultaneous detection of various mycotoxins.

Oxygen Electrode Reactions in Nonaqueous Li-Air Batteries

GUO Li-Min, PENG Zhang-Quan*
Chinese J. Anal. Chem., 2013, 41(2): 307–314



Summary Accounts

Determination of Pesticides in Soil by Accelerated Solvent Extraction-Liquid Chromatography Tandem Mass Spectrometry

YAN Rui, SHAO Ming-Yuan, JU Fu-Long,
SONG Da-Qian, ZHANG Han-Qi*, YU Ai-Min
Chinese J. Anal. Chem., 2013, 41(2): 315–316

A rapid and accurate method based on accelerated solvent extraction liquid chromatography tandem mass spectrometry was developed for the determination of 9 kinds of pesticides in soil. The analytes were extracted by accelerated solvent extraction using acetonitrile as the extraction solvent. The extract was concentrated by evaporation. Qualitative and quantitative analysis for the analytes was carried out by the multiple reaction monitoring mode.

* The author to whom the correspondence should be addressed

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