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分析化学

FENXI HUAXUE

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目次

研究报告

- ★人体血清中的多溴联苯醚、邻苯二甲酸酯和双酚 A 的连续在线分离及气相色谱-质谱测定
..... 邵敏 陈永亨* 李晓宇 (1139)
- 基于纳米金固定半抗原的电化学免疫传感器灵敏检测克伦特罗
..... 刘雪平 张一芳 吴会旺 沈国励 俞汝勤* (1147)
- 乙基膦酸分子印迹光子晶体传感器的研究 刘烽 黄舒悦 薛飞 常靖 薛敏 孟子暉* (1153)
- ★超临界流体色谱法分析非对映异构体 d4T-5'-N-磷酸化苯丙氨酸甲酯
..... 陈伟珠 许鹏翔 易瑞灶 赵玉芬* (1159)
- 低温等离子体原子荧光光谱法直接测定固体样品中的汞
..... 杨萌 薛蛟 李铭 李佳 黄秀 邢志* (1164)
- 硅壳包被的核壳型量子点荧光纳米颗粒的制备及其细菌计数的应用 傅昕* 张何 黄可龙 (1169)
- ★弱阴离子超高交联树脂固相萃取-高效液相色谱-紫外法测定人尿中高香草酸的含量
..... 胡坪 章弘扬* 茅冬燕 宁方红 王瑞娟 王月荣 张敏 (1175)
- 高效液相色谱分析鱼毒性藻类海洋卡盾藻溶血毒素 吴霓 江天久* 江涛 (1181)
- ★全二维气相色谱/飞行时间质谱法定性筛查鱼肉组织中含卤有机污染物
..... 汪洋 于志强 罗湘凡 冯加良 张东平 任国发* 盛国英 傅家谟 (1187)
- ★用于 DNA 杂交检测的丝网印刷型生物传感器的研究 陈盛珍 蔡强* 彭方毅 黄新新 贾玉玲 (1194)
- ★液相色谱-串联质谱法测定生物样本全基因组 DNA 甲基化
..... 彭思远 张洁* 田美平 王展林 申河清 (1201)
- 聚(4-乙烯基苯硼酸-季戊四醇三丙烯酸酯)亲和整体柱的制备与应用
..... 王超然 王彦 高也 马丹丹 谷雪 阎超* (1207)
- 全二维气相色谱-电子捕获检测器法分析土壤中毒杀芬同类物的残留
..... 张兵 郑明辉* 刘国瑞 李成 高丽荣 (1213)
- ★基于分子印迹电聚合膜的褪黑素传感器的研究 韦寿莲* 潘文捷 汪洪武 严子军 (1219)
- 凝胶层析和离子交换层析结合法纯化高盐发酵液中谷氨酰胺转胺酶
..... 张莉丽 张兰威* 杜明 韩雪 易华西 张英春 张艳禾 马徽 (1225)
- 碱性橙与蛋白间的特异性与非特异性作用荧光光谱比较
..... 雷红涛 唐秋实 黄文凯 Chen Situ 刘英菊* 孙远明* (1231)
- ★基于核酸切割酶与脱氧核酶的荧光循环放大系统检测铅(II)
..... 赵永席* 齐林 杨卫军 魏帅 王亚玲 (1236)
- 芳基吡啶类 Fe³⁺ 荧光探针的合成与分析应用 易卫国 曹忠* 鄢东 曹婷婷 薛琳 (1241)
- 荧光偏振免疫分析方法快速检测沙拉沙星残留
..... 宋佩 孟萌 Sergei A Eremin 张太昌 田溪 薛虎寅 张昱 尹永梅* 郝日沫* (1247)
- 离子液体双水相技术萃取头孢呋辛酯及其机理探究 谷雨 何华* 谭树华* 李悦 何佳 (1252)
- 中空纤维支撑离子液体液液微萃取法检测环境水体中的三氯生
..... 江静 邵晓玲 常真 吴向阳* 张祯 (1257)
- 液相色谱串联质谱法测定鸡肉中 20 种抗球虫药物多残留
..... 岳振峰* 康海宁 陈小霞 肖陈贵 侯乐锡 罗志军 赵凤娟 沈金灿 (1262)
- 超高效液相色谱串联质谱法检测食品中蜡样芽孢杆菌呕吐毒素 Cereulide 张秀光* 蔡欣欣 李毅 (1267)

醚型菊酯类农药通用抗原的合成及鉴定

..... 睢珂 潘家荣* 王磊 王志伟 赵杰 郑月明 诸葛洁婧 潘文斌 (1274)

研究简报

基于微孔板化学发光法检测碱性磷酸酶的研究

..... 王宇 王宗良 崔立国 庄秀丽 陈学思 章培标* (1279)

液相色谱-串联质谱法测定花生中丙硫菌唑及其脱硫代谢物

..... 史晓梅 金芬* 杜欣蔚 黄玉婷 王森 王静* 金茂俊 邵华 (1284)

尺寸排阻色谱-电感耦合等离子体质谱联用技术研究牛血清白蛋白与顺铂的反应动力学

..... 赵磊超 王萌* 郑令娜 宫铤 汪冰 丰伟悦 梁金生 (1289)

评述与进展

★微流控液滴技术:微液滴生成与操控 陈九生 蒋稼欢* (1293)

氧化还原可逆荧光探针的研究及其在细胞成像中的应用进展 王翔 齐文学 夏雁青 唐波* (1301)

NEWS

基于纳米金/石墨烯和二氧化硅微球双方大的量子点近红外电致化学发光免疫传感器 (1309)

《分析化学》参考文献著录格式变更说明(1283)

会议通知

庆祝《分析实验室》创刊 30 周年暨分析测试技术学术交流会(1180)、ICASI'2012、CCATM'2012 国际冶金及材料分析测试学术报告会及展览会(1218)、第六届上海国际分析化学研讨会(1230)、2012 年全国有机质谱学术会议(1246)

书刊征订

《有机化合物的分子量与分子式》(1273)

企业消息

上海新仪微波发布 70 罐微波消解仪和公升级密闭微波合成仪(1168)

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) 岛津技述(上海)商贸有限公司(文前 3) 青岛盛瀚仪器公司(文前 4) 上海屹尧仪器科技发展有限公司(文前 5) 长春新产业光电技术有限公司(文前 6) 北京普析通用仪器有限公司(文前 7) 大连依利特分析仪器有限公司(文前 8) 北京海光仪器公司(文前 9) 成都超纯科技有限公司(文前 10) 广州仪科实验室技术有限公司(文前 11) 安捷伦科技有限公司(文前 12) 安捷伦科技有限公司(文前 13) 安捷伦科技有限公司(文前 14) 安捷伦科技有限公司(文前 15) 安捷伦科技有限公司(文前 16) 德国耶拿分析仪器有限公司(文前 17) 北京浩天晖科贸有限公司(文前 18) 北京浩天晖科贸有限公司(文前 19) 信息仪器网(文前 20) 慕尼黑上海分析生化展(文前 21) 订阅《分析化学》(文前 22) 默克密理博中国(文前 23) 赛默飞世尔科技(中国)有限公司(目录前 24) 赛默飞世尔科技(中国)有限公司(中插 1) 瑞士万通中国有限公司(中插 2) 订阅《分析化学》(中插 3) 北京氦普北分气体工业有限公司(中插 4) 北京氦普北分气体工业有限公司(中插 5) 上海磐和电子科技有限公司(中插 6) 梅特勒-托利多中国(封三) 美国 TEDIA 天地试剂公司(封底)

(本期责任编辑:王重洋 编排、制图:潘文革)

* 联系人

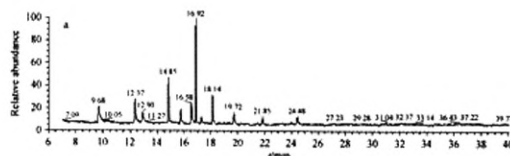
★ 该文章的英文电子版由 Elsevier 出版社在 ScienceDirect 上出版(<http://www.sciencedirect.com/science/journal/18722040>)

Scientific Papers

★Consecutive On-line Separation and Determination of Polybrominated Diphenyl Ethers, Phthalate Esters and Bisphenol A in Human Serum by Gas Chromatography-Mass Spectrometry

SHAO Min, CHEN Yong-Heng*, LI Xiao-Yu

Chinese J. Anal. Chem., 2012, 40(8): 1139—1146

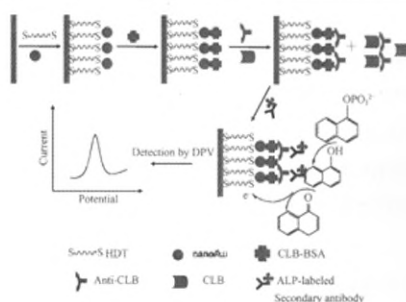


Sensitive Electrochemical Immunosensor for Determination of Clenbuterol Using Gold Colloid-Mediated Hapten Immobilization

LIU Xue-Ping, ZHANG Yi-Fang,

WU Hui-Wang, SHEN Guo-Li, YU Ru-Qin*

Chinese J. Anal. Chem., 2012, 40(8): 1147—1152



Preparation of Molecularly Imprinted Photonic Crystal Sensor of Ethyl Phosphonate

LIU Feng, HUANG Shu-Yue, XUE Fei,

CHANG Jing, XUE Min, MENG Zi-Hui*

Chinese J. Anal. Chem., 2012, 40(8): 1153—1158

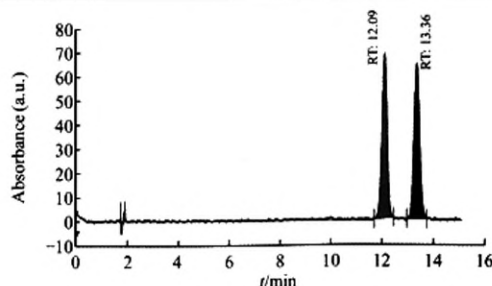


★Separation of Phenylalanine Methyl ester 5'-Phosphoramidates of d4T Diastereoisomers by Supercritical Fluid Chromatography

CHEN Wei-Zhu, XU Peng-Xiang,

YI Rui-Zao, ZHAO Yu-Fen*

Chinese J. Anal. Chem., 2012, 40(8): 1159—1163

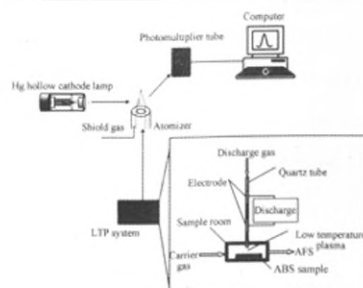


Direct Determination of Mercury in Solid Samples by Low Temperature Plasma Coupled with Atomic Fluorescence Spectrometry

YANG Meng, XUE Jiao, LI Ming, LI Jia,

HUANG Xiu, XING Zhi*

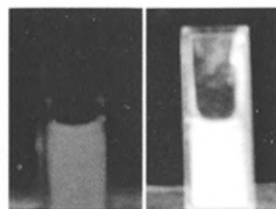
Chinese J. Anal. Chem., 2012, 40(8): 1164—1168



Synthesis of Core/Shell Quantum Dots Doped Silica Nanoparticles and Their Application for Detecting Bacterial Count

FU Xin*, ZHANG He, HUANG Ke-Long

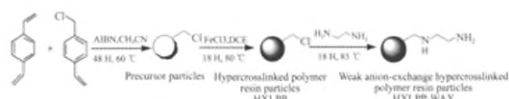
Chinese J. Anal. Chem., 2012, 40(8): 1169–1174



★ Determination of Homovanillic Acid in Human Urine by Weak Anion Exchange Hypercrosslinked Polymer Resin-SPE-HPLC-UV method

HU Ping, MAO Dong-Yan, NING Fang-Hong, WANG Rui-Juan, WANG Yue-Rong, ZHANG Min, ZHANG Hong-Yang*

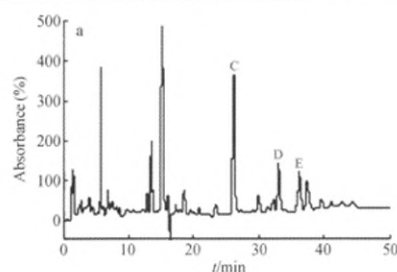
Chinese J. Anal. Chem., 2012, 40(8): 1175–1180



Analyses of Hemolytic Toxin from Ichthyotoxic Phytoplankton *Chattonella marina* (Hong Kong Strain) by High Performance Liquid Chromatography

WU Ni, JIANG Tian-Jiu*, JIANG Tao

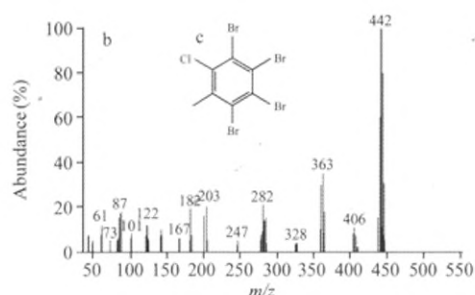
Chinese J. Anal. Chem., 2012, 40(8): 1181–1186



★ Qualitative Analysis of Some Emerging Halogenous Pllutions in Fish Sample by Comprehensive Two-Dimensional Gas Chromatography/Time-of-Flight Mass Spectrometry

WANG Yang, YU Zhi-Qiang, LUO Xiang-Fan, FENG Jia-Liang, ZHANG Dong-Ping, REN Guo-Fa*, SHENG Guo-Ying, FU Jia-Mo

Chinese J. Anal. Chem., 2012, 40(8): 1187–1193



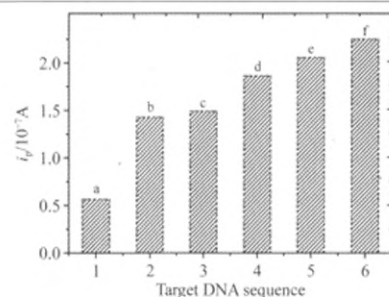
★ Screen-Printed Electrochemical Biosensor for Detection of DNA Hybridization

CHEN Sheng-Zhen, CAI Qiang*,

PENG Fang-Yi, HUANG Xin-Xin,

JIA Yu-Ling

Chinese J. Anal. Chem., 2012, 40(8): 1194–1200

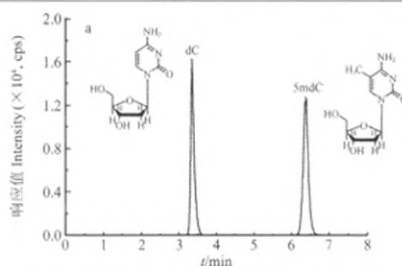


★ Determination of Global DNA Methylation in Biological Samples by Liquid Chromatography-Tandem Mass Spectrometry

PENG Si-Yuan, ZHANG Jie*, TIAN Mei-Ping,

WANG Zhan-Lin, SHEN He-Qing

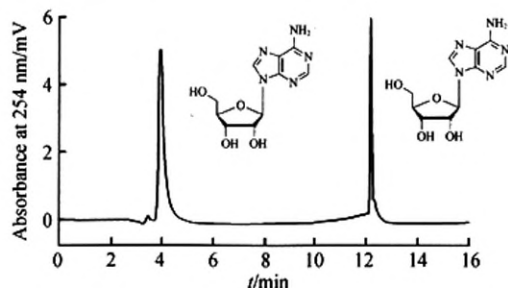
Chinese J. Anal. Chem., 2012, 40(8): 1201–1206



Preparation, Characterization and Applications of Poly(4-vinylphenylboronic-co-pentaerythritol triacrylate) Affinity Monolithic Capillary Columns

WANG Chao-Ran, WANG Yan, GAO Ye, MA Dan-Dan, GU Xue, YAN Chao*

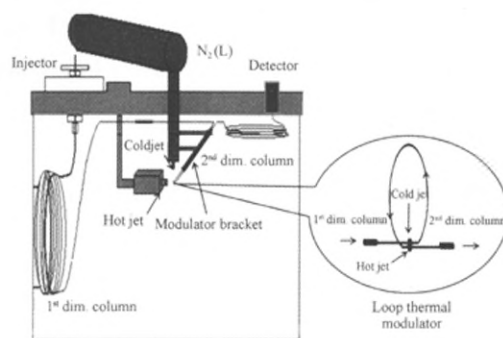
Chinese J. Anal. Chem., 2012, 40(8): 1207–1212



Comprehensive Two-dimensional Gas Chromatography with Micro-electron Capture Detector for Analysis of Toxaphene Congeners in Soil

ZHANG Bing, ZHENG Ming-Hui*, LIU Guo-Rui, LI Cheng, GAO Li-Rong

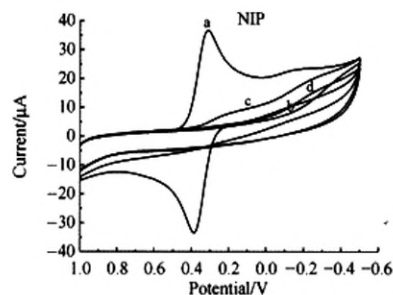
Chinese J. Anal. Chem., 2012, 40(8): 1213–1218



Study of Melatonin Sensor Based on Molecular Imprinting Technique and Electropolymerization Membrane

WEI Shou-Lian*, PAN Wen-Jie, WANG Hong-Wu, YAN Zi-Jun

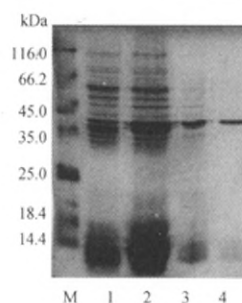
Chinese J. Anal. Chem., 2012, 40(8): 1219–1224



Purification of Transglutaminase from High Salt Culture by Gel and Cation Exchange Chromatography

ZHANG Li-Li, ZHANG Lan-Wei*, DU Ming, HAN Xue, YI Hua-Xi, ZHANG Ying-Chun, ZHANG Yan-He, MA Wei

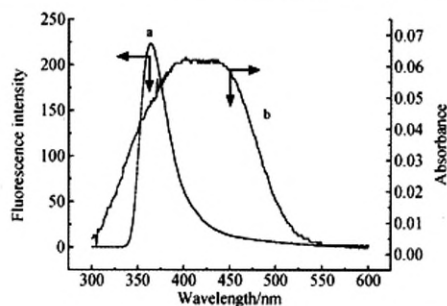
Chinese J. Anal. Chem., 2012, 40(8): 1225–1230



Fluorescence Spectra Study on Specific and Non-specific Interactions Between Chrysoidine and Proteins

LEI Hong-Tao, TANG Qiu-Shi, HUANG Wen-Kai, Chen Situ, LIU Ying-Ju*, SUN Yuan-Ming*

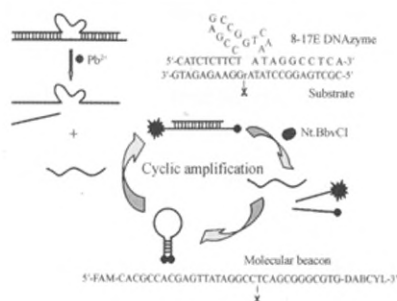
Chinese J. Anal. Chem., 2012, 40(8): 1231–1235



★ **Amplified Fluorescence Detection of Pb²⁺ Using Pb²⁺-dependent DNzyme Combined with Nicking Enzyme-Mediated Enzymatic Recycling Amplification Strategy**

ZHAO Yong-Xi*, QI Lin, YANG Wei-Jun, WEI Shuai, WANG Ya-Ling

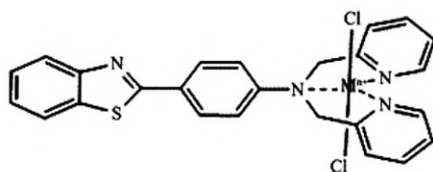
Chinese J. Anal. Chem., 2012, 40(8): 1236–1240



Synthesis and Analytical Application of Fluorescent Iron Ions(III) Probe Based on 2-(4-aminophenyl)benzo[d]thiazole and 2-Picolylamine Derivatives

YI Wei-Guo, CAO Zhong*, YAN Dong, CAO Ting-Ting, XUE Lin

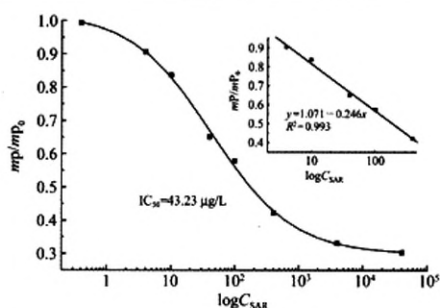
Chinese J. Anal. Chem., 2012, 40(8): 1241–1246



Development of a Fluorescence Polarization Immunoassay for Rapid Determination of Sarafloxacin in Milk and Pig Urine

SONG Pei, MENG Meng, Sergei A Eremin, ZHANG Tai-Chang, TIAN Xi, XUE Hu-Yin, ZHANG Yu, YIN Yong-Mei*, XI Ri-Mo*

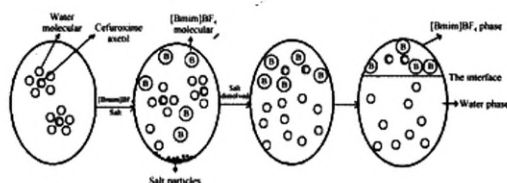
Chinese J. Anal. Chem., 2012, 40(8): 1247–1251



Extraction and Mechanism Investigation of Trace Cefuroxime Axetil Using Ionic Liquid-Salt Aqueous Two-phase System

GU Yu, HE Hua*, TAN Shu-Hua*, LI Yue, HE Jia

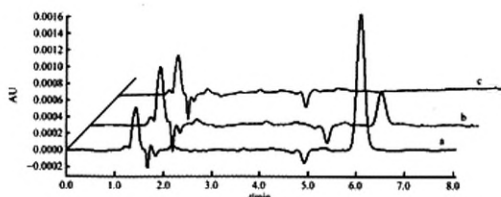
Chinese J. Anal. Chem., 2012, 40(8): 1252–1256



Hollow Fiber Supported Ionic Liquid Liquid-Liquid Micro-Extraction for Determination of Triclosan in Environmental Water Samples

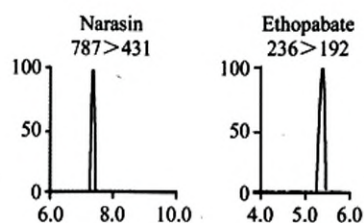
JIANG Jing, SHAO Xiao-Ling, CHANG Zhen, WU Xiang-Yang*, ZHANG Zhen

Chinese J. Anal. Chem., 2012, 40(8): 1257–1261



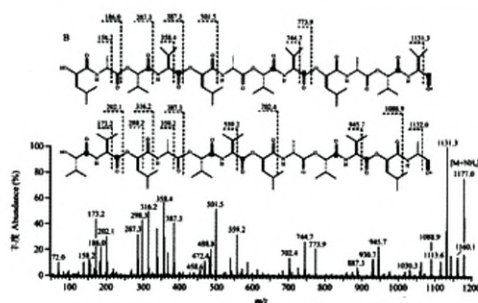
Simultaneous Determination of 20 Coccidiostat Residues in Chicken by Liquid Chromatography-Tandem Mass Spectrometry

YUE Zhen-Feng*, KANG Hai-Ning,
CHEN Xiao-Xia, XIAO Chen-Gui, HOU Le-Xi,
LUO Zhi-Jun, ZHAO Feng-Juan, SHEN Jin-Can
Chinese J. Anal. Chem., 2012, 40(8): 1262-1266



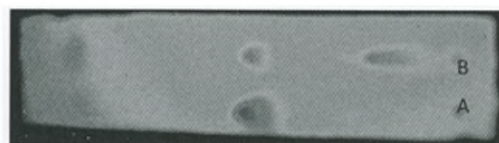
Rapid Quantification of Cereulide, Emetic Toxin of Bacillus Cereus, in Foods by Ultra Performance Liquid Chromatography-Triple Quadrupole Mass Spectrometry

ZHANG Xiu-Yao*, CAI Xin-Xin, LI Yi
Chinese J. Anal. Chem., 2012, 40(8): 1267-1273



Synthesis and Identification of Generic Antigen for Ether Pyrethroid Pesticides

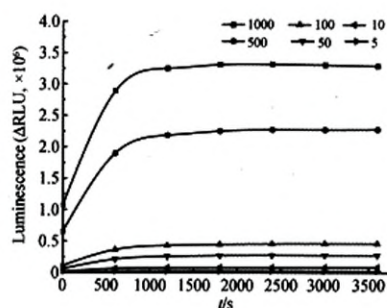
SUI Ke, PAN Jia-Rong*, WANG Lei,
WANG Zhi-Wei, ZHAO Jie, ZHENG Yue-Ming,
ZHUGE Jie-Jing, PAN Wen-Bin
Chinese J. Anal. Chem., 2012, 40(8): 1274-1278



Research Notes

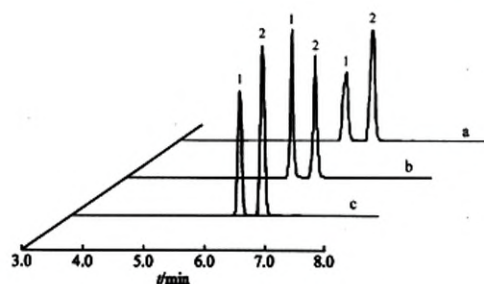
Research of Chemiluminescent Assay of Alkaline Phosphatase Based on Microplate

WANG Yu, WANG Zong-Liang, CUI Li-Guo,
ZHUANG Xiu-Li, CHEN Xue-Si,
ZHANG Pei-Biao*
Chinese J. Anal. Chem., 2012, 40(8): 1279-1283



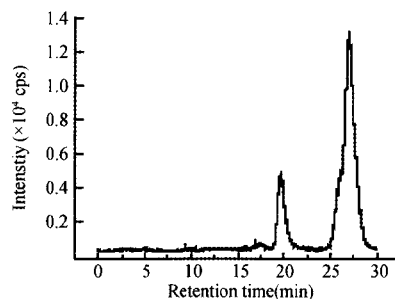
Determination of Prothioconazole and Prothioconazole-desthio in Peanut Samples by Liquid Chromatography-Tandem Mass Spectrometry

SHI Xiao-Mei, JIN Fen*, DU Xin-Wei,
HUANG Yu-Ting, WANG Miao,
WANG Jing*, JIN Mao-Jun, SHAO Hua
Chinese J. Anal. Chem., 2012, 40(8): 1284-1288



Study of Reaction Dynamics Between Bovine Serum Albumin and Cisplatin by Size Exclusion Chromatography-Inductively Coupled Plasma-Mass Spectrometry

ZHAO Lei-Chao, WANG Meng* ,
ZHENG Ling-Na, GONG Xin, WANG Bing,
FENG Wei-Yue, LIANG Jin-Sheng
Chinese J. Anal. Chem., 2012, 40(8): 1289–1292



Review and Progress

★ **Droplet Microfluidic Technique: Mirodroplets Formation and Manipulation**

CHEN Jiu-Sheng, JIANG Jia-Huan*
Chinese J. Anal. Chem., 2012, 40(8): 1293–1300

The high-throughput two-phase partition ability of microdroplet technique attracts attentions from many researchers in many fields. This paper reviews main methods currently developed for microdroplet formation, including hydrodynamic method, pneumatic pressure method, optic-driven method, and also the microfluidic techniques for microdroplet manipulation, such as splitting, coalescence, mixing, sorting, trapping and droplet position control.

Progress on Fluorescent Probes for Reversible Redox Cycles and Their Application in Living Cell Imaging

WANG Xu, QI Wen-Xue, XIA Yan-Qing,
TANG Bo*
Chinese J. Anal. Chem., 2012, 40(8): 1301–1308

The reversible oxidation biology of cells provides broad implications in physiological and pathological fields. Therefore, the analytical methods that can be used to study the dynamic redox chemistry in living cells are attractive and draw sustained attention. In this regard, fluorescence detection or imaging with redox-responsive probes is a potentially powerful approach because of its merits of easy visualization, simple operation, and in vivo application. This review summarizes the recent progress on fluorescent probes for reversible redox cycles and their application in living cell imaging with 54 references. Particularly, future study and prospect were envisioned.

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