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分析化学

FENXI HUAXUE

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庆祝《分析试验室》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)

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(本期责任编辑:王重洋 编排、制图:潘文革)

* 联系人

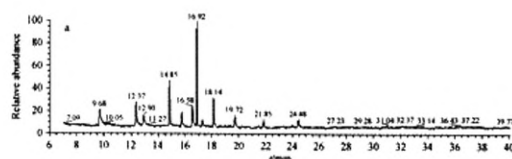
★ 该文章的英文电子版由 Elsevier 出版社在 ScienceDirect 上出版(<http://www.sciencedirect.com/science/journal/18722040>)

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

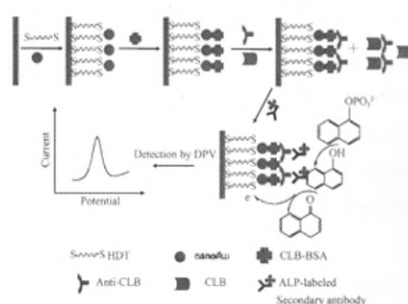


Sensitive Electrochemical Immunosensor for Determination of Clenbuterol Using Gold Colloid-Mediated Hapten Immobilization

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

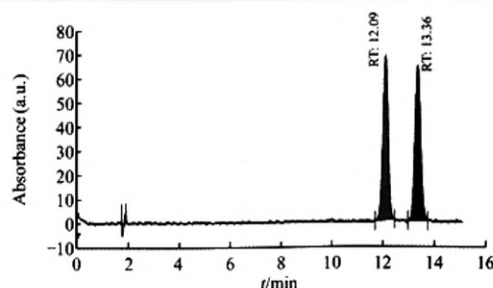


★Separation of Phenylalanine Methyl ester 5'-Phosphoramidates of d4T Diastereoisomers by Supercritical Fluid Chromatography

CHEN Wei-Zhu, XU Peng-Xiang,

YI Rui-Zao, ZHAO Yu-Fen*

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

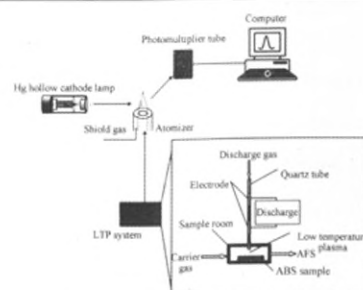


Direct Determination of Mercury in Solid Samples by Low Temperature Plasma Coupled with Atomic Fluorescence Spectrometry

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

HUANG Xiu, XING Zhi*

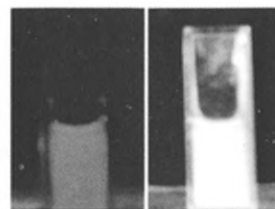
Chinese J. Anal. Chem., 2012, 40(8): 1164—1168



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

FU Xin*, ZHANG He, HUANG Ke-Long

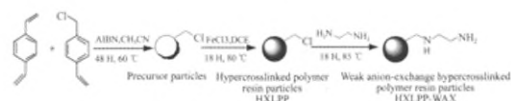
Chinese J. Anal. Chem., 2012, 40(8): 1169–1174



★ 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*

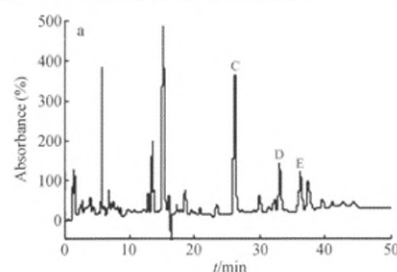
Chinese J. Anal. Chem., 2012, 40(8): 1175–1180



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

WU Ni, JIANG Tian-Jiu*, JIANG Tao

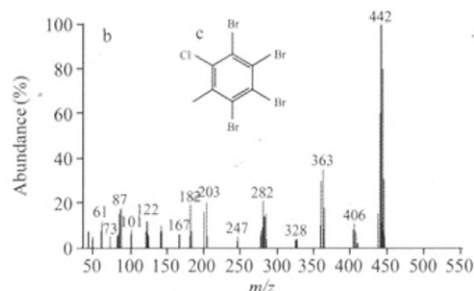
Chinese J. Anal. Chem., 2012, 40(8): 1181–1186



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

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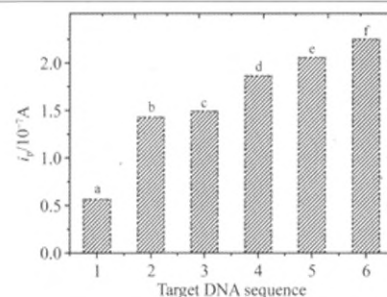
Chinese J. Anal. Chem., 2012, 40(8): 1187–1193



★ Screen-Printed Electrochemical Biosensor for Detection of DNA Hybridization

CHEN Sheng-Zhen, CAI Qiang*, PENG Fang-Yi, HUANG Xin-Xin, JIA Yu-Ling

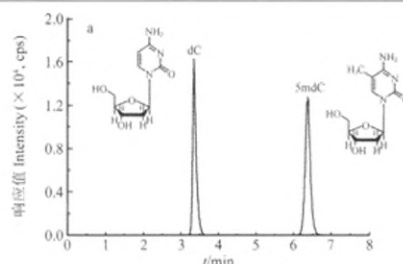
Chinese J. Anal. Chem., 2012, 40(8): 1194–1200



★ 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

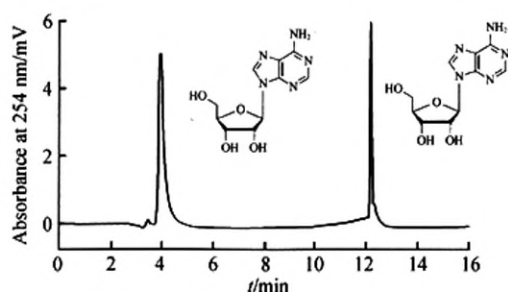
Chinese J. Anal. Chem., 2012, 40(8): 1201–1206



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*

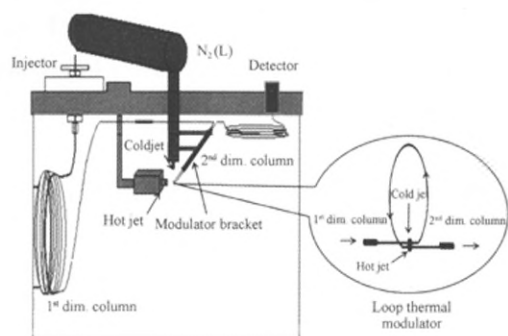
Chinese J. Anal. Chem., 2012, 40(8): 1207–1212



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

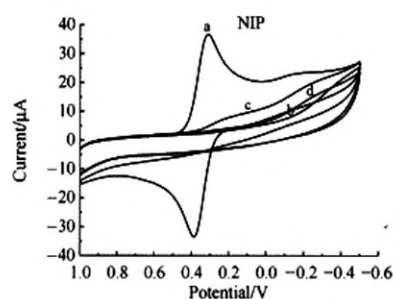
Chinese J. Anal. Chem., 2012, 40(8): 1213–1218



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

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

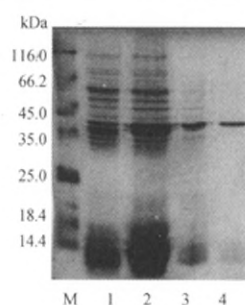
Chinese J. Anal. Chem., 2012, 40(8): 1219–1224



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

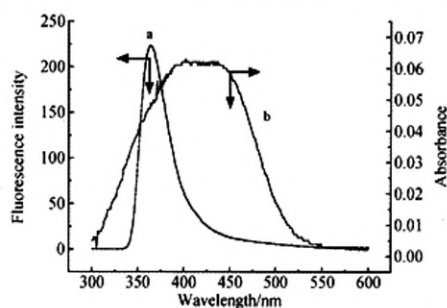
Chinese J. Anal. Chem., 2012, 40(8): 1225–1230



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*

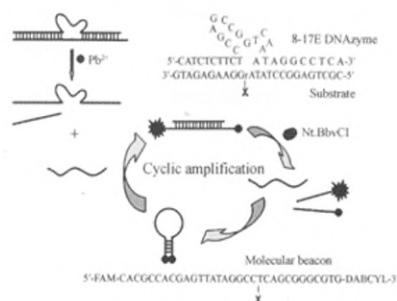
Chinese J. Anal. Chem., 2012, 40(8): 1231–1235



★ **Amplified Fluorescence Detection of Pb^{2+} Using Pb^{2+} -dependent DNzyme Combined with Nicking Enzyme-Mediated Enzymatic Recycling Amplification Strategy**

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

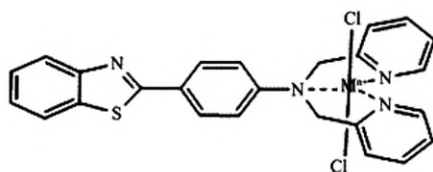
Chinese J. Anal. Chem., 2012, 40(8): 1236–1240



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

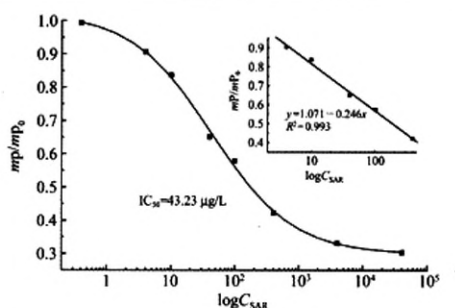
Chinese J. Anal. Chem., 2012, 40(8): 1241–1246



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*

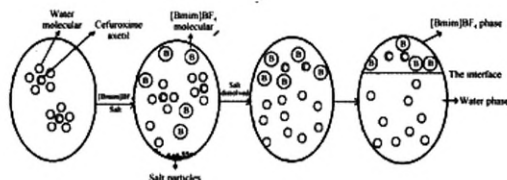
Chinese J. Anal. Chem., 2012, 40(8): 1247–1251



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

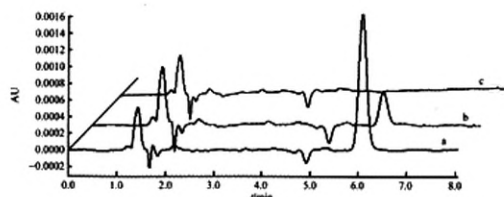
Chinese J. Anal. Chem., 2012, 40(8): 1252–1256



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

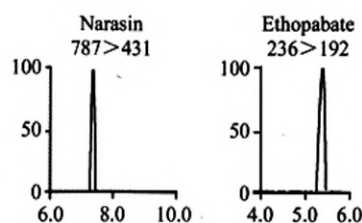
JIANG Jing, SHAO Xiao-Ling, CHANG Zhen, WU Xiang-Yang*, ZHANG Zhen

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



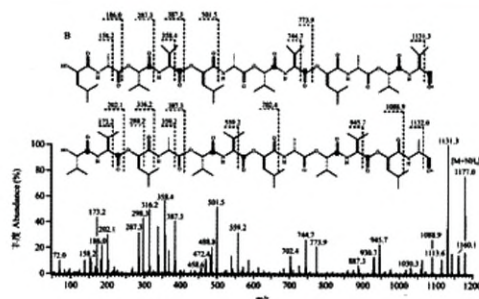
Simultaneous Determination of 20 Coccidiostat Residues in Chicken by Liquid Chromatography-Tandem Mass Spectrometry

YUE Zhen-Feng*, KANG Hai-Ning,
CHEN Xiao-Xia, XIAO Chen-Gui, HOU Le-Xi,
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Chinese J. Anal. Chem., 2012, 40(8): 1262—1266



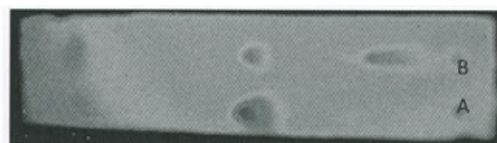
Rapid Quantification of Cereulide, Emetic Toxin of Bacillus Cereus, in Foods by Ultra Performance Liquid Chromatography-Triple Quadrupole Mass Spectrometry

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

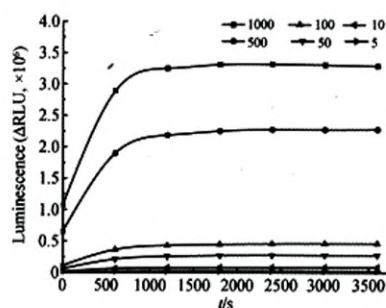
SUI Ke, PAN Jia-Rong*, WANG Lei,
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Chinese J. Anal. Chem., 2012, 40(8): 1274—1278



Research Notes

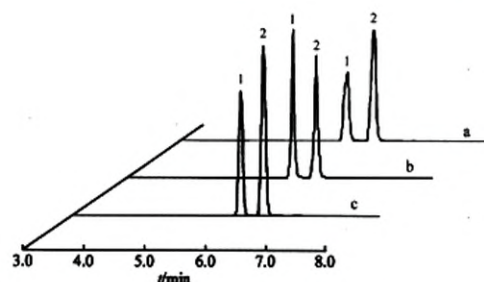
Research of Chemiluminescent Assay of Alkaline Phosphatase Based on Microplate

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

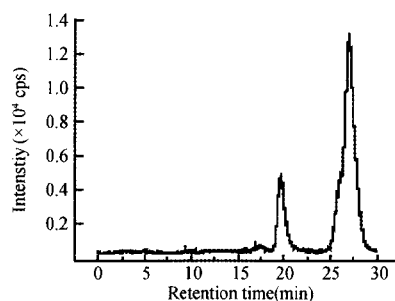
SHI Xiao-Mei, JIN Fen*, DU Xin-Wei,
HUANG Yu-Ting, WANG Miao,
WANG Jing*, JIN Mao-Jun, SHAO Hua
Chinese J. Anal. Chem., 2012, 40(8): 1284—1288



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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