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分析化学

FENXI HUAXUE

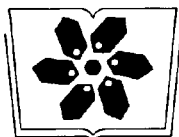
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FENXI HUAXUE

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创刊 40 周年特约来稿

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会议通知

中国化学会第十一届全国分析化学年会(第二轮通知)(995)、第六届上海国际分析化学研讨会(1018)、中国化学会分析化学委员会关于申请“分析化学基础研究梁树权奖”的通知(1103)、2012年全国有机质谱学术会议(第一轮通知)(1122)、庆祝《分析试验室》创刊30周年暨分析测试技术学术交流会(1134)

书刊征订

《铅酸蓄电池分析与检测技术》(1036)、《色谱在材料分析中的应用》(1117)

企业消息

沃特世公司成功举办 DMPK 研究进展及最新技术高峰论坛(982)、瑞宁移液器达人全国挑战赛拉开帷幕(1001)、沃特世大力支持第三届质谱论坛(1010)

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(本期责任编辑:于桂红 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>)

Invited Paper

★ Bioanalytical Applications of Surface-Enhanced Infrared Absorption Spectroscopy

WANG Li-Xu, JIANG Xiu-E*

Chinese J. Anal. Chem., 2012, 40(7): 975—982

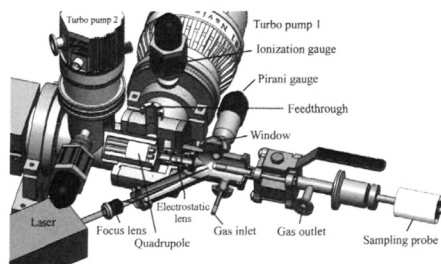
Surface-enhanced infrared absorption spectroscopy (SEIRAS) has attracted extensive attention, because it can be used to in-situ monitor the molecular adsorption at the interface, providing information of conformation and orientation at the molecular level. Its appearance, enhancement mechanism, substrate preparation and the character were introduced briefly. Its applications in in-situ studying the complex behavior of adsorbed biomacromolecules at the interface were mainly reviewed, and the prospects were discussed.

Letters

Development of Dual-Source (Glow Discharge/Laser Ablation & Ionization) Quadrupole Mass Spectrometer

LI Ling-Feng, LI Wei-Feng, WANG Xiao-Hua, HANG Wei*, HUANG Ben-Li

Chinese J. Anal. Chem., 2012, 40(7): 983—988

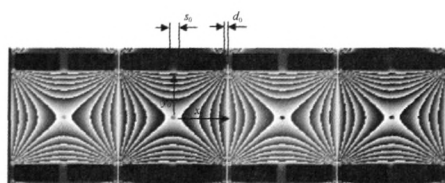


Scientific Papers

Optimization of Ion Trap Array Mass Analyzer by Computer Simulation

LUO Chan, DING Chuan-Fan*

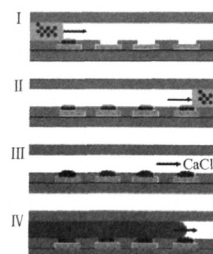
Chinese J. Anal. Chem., 2012, 40(7): 989—995



Three Dimensional Cultures of Liver Cancer Cell on a Poly(dimethyl siloxane)-Paper Hybrid Microfluidic Chip

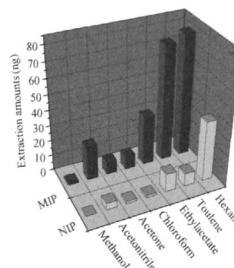
ZHANG Qiong, ZHOU Xiao-Mian, YAN Wei, LIANG Guang-Tie, ZHANG Qi-Chao, LIU Da-Yu*

Chinese J. Anal. Chem., 2012, 40(7): 996—1001



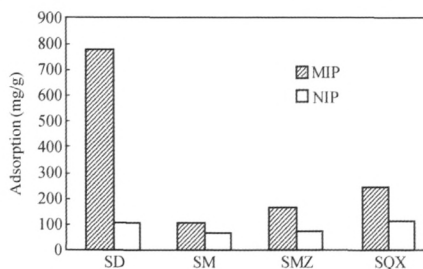
Preparation of Trimethoprim Molecularly Imprinted Stir Bar Sorptive Extraction and Its Application for Trace Analysis of Trimethoprim and Sulfonamides in Complex Samples

XU Zhi-Gang, DU Zhuo, HU Yu-Ling,
HU Yu-Fei, PAN Ying-Peng, LI Gong-Ke*
Chinese J. Anal. Chem., 2012, 40(7): 1002–1010



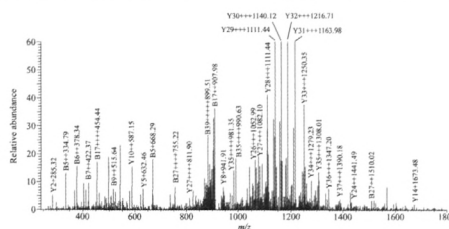
★Determination of Sulfadiazine Residues in Pork by Molecular Imprinted Column Coupling with High Performance Liquid Chromatography

HUANG Yun-Hong, XU Yang*, DU Bi-Bai,
HE Qing-Hua, CAO Yu-Sheng
Chinese J. Anal. Chem., 2012, 40(7): 1011–1018



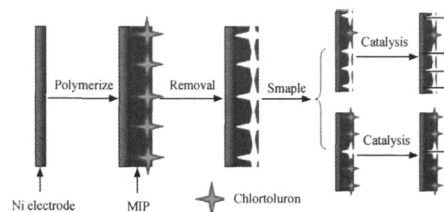
Characterization of N-Glycosylation Status of Micro-Level Glycoprotein Using Solid Phase Extraction Based Techniques

JIANG Jing, HAN Huan-Huan, MA Cheng,
WANG Ji-Feng, YING Wan-Tao,
QIAN Xiao-Hong*
Chinese J. Anal. Chem., 2012, 40(7): 1019–1024



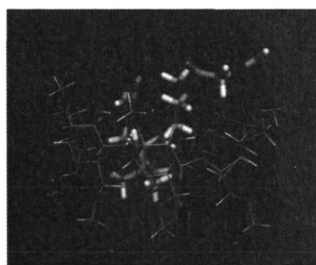
A Molecularly Imprinting Sensor Based on Gate Controlled Electro-catalyzation

ZHANG Lian-Ming, LI Jian-Ping*,
PAN Hong-Cheng
Chinese J. Anal. Chem., 2012, 40(7): 1025–1030



Chiral Separation of New Triazole Antifungal Active Compounds by Capillary Electrophoresis and Molecular Modeling Study of Chiral Recognition Mechanisms

LI Wu-Hong, ZHANG Xin-Rong, WU Si,
TAN Guang-Guo, LIU Chao-Mei,
ZHU Zhen-Yu, CHAI Yi-Feng*
Chinese J. Anal. Chem., 2012, 40(7): 1031–1036

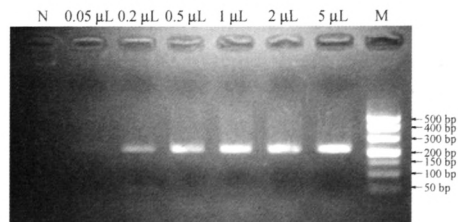


Genotyping of Methylenetetrahydrofolate Reductase Gene by Pyrosequencing Coupled with Polymerase Chain Reaction Using Human Whole Blood as Starting Material

LIU Yun-Long, CHEN Zhi-Yao,

WU Hai-Ping, ZHOU Guo-Hua*

Chinese J. Anal. Chem., 2012, 40(7): 1037–1042

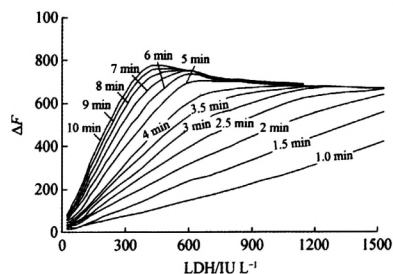


An Novel Enzyme Fluorescence Capillary Analysis for Determination of Lactate Dehydrogenase Activity in Micro-volume Serums

LI Qiao-Jing, LI Yong-Sheng*, ZHOU Lang,

YANG Wei, GAO Xiu-Feng*

Chinese J. Anal. Chem., 2012, 40(7): 1043–1047

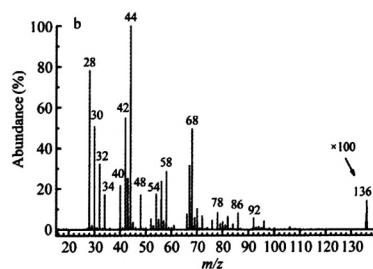


★ Analysis of Gas Phase Components in Mainstream Cigarette Smoke with Synchrotron Radiation Photoionization Mass Spectrometry

WANG Jian, WENG Jun-Jie, JIA Liang-Yuan,

PAN Yang*

Chinese J. Anal. Chem., 2012, 40(7): 1048–1052

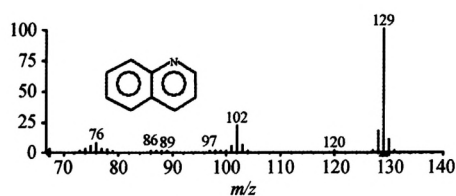


Determination of Pyridine, Quinoline and Styrene in Mainstream Smoke Trapped by Methanol Solution Direct-Ionic Liquid Gathering Coupled Gas Chromatography-Mass Spectrometry

TUO Su-Xing*, YANG Hua-Wu,

WU Ming-Jian, DAI Yun-Hui

Chinese J. Anal. Chem., 2012, 40(7): 1053–1058

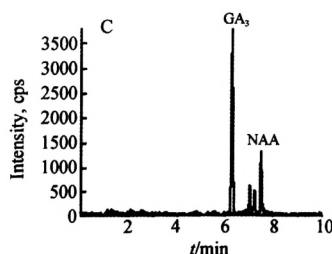


Determination of Gibberellic Acid and α -Naphthlene Acetic Acid in Tea by Ultra-pressure Liquid Chromatography Tandem Mass Spectrometry with Dispersive Solid Phase Extraction

CHEN Hong-Ping*, LIU Xin,

WANG Chuan-Pi, YIN Peng

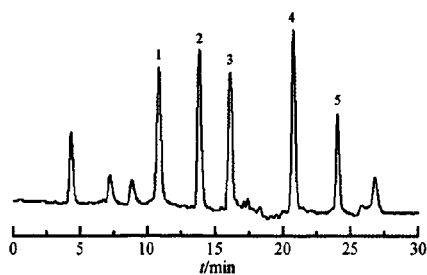
Chinese J. Anal. Chem., 2012, 40(7): 1059–1064



Determination of Tebuconazole, Diethofencarb, Myclobutanil, Metalaxyl, and Prometryn Pesticide Residue in Water Sample Based on Solid Phase Extraction Coupled with High Performance Liquid Chromatography

YU Sheng, HUANG Ke-Jing*, YU Meng, WEI Cai-Yun

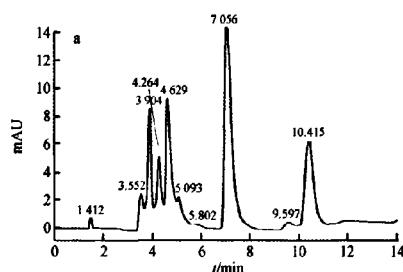
Chinese J. Anal. Chem., 2012, 40(7): 1065–1070



Preparation of Caffeine Molecularly Imprinted Polymers and Application on Solid Phase Extraction

WEI Shou-Lian, GUO Xiao-Jun, WANG Hong-Wu*, TIAN Yong-Xin, YAN Zi-Jun

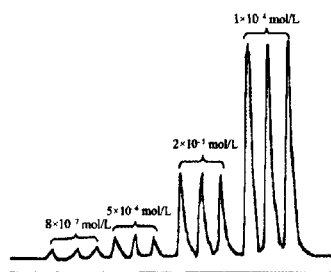
Chinese J. Anal. Chem., 2012, 40(7): 1071–1075



Determination of Captopril in Human Urine Samples by High Performance Liquid Chromatography Coupled to Post-column Chemiluminescence Detection

LONG Xing-Yu, CHEN Fu-Nan*, DENG Mao

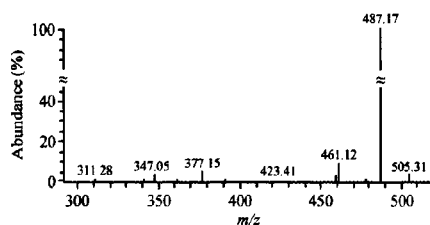
Chinese J. Anal. Chem., 2012, 40(7): 1076–1080



Rapid Determination of Illegally Added Phosphodiesterase 5 Inhibitors in Health Food by Desorption Corona Beam Ionization-Tandem Mass Spectrometry

WU Shuang, WANG Hua, ZHU Hui-Guo, ZHAO Yong, TIAN Qing-Qing, SUN Wen-Jian, DING Li, CHEN Bo*

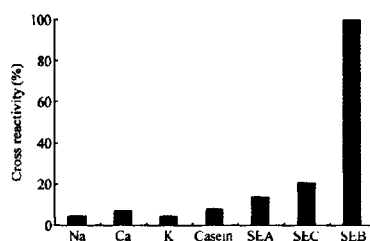
Chinese J. Anal. Chem., 2012, 40(7): 1081–1085



An Electrochemical Immunosensor Modified with Polyaniline-Gold Composite Film for Detecting Staphylococcus Aureus Enterotoxin B in Dairy Products

SUN Xiu-Lan*, GAO Bo, ZHANG Yin-Zhi

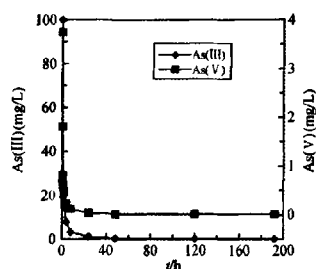
Chinese J. Anal. Chem., 2012, 40(7): 1086–1091



Separation of Inorganic Arsenic Species from Aqueous Solution by Anion Exchange Column and Its Application in Study of Arsenic Removal

GUO Hua-Ming*, LIU Chun-Hua

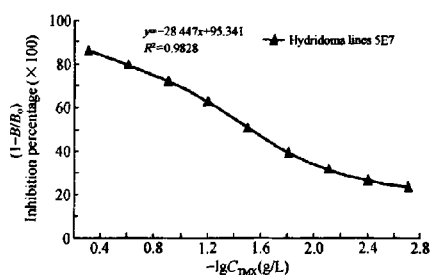
Chinese J. Anal. Chem., 2012, 40(7): 1092–1097



Preparation of Monoclonal Antibodies Against Thiamethoxam and Establishment of Enzyme Linked Immunosorbent Assay Detection Method

LI Guang-Ling, WANG Zi-Liang, LI Jin-Li, XIAO Na-Na, ZHAO Ya-Juan, CHEN Xi-Ling*

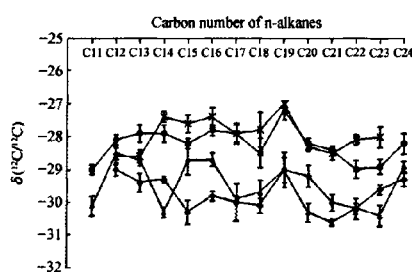
Chinese J. Anal. Chem., 2012, 40(7): 1098–1103



Identification of Middle East Crude Oil Using Stable Carbon Isotope Ratio Mass Spectrometry

LIU Xiao-Xing*, WANG Yi, WANG Yan-Li, GONG Wei-Min

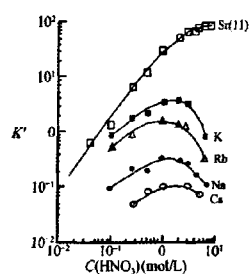
Chinese J. Anal. Chem., 2012, 40(7): 1104–1108



Separation and Isotopic Measurement of Sr in Tooth Samples Using Selective Specific Resins

HE Mao-Yong*, LU Hai, JIN Zhang-Dong, WANG Jun

Chinese J. Anal. Chem., 2012, 40(7): 1109–1113

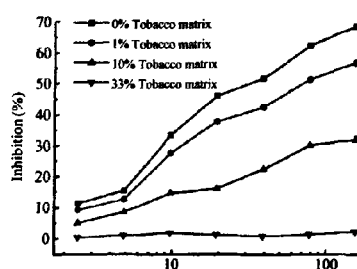


Research Notes

Determination of Dimethachlon in Tobacco by Time-resolved Fluorescence Immunoassay

LIU Yuan*, LIU Rong-Rong, LIU Xian-Jin, FANG Dun-Huang, SONG Cun-Man, Huovinen Tuomas, Vehniainen Markus, Lovgren Timo

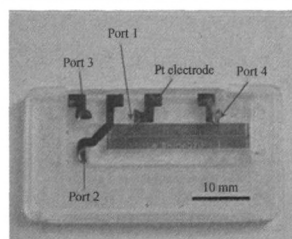
Chinese J. Anal. Chem., 2012, 40(7): 1114–1117



Rapid Separation of Human Serum Proteins by Microchip Electrophoresis

XU Zhong-Qi*, LIU Hui-Qing

Chinese J. Anal. Chem., 2012, 40(7): 1118–1122



Review and Progress

★ Recent Advancement of Chemical Derivatization and Its Applications to High Sensitive Analysis of Peptide in Mass Spectrometry

QIAO Xiao-Qiang*, WANG Rui,
ZHANG Li-Hua, YANG Geng-Liang,
ZHANG Yu-Kui

Chinese J. Anal. Chem., 2012, 40(7): 1123–1129

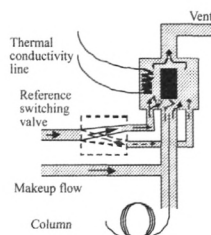
Chemical derivatization has been proved to be one of the most promising methods. Herein, the recent progress in the development of derivatization reagents targeting for the peptides as well as those with post-translational modifications, and its applications in high sensitive analysis in mass spectrometry are reviewed. Furthermore, the future research directions and the potential application in proteome research are discussed.

Experimental Technique and Instrument

★ Xenon Responding Analyzed by Using Micro-Thermal Conductivity Detector for Gas Chromatography

LIU Shu-Jiang*, CHEN Zhan-Ying, CHANG Yin-Zhong, WANG Shi-Lian, LI Qi,
FAN Yuan-Qing

Chinese J. Anal. Chem., 2012, 40(7): 1130–1134

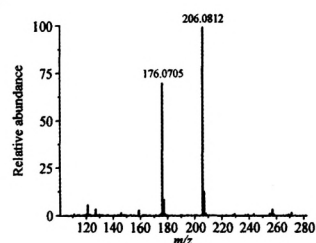


Summary Accounts

Inhibitor Screening of Cathepsin B by Rapid Resolution Liquid Chromatography/Mass Spectrometry

NIU Jun, YU Qing, SONG Feng-Rui,
LIU Zhi-Qiang, LIU Shu-Ying*

Chinese J. Anal. Chem., 2012, 40(7): 1135–1136



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