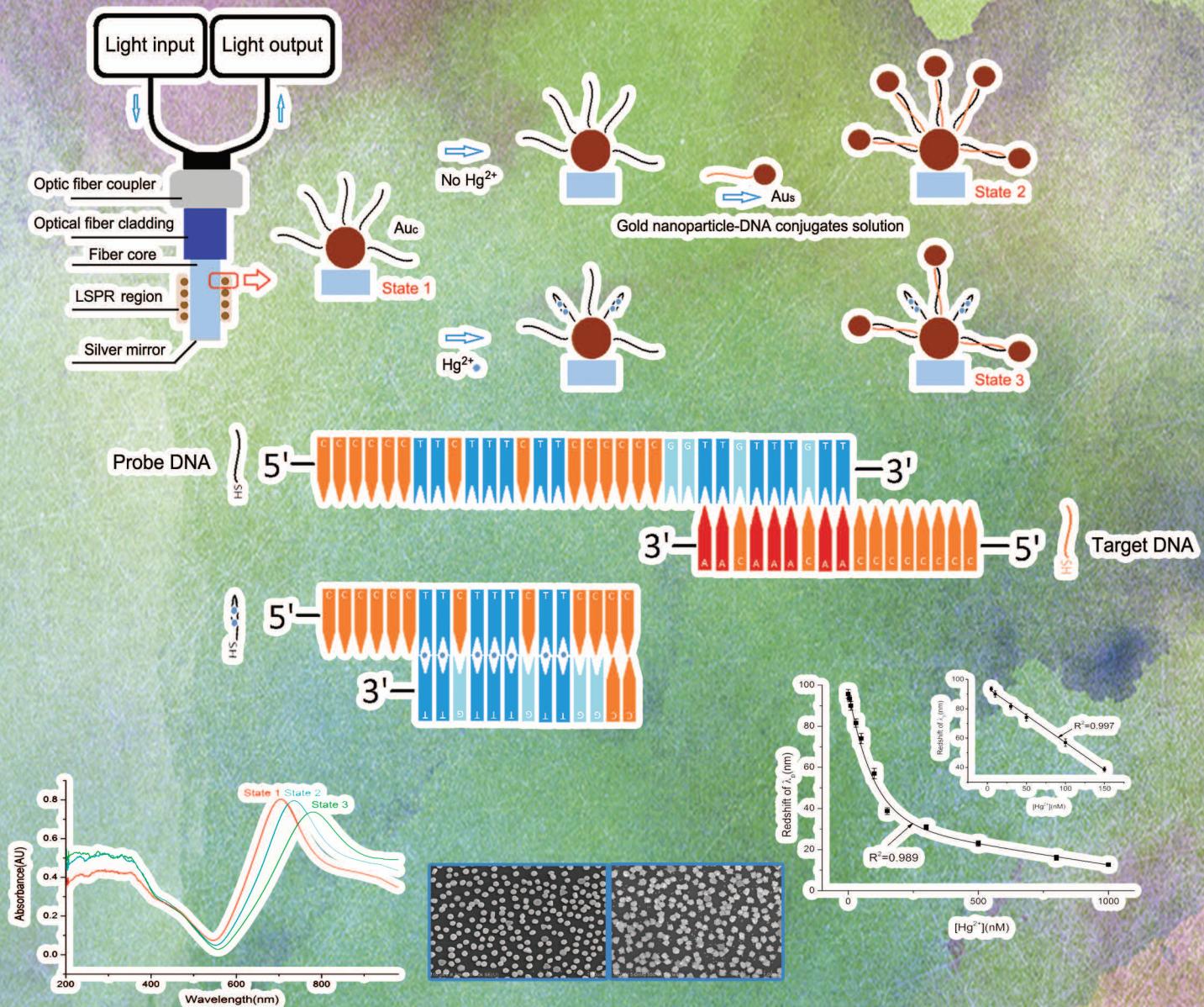


分析化学

No.6 Vol.45
2017. 6

CHINESE J. ANAL. CHEM.



中国化学会
中国科学院长春应用化学研究所
主办
科学出版社
出版



分析化学

第45卷 第6期 2017年6月

目 次

研究 报 告

★基于纳米金 Core-satellites 等离子体耦合增强效应的汞离子光纤传感器的研究

..... 贾溯 边超 佟建华 孙楫舟 夏善红* (785)

复方丹参滴丸抗急性心肌梗死代谢组学研究 芦勤伟 佟玲 李东翔 许凤国* (791)

加速溶剂萃取-硅胶柱净化-碱性氧化铝柱分离-气相色谱三重四极杆质谱法测定土壤中的二噁英类化合物 邬静 胡吉成* 马玉龙 王世杰 王英 金军 (799)

高效液相色谱与纳流电喷雾阵列 Chirp Z 变换离子迁移谱联用方法研究 沈红玲 孟庆艳 贾旭 刘文杰* (809)

12种刷毒鹅膏菌的肽类毒素成分鉴定及其相对含量差异比较研究 魏佳会 吴剑峰 陈佳 吴弼东 陈作红 刘畅* 谢剑炜* (817)

高灵敏检测葡萄糖的新型荧光纳米传感器 李爱琴* 郭唱 许苏英* (824)

★铁氰化钴修饰石墨烯平面电极对过氧化氢的传感作用 赵鸿彩 张璞 李社红 罗红霞* (830)

★气相色谱-质谱联用法分析粪便中碱性和中性挥发性代谢产物

..... 吴丹 杨君君 杨帆 张波泳 杜婕 王跃飞* 许瑞卿* (837)

利用亚临界丁烷分离茶树鲜叶中的阿维菌素 张娅婷 秦广雍 孔令军 张书胜* (844)

★表面辅助激光解吸电离-飞行时间质谱中多聚体离子产生规律的研究

..... 聂龙辉 王卫国* (851)

金属-有机纳米管分散固相萃取-气相色谱-串联质谱高灵敏分析环境水样中痕量多氯联苯

..... 黄芳 余晓坤 周家斌* 王霞 王晓利 王珊珊 赵汝松* (856)

基于低温等离子体辅助催化发光的乙烯传感器 邵康 韩斐斐 赵雪 王舒炜 龙姿 那娜* (862)

激光剥蚀电感耦合等离子体质谱法中生物样品的元素分馏效应研究 李青 张国霞 陈奕睿 汪正* 丁传贤 (868)

顺丁烯二酸 β -环糊精酯-N-乙烯基吡咯烷酮水溶性聚合物的合成及其吸附疏水性药物的研究

..... 李咏富 哈益明* 郭琴 李庆鹏 (874)

基于内滤效应的 YVO₄:Eu 荧光纳米探针测定色氨酸 牛建丽 于永丽* 曹艳杰 王猛 (883)

超滤亲和结合液相色谱-质谱联用和分子对接技术筛选毛菊苣种子中高亲和性 α -葡萄糖苷酶抑制剂

..... 陈海君 秦惠玉 龙飞 于玮 王颖慧 陈露君 李全凯 陈文 秦冬梅 韩博* (889)

催化发光法同时测定空气中的甲醛、苯和二氧化硫 周考文* 徐吉超 谷春秀 刘白宁 任慧荣 (898)

基于光子晶体带边效应的表面增强拉曼基底 赵文斌 王梦凡* 曾川 齐威* 苏荣欣 何志敏 (906)

基于质子转移反应-飞行时间质谱快速鉴别不同产地闽北水仙茶

..... 张丹丹 韦航 邱晓红 郑德勇 曹洁* 叶乃兴* (914)

仪器装置与实验技术

- 基于微流体脉冲驱动控制技术的电化学微流控芯片制备方法 杨利军 朱丽* 陆宝春 章维一 (922)
基于超声振动的微液滴生成装置设计与实验研究 吴必成 姚志远* (931)

《分析化学》主编杨秀荣院士荣获首届全国创新争先奖(790)

企业消息

为 HPLC 和 UPLC 方法转换发愁？中国药典|沃特世联合开放实验室为你支招！(882)、赛默飞推出采用最新毛细管电泳技术的遗传分析系统(888)、如何制作高质量的图文摘要(Graphical Abstract)(897、905)

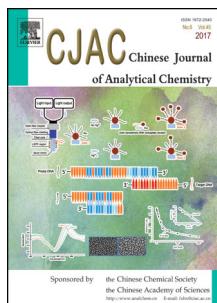
广告目录

沃特世科技(上海)有限公司(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) 海洋光学亚洲公司(文前 3) 赛默飞世尔科技(中国)有限公司(文前 4) 大连大特气体有限公司(文前 5)
赛默飞世尔科技(中国)有限公司(文前 6) 北京卓立汉光仪器有限公司(文前 7) 青岛盛瀚色谱技术有限公司(文
前 8) 北京海光仪器公司(文前 9) 青岛普仁仪器有限公司(文前 10) 德国耶拿分析仪器有限公司(文前 11) 安东
帕(上海)商贸有限公司(目录对) 瑞士万通中国有限公司(中插 1) 钢研纳克检测技术有限公司(中插 2) 化学计量
与分析科学研究所(封三) phenomenex(天津博纳艾杰尔科技有限公司)(封底)

(本期责任编辑：王重洋 编排：潘文革)

* 通讯联系人

★ 该篇~~文章~~数据电子版由 Elsevier 出版社在 ScienceDirect 上出版(<http://www.sciencedirect.com/science/journal/18722040>)



On page 785–790, Jia et al developed a localized surface plasmon resonance (LSPR) optical fiber sensor for Hg^{2+} detection based on the plasmon coupling enhancement generated by gold nanoparticles core-satellites nanostructure. This sensor has many advantages such as label-free, small size and easy integration, and can be used for the miniaturized and portable detecting system for Hg^{2+} .

CONTENTS

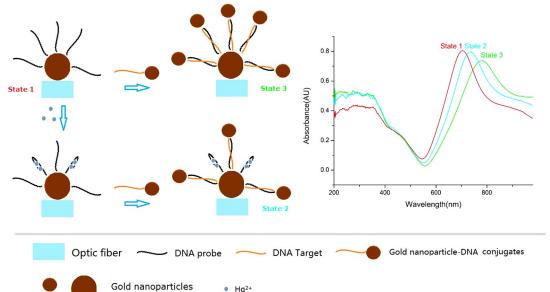
Vol. 45 No. 6 (785–935) June 2017

Scientific Papers

★ A Fiber-Optic Sensor Based on Plasmon Coupling Effects in Gold Nanoparticles Core-Satellites Nanostructures for Detection of Mercury Ions (II)

JIA Shuo, BIAN Chao, TONG Jian-Hua,
SUN Ji-Zhou, XIA Shan-Hong *

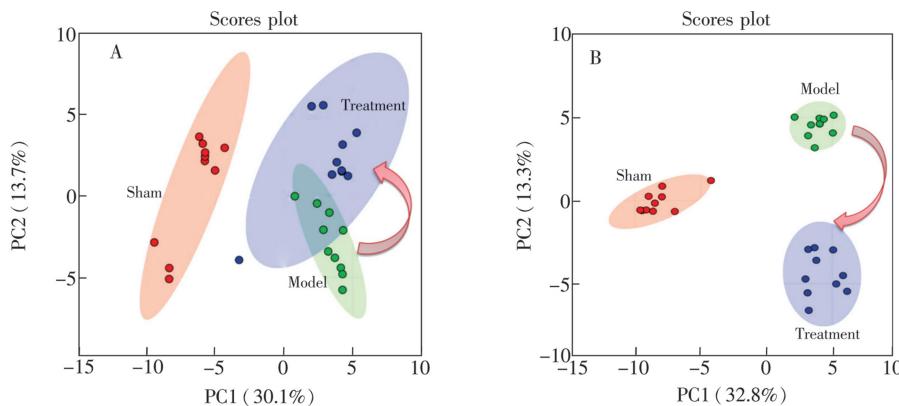
Chinese J. Anal. Chem., 2017, 45(6): 785–790



Metabolomics Research on Compound Danshen Dripping Pills in Acute Myocardial Infarction Rat

LU Qin-Wei, TONG Ling, LI Dong-Xiang, XU Feng-Guo *

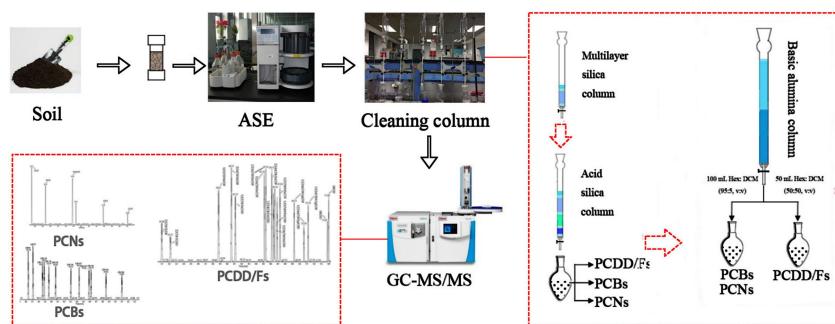
Chinese J. Anal. Chem., 2017, 45(6): 791–798



Determination of Dioxin-like Compounds in Soil by Accelerated Solvent Extraction-Silica Gel Column Cleanup-Basic Alumina Column Separation Coupled with Gas Chromatography-Triple Quadrupole Mass Spectrometry

WU Jing, HU Ji-Cheng*, MA Yu-Long, WANG Shi-Jie, WANG Ying, JIN Jun

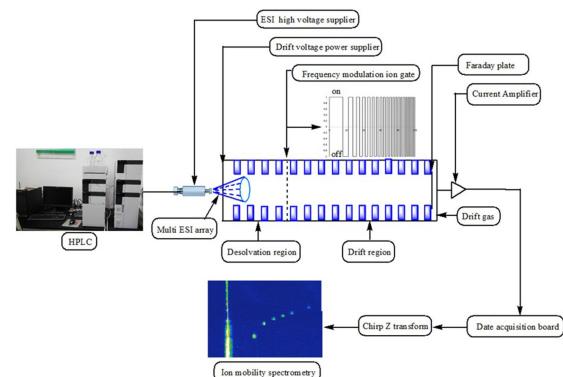
Chinese J. Anal. Chem., 2017, 45(6): 799–808



Combination of High Performance Liquid Chromatography with Nano-Electrospray Ionization Chirp Z Transform Ion Mobility Spectrometry

SHEN Hong-Ling, MENG Qing-Yan, JIA Xu,
LIU Wen-Jie*

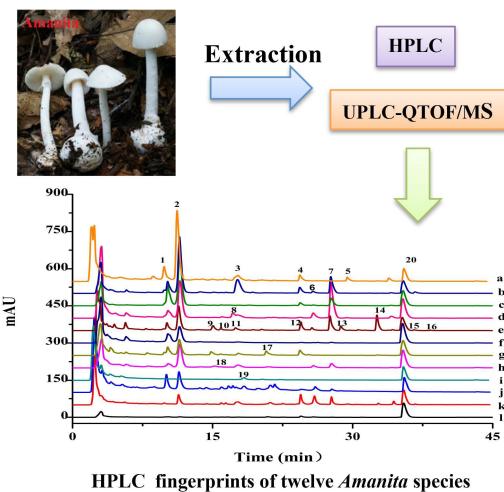
Chinese J. Anal. Chem., 2017, 45(6): 809–816



Identification and Content Difference of Toxic Peptides in 12 Kinds of Lethal *Amanita* Species

WEI Jia-Hui, WU Jian-Feng, CHEN Jia,
WU Bi-Dong, CHEN Zuo-Hong, LIU Chang*,
XIE Jian-Wei*

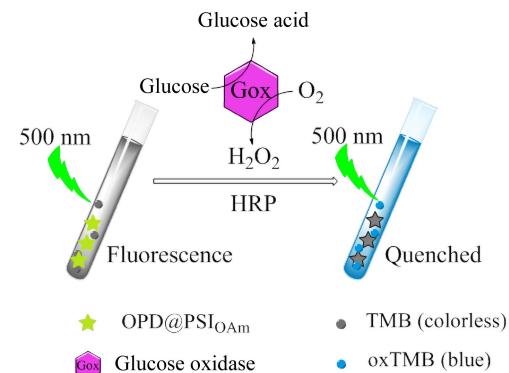
Chinese J. Anal. Chem., 2017, 45(6): 817–823



HPLC fingerprints of twelve *Amanita* species

A Novel Fluorescence Sensor for Highly Sensitive Detection of Glucose

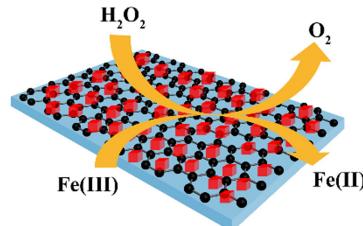
LI Ai-Qin * , GUO Chang, XU Su-Ying *
Chinese J. Anal. Chem. , 2017, 45(6) : 824–829



★ Cobalt Hexacyanoferrate-modified Graphene Platform Electrode and Its Electrochemical Sensing toward Hydrogen Peroxide

ZHAO Hong-Cai, ZHANG Pu, LI She-Hong, LUO Hong-Xia *

Chinese J. Anal. Chem. , 2017, 45(6) : 830–836

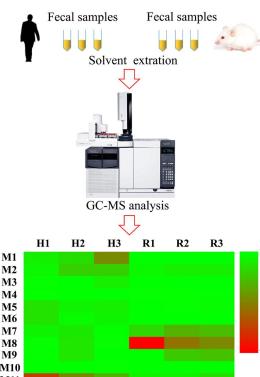


PET Graphene CoHCF

★ Analysis of Alkaline and Neutral Volatile Metabolites in Feces by Gas Chromatography-Tandem Mass Spectrometry

WU Dan, YANG Jun-Jun, YANG Fan, ZHANG Bo-Yong, DU Jie, WANG Yue-Fei * , XU Rui-Qing *

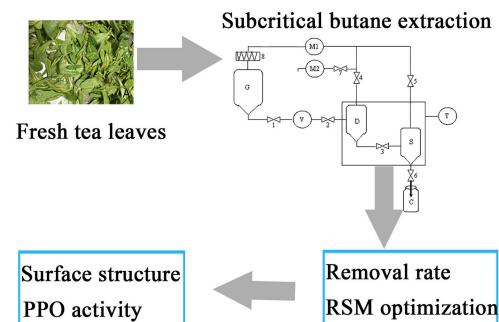
Chinese J. Anal. Chem. , 2017, 45(6) : 837–843



Subcritical Butane Extraction for Effective Removal of Abamectin in Fresh Tea Leaves

ZHANG Ya-Ting, QIN Guang-Yong, KONG Ling-Jun, ZHANG Shu-Sheng *

Chinese J. Anal. Chem. , 2017, 45(6) : 844–850

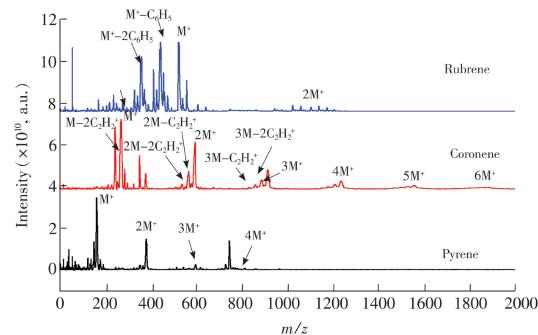


★ Investigation on Production of Cluster Ions

Using Surface-Assisted Laser Desorption/ Ionization Mass Spectrometry

NIE Long-Hui, WANG Wei-Guo *

Chinese J. Anal. Chem., 2017, 45(6): 851-855



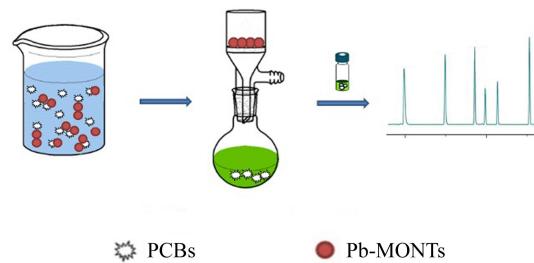
Metal Organic Nanotubes-based Dispersive Solid Phase Extraction-Gas Chromatography-Tandem Mass Spectrometry for Sensitive Analysis of Polychlorinated Biphenyls in Environmental Water Samples

HUANG Fang, SHE Xiao-Kun,

ZHOU Jia-Bin *, WANG Xia, WANG Xiao-Li,

WANG Shan-Shan, ZHAO Ru-Song *

Chinese J. Anal. Chem., 2017, 45(6): 856-861



● PCBs

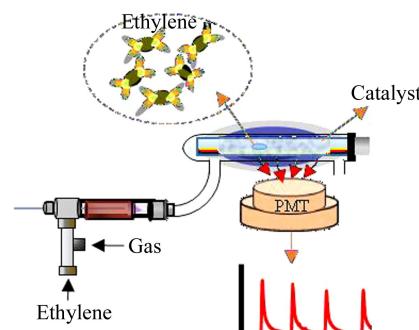
● Pb-MONTs

A Low Temperature Plasma-assisted Cataluminescence Sensor for Detection of Ethylene

SHAO Kang, HAN Fei-Fei, ZHAO Xue,

WANG Shu-Wei, LONG Zi, NA Na *

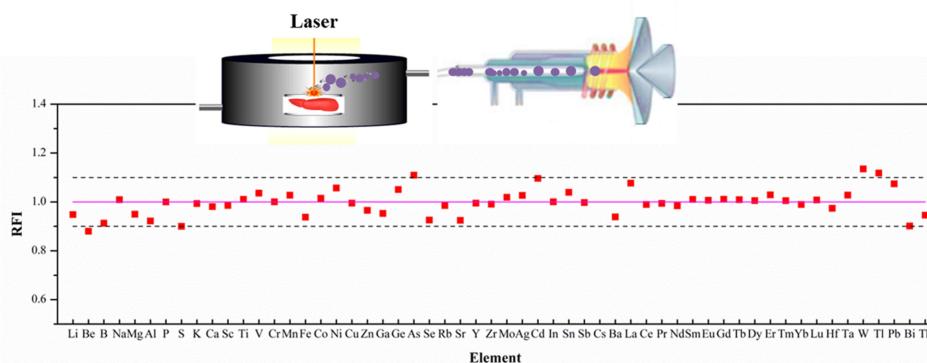
Chinese J. Anal. Chem., 2017, 45(6): 862-867



Elemental Fractionation Studies of Biological Samples Using Laser Ablation Inductively Coupled Plasma Mass Spectrometry

LI Qing, ZHANG Guo-Xia, CHEN Yi-Rui, WANG Zheng *, DING Chuan-Xian

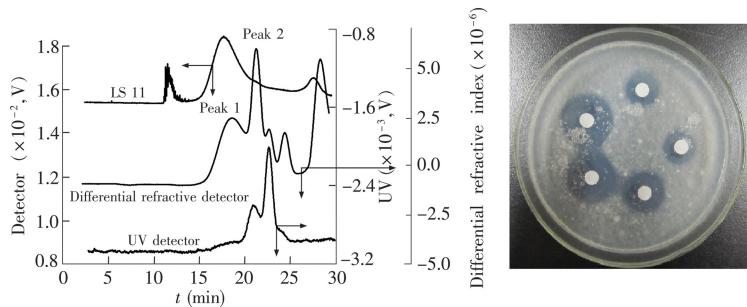
Chinese J. Anal. Chem., 2017, 45(6): 868-873



Synthesis of β -Cyclodextrin-N-vinyl-2-pyrrolidone Water-Soluble Copolymer and Its Adsorption of Hydrophobic Drugs

LI Yong-Fu, HA Yi-Ming*, GUO Qin, LI Qing-Peng

Chinese J. Anal. Chem., 2017, 45(6): 874–882

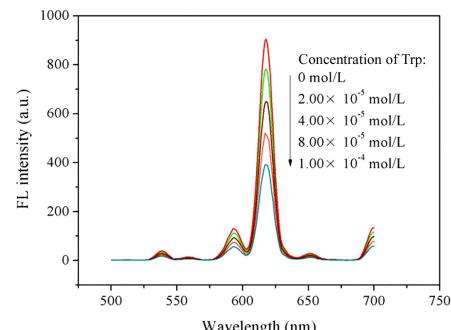


Determination of Tryptophan Based on Inner Filter Effect of Fluorescent Yttrium Vanadate: Europium Nanoprobes

NIU Jian-Li, YU Yong-Li*, CAO Yan-Jie,

WANG Meng

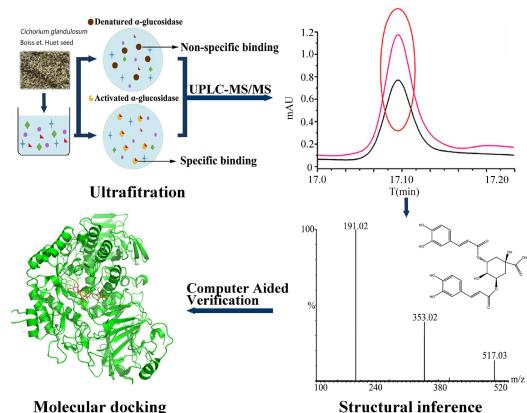
Chinese J. Anal. Chem., 2017, 45(6): 883–888



Screening of High-Affinity α -Glucosidase Inhibitors from *Cichorium Glandulosum* Boiss. et Hout Seed Based on Ultrafiltration Liquid Chromatography-Mass Spectrometry and Molecular Docking

CHEN Hai-Jun, QIN Hui-Yu, LONG Fei, YU Wei, WANG Ying-Hui, CHEN Lu-Jun, LI Quan-Kai, CHEN Wen, QIN Dong-Mei, HAN Bo*

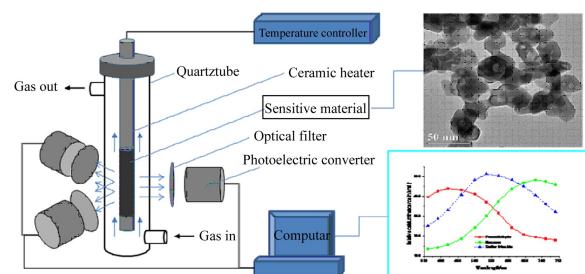
Chinese J. Anal. Chem., 2017, 45(6): 889–897



Simultaneous Determination of Formaldehyde, Benzene and Sulfur Dioxide In Air by Cataluminescence

ZHOU Kao-Wen*, XU Ji-Chao, GU Chun-Xiu, LIU Bai-Ning, REN Hui-Rong

Chinese J. Anal. Chem., 2017, 45(6): 898–905



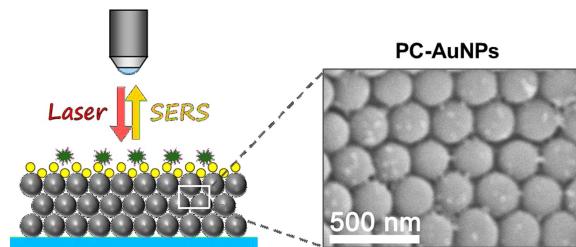
Surface Enhanced Raman Scattering Substrate Base on Band Gap Edge Effect of Photonic Crystal

ZHAO Wen-Bin, WANG Meng-Fan*,

ZENG Chuan, QI Wei*, SU Rong-Xin,

HE Zhi-Min

Chinese J. Anal. Chem., 2017, 45(6): 906–913

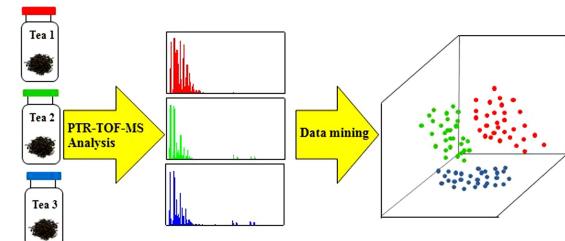


Rapid Identification of Shuixian Tea in Northern Fujian from Different Regions by Proton Transfer Reaction-Time of Flight-Mass Spectrometry

ZHANG Dan-Dan, WEI Hang, QIU Xiao-Hong,

ZHENG De-Yong, CAO Jie*, YE Nai-Xing*

Chinese J. Anal. Chem., 2017, 45(6): 914–921



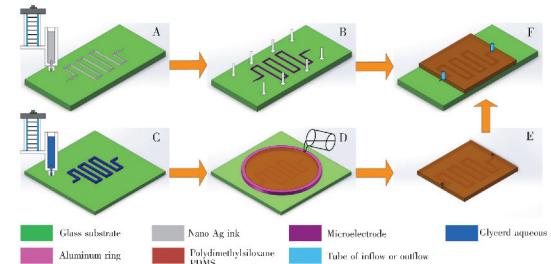
Experimental Technique and Instrument

Preparation of Electrochemical Microfluidic Device Based on Pulse Driving and Controlling of Microfluids Technique

YANG Li-Jun, ZHU Li*, LU Bao-Chun,

ZHANG Wei-Yi

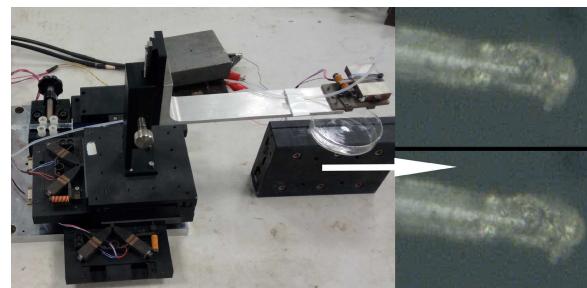
Chinese J. Anal. Chem., 2017, 45(6): 922–930



Design and Experiment Study of Micro Droplet Generator Based on Ultrasonic Vibration

WU Bi-Cheng, YAO Zhi-Yuan*

Chinese J. Anal. Chem., 2017, 45(6): 931–935



* The author to whom the correspondence should be addressed

★ The English electronic version of the article is published by Elsevier on ScienceDirect (<http://www.sciencedirect.com/science/journal/18722040>)

分析化学
FENXI HUAXUE

(月刊, 1972 年创刊)

第45卷 第6期 2017年6月

**CHINESE JOURNAL OF
ANALYTICAL CHEMISTRY**

(Monthly, Started 1972)

Vol. 45 No. 6 June 2017

编 辑	《分析化学》编委会	Edited by	Editorial Board of Chinese Journal of Analytical Chemistry
	地址: 长春人民大街 5625 号 邮政编码: 130022		Add: 5625 Renmin Street, Changchun 130022, China
	电话: 0431-85262017		Tel: 0431-85262017
	http://www.analchem.cn		http://www.analchem.cn
	E-mail: fxhx@ciac.ac.cn		E-mail: fxhx@ciac.ac.cn
主 编	杨秀荣	Editor-in-Chief	YANG Xiu-Rong
主 管	中国科学院	Superintended by	Chinese Academy of Sciences
主 办	中国化学会 中国科学院长春应用化学研究所	Sponsored by	Chinese Chemical Society Changchun Institute of Applied Chemistry, Chinese Academy of Sciences
出 版	科学出版社	Published by	Science Press
	地址: 北京东黄城根北街 16 号 邮政编码: 100717		Add: 16 Donghuangchenggen North Street, Beijing 100717, China
印 刷 装 订	吉林省保隆冠彩印刷有限公司	Printed by	Jilin Baolongguancai Printing Co., Ltd.
订 购	国内: 全国各地邮政局	Subscriptions	Local Post Offices
国 内 总 发 行	吉林省报刊发行局	Foreign	China International Book Trading Corporation
国 外 发 行	中国国际图书贸易总公司		Add: P.O. Box 399, Beijing 100044, China
	地址: 北京 399 信箱 邮政编码 100044		

国内统一刊号: CN 22-1125/O6 国内邮发代号: 12-6 国外发行: M336 定价: 45.00 元

广告经营许可证号 2200004000094 广告代理: 北京行胜言广告有限公司 电话: 010-51289220 传真: 010-82781370