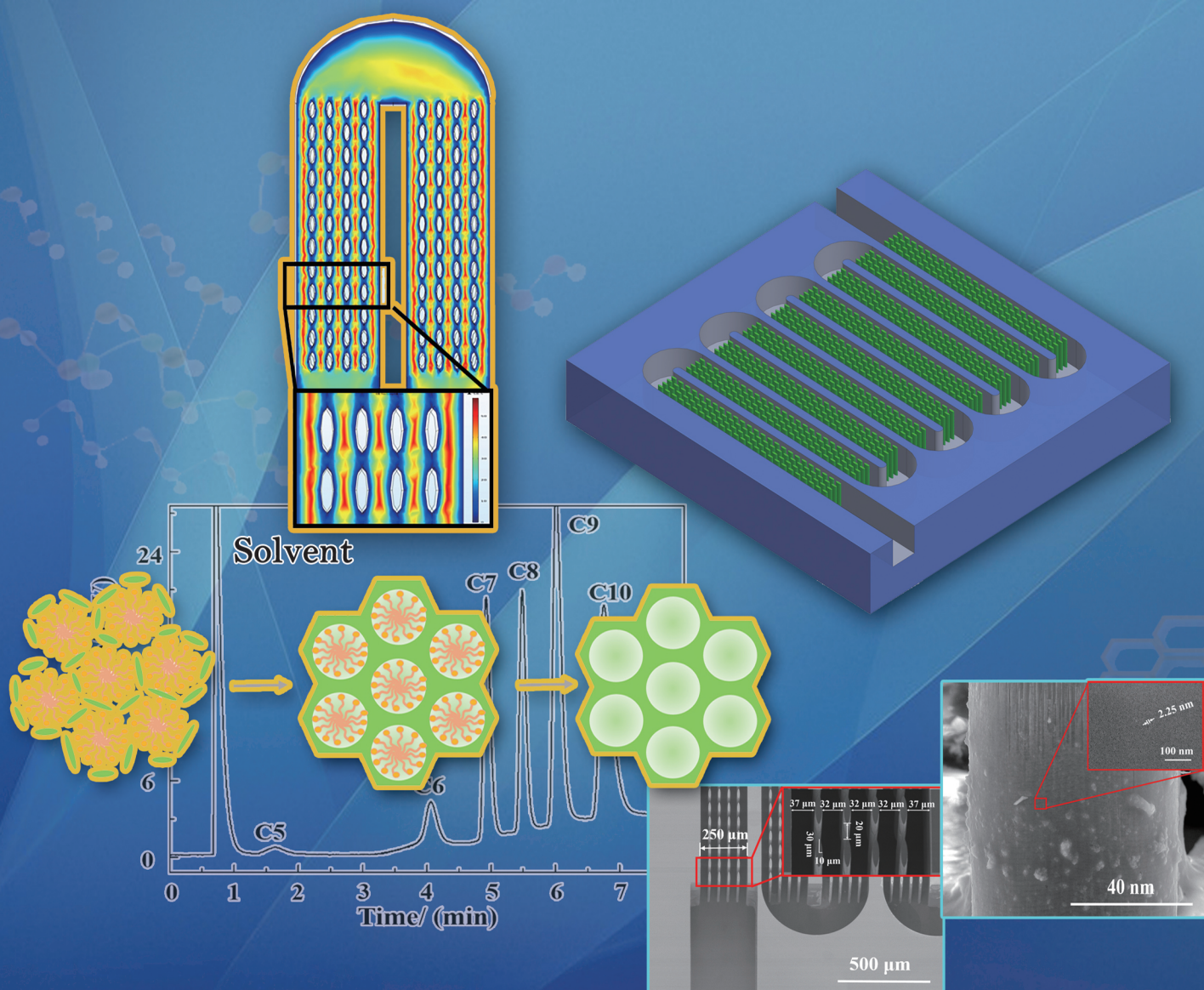


CJAC

Chinese Journal of Analytical Chemistry

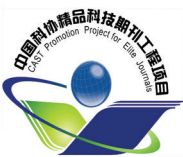


Sponsored by

the Chinese Chemical Society

the Chinese Academy of Sciences

<http://www.analchem.cn> E-mail: fxhx@ciac.ac.cn



分析化学

第 47 卷 第 6 期 2019 年 6 月

目 次

评述与进展

- ★微液滴生成方法研究进展 魏玉瑶 孙子乔* 任吴慧 李雷* (795)
- ★胶束电动色谱技术在蛋白质分离分析中的应用研究进展
..... 高凡 王晓飞 张博* (805)

研究报告

- 氧化石墨烯接枝硅胶整体柱制备及在多环芳烃检测中的应用
..... 冯勇 彭传云 张少文* 高亚辉 杨瑞先 刘慧宏* (814)
- 利用主客体化学制备水溶性上转换纳米药物及在肿瘤诊疗中的应用
..... 邵帅 丁彬彬 朱忠丽* 马平安 林君* (823)
- ★以介孔二氧化硅为固定相的高性能微色谱柱 杨雪蕾 赵斌 冯飞* 周海梅 杨恒 李昕欣 (832)
- 基于 3D 打印牺牲阳模的异型截面微流道便捷加工 唐文来* 樊宁 李宗安 项楠 杨继全 (838)
- 卡马西平印迹吸附剂的分子模拟与吸附机理 梁建军* 何芹 郑怀礼 向冰彦 (846)
- 基于基因芯片的荧光分析方法在甲状腺乳头状癌相关 BRAFV600E 突变高灵敏及特异性检测中的应用
..... 魏佳 高嘉雪 王瑶琪 王振新* 孟宪璞* (855)
- 壳聚糖/海藻酸钠/多孔淀粉-茶树精油微胶囊制备及释放性能分析
..... 张晓明* 朱良奎 成蕾 袁碧贞 (862)
- 一种高灵敏检测贝类中大田软海绵酸的可抛式核酸适配体传感器
..... 陈佳琦 吴海燕 张旭志 郑关超 孙晓杰 郭萌萌* 谭志军* 翟毓秀 牟海津 (869)
- ★固相支撑液液萃取-液相色谱-串联质谱法测定尿液中 10 种单羟基多环芳烃
..... 商婷 赵灵娟 李佩 曾祥英 于志强* (876)
- 灭多威分子印迹光子晶体传感器的制备及应用 张琪 张红 周强 徐炎硕 王颜红* (883)
- 减排管控厦门市大气中挥发性有机物浓度变化特征及来源分析
..... 庄壹 成春雷* 翁翔 陈进生 吕效谱 李梅* 周振 (890)
- 基于核酸外切酶 III 辅助双循环等温信号放大的高灵敏 Hg^{2+} 传感方法研究
..... 张何* 王青 杨梅 傅昕 (899)
- ★大气气溶胶硝酸盐中稳定氮氧同位素比值测定
..... 赵祝钰 曹芳* 张雯淇 翟晓瑶 方言 范美益 章炎麟 (907)
- 超高分辨质谱研究离子源内气体氛围对电喷雾电离呼出气的影响
..... 杜睿 张羽玲 曾嘉发 方明亮 Sasho Gligorovski 周振 李雪* (916)
- 基于电喷雾-四极杆-飞行时间质谱的神经节苷脂的结构解析
..... 张华林 郭志谋 王联芝 金高娃 邹丽红 吕园园 马明辉 闫竞宇* 段正超* 梁鑫森 (925)

高场不对称波形离子迁移谱分离检测 3 种二甲苯同分异构体
..... 王 晗 刘友江 李 山 徐 青 胡 俊 马 贺 陈池来* (933)

基于近红外光谱的红提维生素 C 含量、糖度及总酸含量无损检测方法
..... 高 升 王巧华* 李庆旭 施 行 (941)

木兰花碱的荧光性质及其在中药分析中的应用研究
..... 曹津津 孙启瑞 李文红 宋冉冉 曹倩玉 王 可 魏永巨* (950)

基于神经化学分析研究炮制对人参和西洋参药性的影响 黄 鑫* 王 妮 张 娜 赵 皓 刘淑莹* (957)

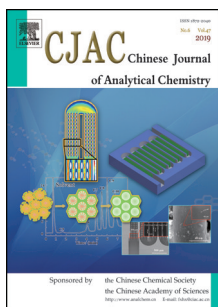
企业消息

赛默飞与锦斯生物签署战略合作,共建基因治疗基地推动行业发展(813)、先进检测技术如何让我们不再担忧化妆品添加剂问题(831, 889)、沃特世发布中药 Q-marker“时”-“空”维度全新解决方案(949)

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) 永华化学科技(江苏)有限公司(文前3) 青岛盛瀚色谱技术有限公司(文前4) 普发真空技术(上海)有限公司(文前5) 德国耶拿分析仪器有限公司(文前6) 青岛普仁仪器有限公司(文前7) 艾卡(广州)设备有限公司(文前8) 中国实验室用途 ODS 管理平台(文前9) 安东帕(上海)商贸有限公司(目录对) 瑞士万通中国有限公司(文中1) 钢研纳克检测技术股份有限公司(文中2) 北京海光仪器公司(封三) 布鲁克(北京)科技有限公司(封底)

(本期责任编辑:于桂红 编排:潘文革)



On page 832 – 837, Yang et al fabricated a micro-fabricated semi-packed gas chromatographic column embedded with micro-elliptical pillars using mesoporous silica film as stationary phase, which could realize the baseline separation of alkanes (C5–C10) and the number of theoretical plates of octane was up to 14458 plates.

CONTENTS

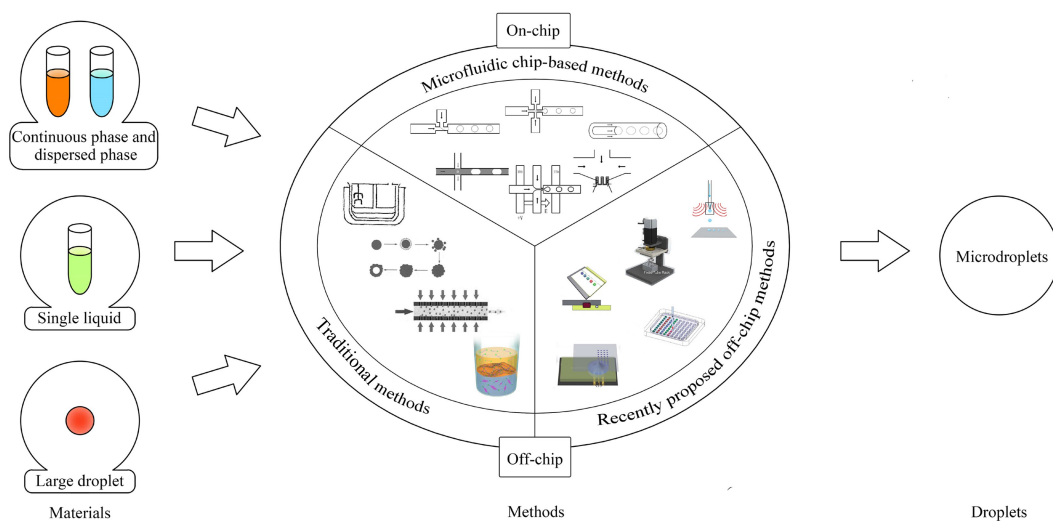
Vol. 47 No. 6 (795–963) June 2019

Review and Progress

★ Advances in Microdroplet Generation Methods

WEI Yu-Yao, SUN Zi-Qiao*, REN Hao-Hui, LI Lei*

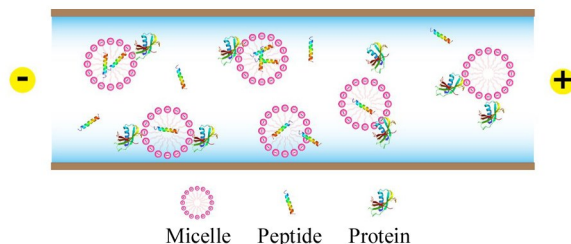
Chinese J. Anal. Chem., 2019, 47(6): 795–804



★ Research and Application Progress of Micellar Electrokinetic Chromatography in Separation of Proteins

GAO Fan, WANG Xiao-Fei, ZHANG Bo*

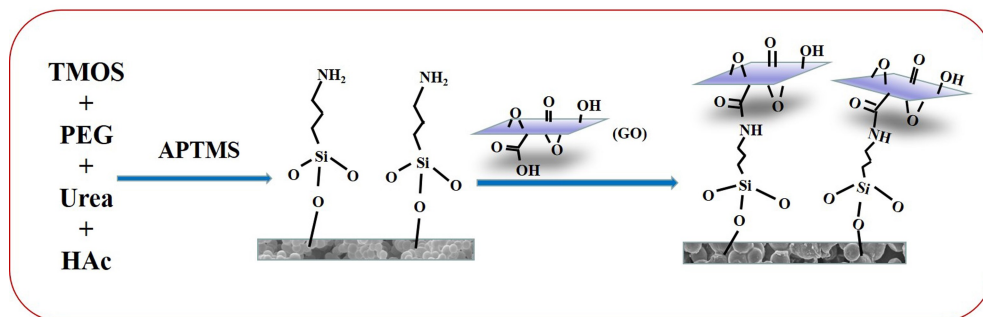
Chinese J. Anal. Chem., 2019, 47(6): 805–813



Preparation of Graphene Oxide Grafted Silica Monolith and Application in Determination of Polycyclic Aromatic Hydrocarbons

FENG Yong, PENG Chuan-Yun, ZHANG Shao-Wen*, GAO Ya-Hui, YANG Rui-Xian, LIU Hui-Hong*

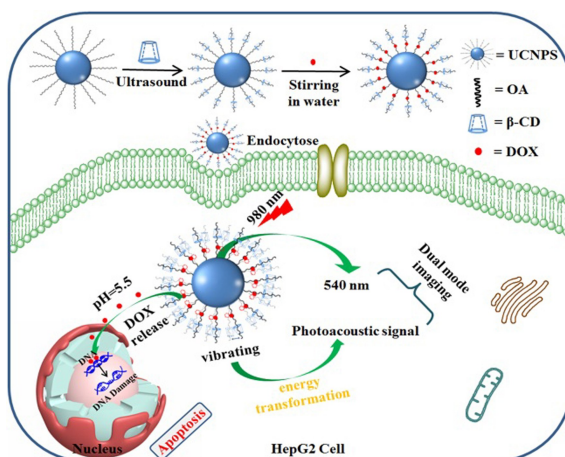
Chinese J. Anal. Chem., 2019, 47(6): 814–822



Preparation of Water-soluble Up-conversion Nano-drug by Host-Guest Chemistry and Its Application in Tumor Diagnosis and Treatment

SHAO Shuai, DING Bin-Bin, ZHU Zhong-Li*, MA Ping-An, LIN Jun*

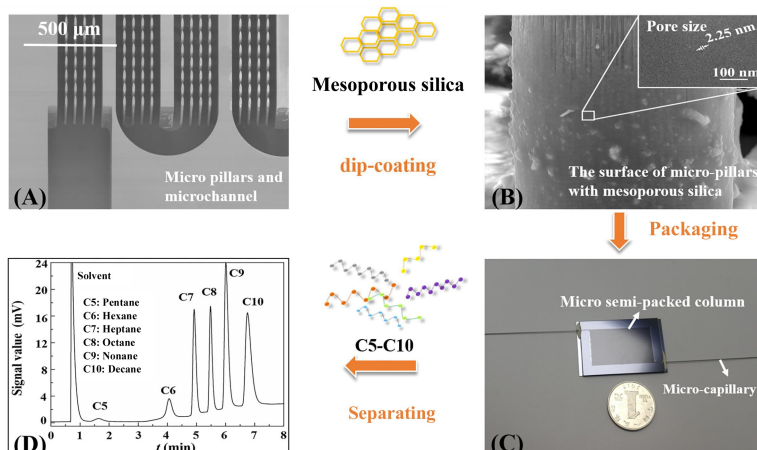
Chinese J. Anal. Chem., 2019, 47(6): 823–831



★ High Performance Micro Gas Chromatography Column Using Mesoporous Silica as Stationary Phase

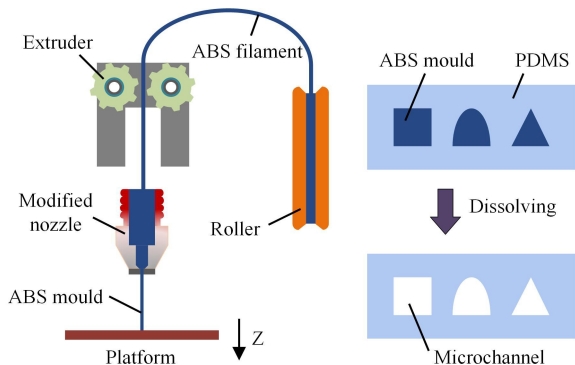
YANG Xue-Lei, ZHAO Bin, FENG Fei*, ZHOU Hai-Mei, YANG Heng, LI Xin-Xin

Chinese J. Anal. Chem., 2019, 47(6): 832–837



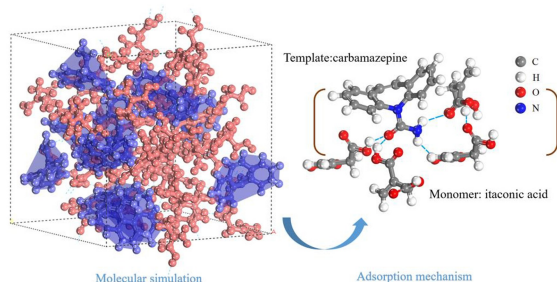
Facile Fabrication of Microchannel with Unconventional Cross-Section Using 3D Printed Sacrificial Mould

TANG Wen-Lai^{*}, FAN Ning, LI Zong-An,
XIANG Nan, YANG Ji-Quan
Chinese J. Anal. Chem., **2019**, 47(6): 838–845



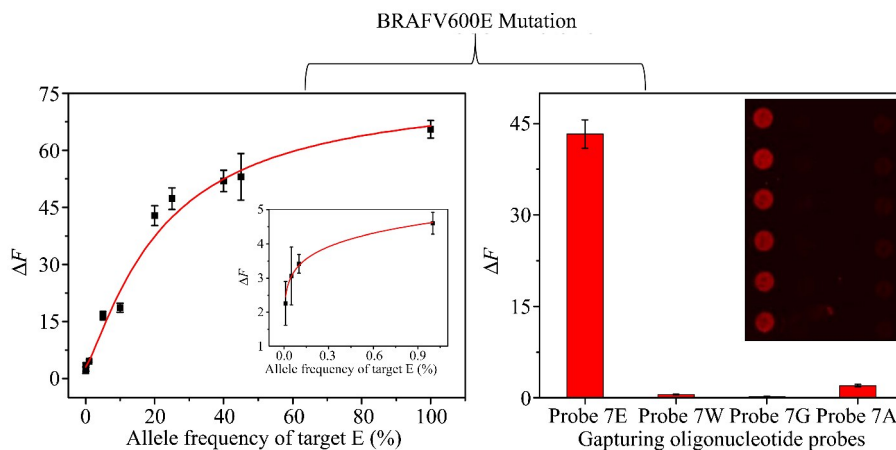
Molecular Simulation and Adsorption Mechanism of Carbamazepine Imprinted Adsorbent

LIANG Jian-Jun^{*}, HE Qin, ZHENG Huai-Li,
XIANG Bing-Yan
Chinese J. Anal. Chem., **2019**, 47(6): 846–854



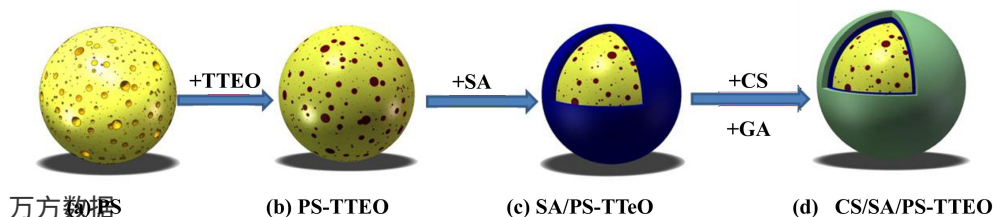
Specific and Sensitive Detection of BRAFV600E Mutations in Papillary Thyroid Carcinoma by Oligonucleotide Microarray-based Fluorescence Assay

WEI Jia, GAO Jia-Xue, WANG Yao-Qi, WANG Zhen-Xin^{*}, MENG Xian-Ying^{*}
Chinese J. Anal. Chem., **2019**, 47(6): 855–861



Preparation and Release Behavior Analysis of Chitosan/Sodium Alginate/Porous Starch-Tea Tree Essential Oil Microcapsule

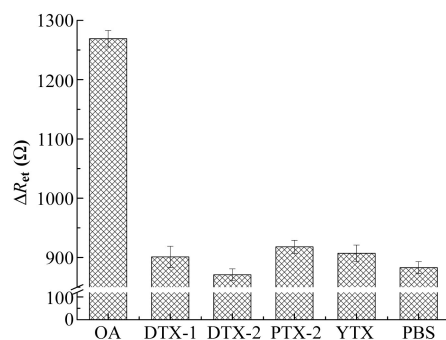
ZHANG Xiao-Ming^{*}, ZHU Liang-Kui, CHENG Lei, YUAN Bi-Zhen
Chinese J. Anal. Chem., **2019**, 47(6): 862–868



A Disposable Aptasensor for Sensitive Detection of Okadaic Acid in Shellfish

CHEN Jia-Qi, WU Hai-Yan, ZHANG Xu-Zhi, ZHENG Guan-Chao, SUN Xiao-Jie, GUO Meng-Meng*, TAN Zhi-Jun*, ZHAI Yu-Xiu, MU Hai-Jin

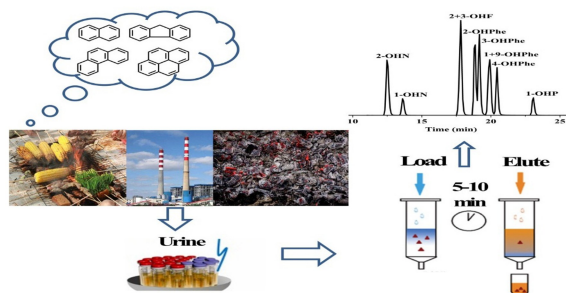
Chinese J. Anal. Chem., **2019**, 47(6): 869–875



★ Determination of 10 Kinds of Monohydroxylated Polycyclic Aromatic Hydrocarbons in Human Urine by Supported Liquid Extraction Followed by Liquid Chromatography-Tandem Mass Spectrometry

SHANG Ting, ZHAO Ling-Juan, LI Pei, ZENG Xiang-Ying, YU Zhi-Qiang*

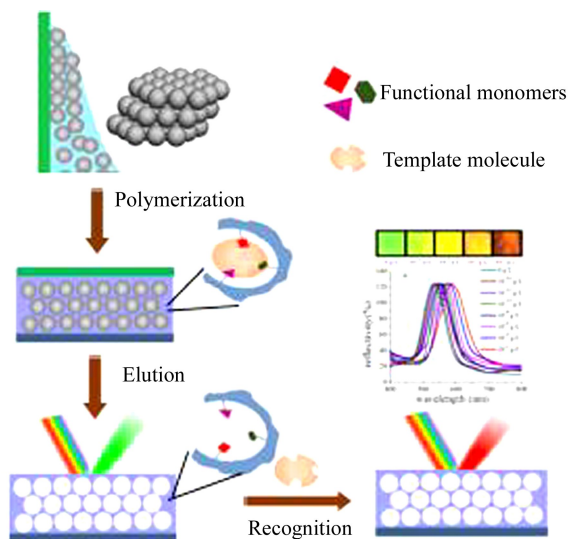
Chinese J. Anal. Chem., **2019**, 47(6): 876–882



Preparation and Application of Methomyl Molecularly Imprinted Photonic Crystal Sensor

ZHANG Qi, ZHANG Hong, ZHOU Qiang, XU Yan-Shuo, WANG Yan-Hong*

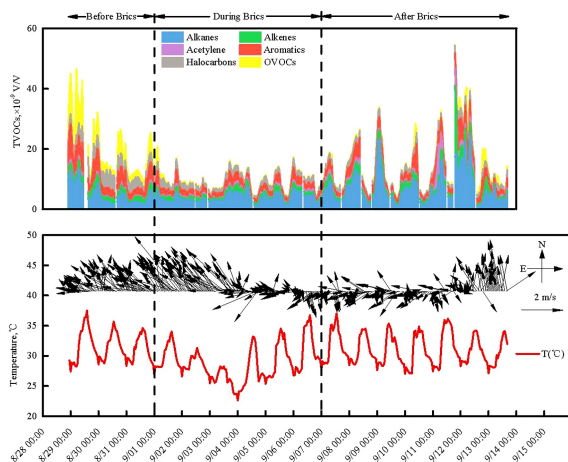
Chinese J. Anal. Chem., **2019**, 47(6): 883–889



Characteristics and Source Apportionment of Atmospheric Volatile Organic Compounds During Emission Control Period in Xiamen

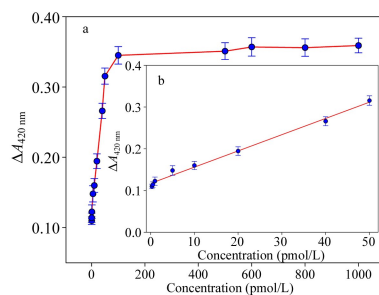
ZHUANG Yi, CHENG Chun-Lei*, WENG Xiang, CHEN Jin-Sheng, LYU Xiao-Pu, LI Mei*, ZHOU Zhen

Chinese J. Anal. Chem., **2019**, 47(6): 890–898



Exonuclease III-assisted Dual-Cycle Isothermal Signal Amplification for Highly Sensitive “Turn-on” Type Detection of Mercury Ion (II)

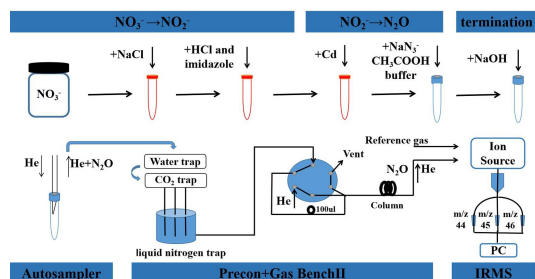
ZHANG He^{*}, WANG Qing, YANG Mei, FU Xin
Chinese J. Anal. Chem., **2019**, 47(6): 899–906



★ Determination of Stable Nitrogen and Oxygen Isotope Ratios in Atmospheric Aerosol Nitrates

ZHAO Zhu-Yu, CAO Fang^{*}, ZHANG Wen-Qi, ZHAI Xiao-Yao, FANG Yan, FAN Mei-Yi, ZHANG Yan-Lin

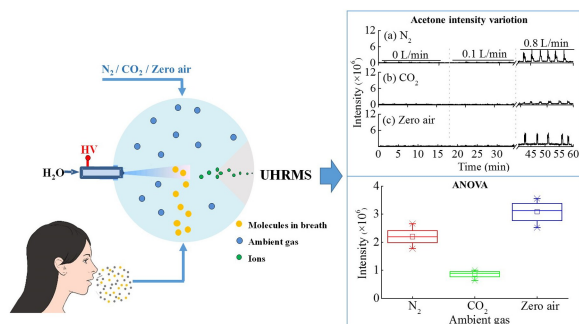
Chinese J. Anal. Chem., **2019**, 47(6): 907–915



Influence of Ambient Gases on Detection of Exhaled Gas in Secondary Electrospray Source by Ultra-High Resolution Mass Spectrometry

DU Rui, ZHANG Yu-Ling, ZENG Jia-Fa, FANG Ming-Liang, Sasho Gligorovski, ZHOU Zhen, LI Xue^{*}

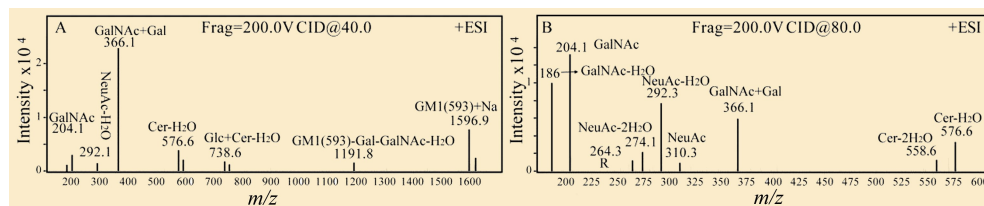
Chinese J. Anal. Chem., **2019**, 47(6): 916–924



Structural Analysis of Gangliosides Based on Electrospray Quadrupole Time-of-Flight Mass Spectrometry

ZHANG Hua-Lin, GUO Zhi-Mou, WANG Lian-Zhi, JIN Gao-Wa, ZOU Li-Hong, LYU Yuan-Yuan, MA Ming-Hui, YAN Jing-Yu^{*}, DUAN Zheng-Chao^{*}, LIANG Xin-Miao

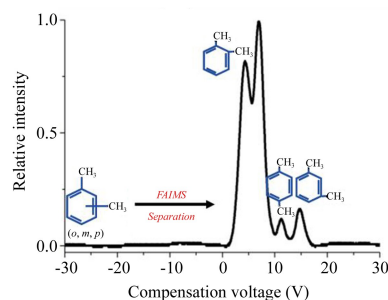
Chinese J. Anal. Chem., **2019**, 47(6): 925–932



Simultaneous Detection of *o*-, *m*-, *p*-Xylene by High-field Asymmetric Waveform Ion Mobility Spectrometry

WANG Han, LIU You-Jiang, LI Shan, XU Qing, HU Jun, MA He, CHEN Chi-Lai^{*}

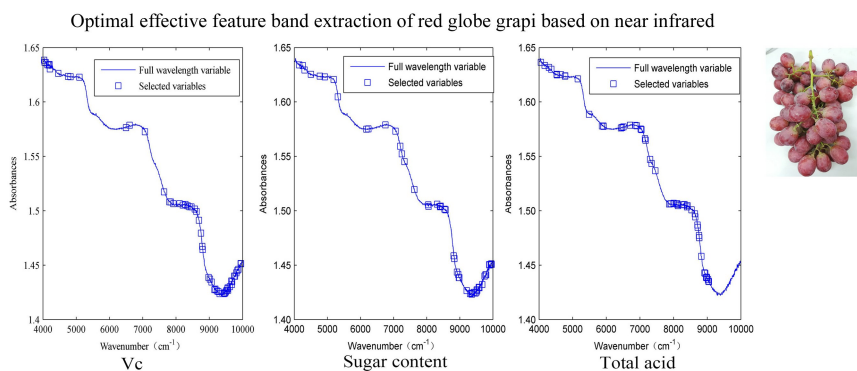
Chinese J. Anal. Chem., **2019**, 47(6): 933–940



Non-destructive Detection of Vitamin C, Sugar Content and Total Acidity of Red Globe Grape Based on Near-Infrared Spectroscopy

GAO Sheng, WANG Qiao-Hua*, LI Qing-Xu, SHI Hang

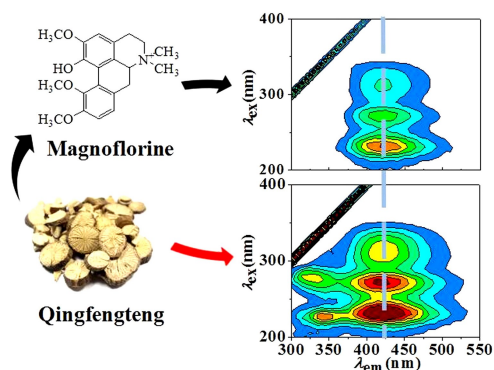
Chinese J. Anal. Chem., 2019, 47(6): 941–949



Fluorescence Properties of Magnoflorine and Its Application in Analysis of Traditional Chinese Medicine

CAO Jin-Jin, SUN Qi-Rui, LI Wen-Hong, SONG Ran-Ran, CAO Qian-Yu, WANG Ke, WEI Yong-Ju*

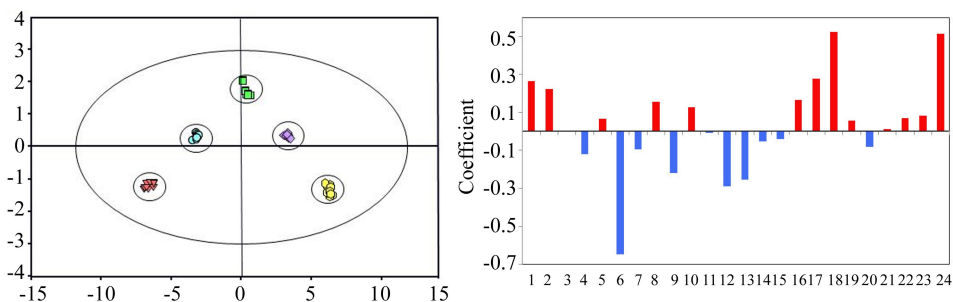
Chinese J. Anal. Chem., 2019, 47(6): 950–956



Influence of Process on Ginseng and American Ginseng Property by Neurochemistry Analysis

HUANG Xin*, WANG Ni, ZHANG Na, YUE Hao, LIU Shu-Ying*

Chinese J. Anal. Chem., 2019, 47(6): 957–963



* 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/journal/chinese-journal-of-analytical-chemistry>)

Sponsored by Chinese Chemical Society

Changchun Institute of Applied Chemistry, Chinese Academy of Sciences