

目 次

研究报告与研究简报

- 125 紫外-可见光谱法检测十二烷基苯磺酸钠分散铁酸锌薄膜的光学气敏性能.....
..... 燕 音, 帕提曼·尼扎木丁, 朱 敏, 阿布力孜·伊米提*
- 129 分散固相萃取-气相色谱串联质谱法快速测定血清中6种新型溴系阻燃剂.....
..... 王翼飞, 陈 田, 张淑华, 施致雄*
- 134 基于氧化石墨烯作为传感平台的DNA电化学阻抗谱传感器制备 董 笑*, 张玉忠
- 138 毛细管电泳化学发光法测定人血清中的万古霉素和去甲万古霉素.....
..... 李 享, 王 玮, 檀笑昕, 李 楠, 徐向东, 康维钧*
- 143 高分辨质谱快速检测人体尿液中常见毒品.....
..... 李 双, 曹苏仙, 杨 亮, 钟莺莺, 王传现, 李晓虹, 刘 夏, 陈树兵*
- 147 X射线荧光光谱无标样分析在轻合金中的应用 张红菊*, 张丁非, 余大亮, 郭胜锋
- 150 定量核磁共振技术测定噬菌酯的含量 张奉民*, 丁克鸿, 陶文波
- 154 基质工作曲线法和标准加入法测定鸡肝粉中的环丙沙星.....
..... 马立利*, 曹 沔, 姜 于, 王嘉琦, 贾 丽, 范筱京, 胡艳霞
- 160 利用SERS检测盐酸哌替啶和盐酸吗啡注射液
..... 韩斯琴高娃, 包 琳, 张美玲, 沙轩宇, 哈斯乌力吉*
- 164 HPLC-MS/MS法同时测定马尾松松针中水杨酸和茉莉酸
..... 钟冬莲*, 任传义, 李祖光, 刘青华, 莫润宏, 沈丹玉, 汤富彬*
- 168 可逆加成断裂链转移法制备阿司匹林印迹材料及性能评价 苏立强*, 周 磊, 韩 爽
- 172 离子交换色谱-荧光检测法测定化妆品中苯海拉明及串联质谱确证.....
..... 何 强*, 李 莹, 张 璐, 孔祥虹, 姜 敏, 刘晓盼
- 177 同位素稀释气相色谱-质谱/质谱法测定茶叶中蒽醌残留量
..... 谢 文*, 黄超群, 陈 丽, 申屠炎, 洪 灯, 楼成杰, 谢韵第, 何建敏, 侯建波, 邓晓军, 于卓然
- 182 $\text{Fe}_3\text{O}_4 @ \text{HKUST}-\text{4}-\text{C}_{18}$ 的制备及用于环境水样中多环芳烃的分析.....
..... 陈祥明*, 张 聪, 王丹红, 李 捷, 钱 疆, 谢白璐, 石祥程
- 189 基于背景荧光猝灭-免疫层析法黄曲霉毒素B₁检测卡的研制
..... 吴晓霞, 周晓燕, 李久彤, 王玉文, 李新霞*
- 194 微波消解-ICP-AES法测定拟薄水铝石中11种微量元素或痕量杂质元素
..... 马兵兵*, 弥海鹏, 周西林, 苏中华, 王亚森, 邓 雄

*联系人

- 198 碱消解 - 火焰原子吸收法测定土壤和固体废物中六价铬 林海兰, 谢沙, 文卓琼*, 朱日龙, 刘桐, 罗岳平
- 203 ICP-AES 法测定不锈钢中高含量镍和铬的光谱干扰和校正 胡璇*, 石磊
- 207 用玫瑰茎制备多孔炭及其水溶液中对铬(VI)的吸附研究 陈敬梓, 黄璧成, 黄雅钦*
- 212 以铜(II)为媒介的分子光谱法测定硫酸特布他林 林瑜*, 覃芬芬
- 216 高效液相色谱法同时测定血浆中吲哚美辛和布洛芬的浓度 文琼芳, 丁世家, 赵华*
- 220 气相色谱 - 串联质谱同位素内标法测定中草药中 124 种农药及其代谢物残留 王建国*, 万丽葵, 魏玉霞, 刘晓峰, 郭虹, 杨玉竹, 李博
- 226 微波辅助萃取 - 气相色谱质谱法测定聚合物中 9 种有机磷酸酯化合物 林殷*, 杜凤娟, 王璐, 林鹏辉
- 231 超高效液相色谱 - 串联质谱法测定电子烟液中烟碱 许鸿辉, 陈茜*, 林志惠, 叶雨萌, 叶淋泉, 幸苑娜, 陈泽勇
- 235 UHPLC-MS/MS 法测定山银花中黄曲霉毒素及其裂解规律 吴寒秋, 许秀丽, 杨晓宇, 李建恒*, 张峰*

定期评述

- 241 国内食品中农药多残留检测技术的研究进展 董亚蕾, 刘文婧, 曹进*, 王钢力*, 李向军

1982 年创刊 月刊 **分析试验室** **Chinese Journal of Analysis Laboratory**

2017 年 第 36 卷 第 2 期

2017 Vol. 36 No. 2

Monthly

主 管 中国科学技术协会
 主 办 中国有色金属学会 北京有色金属研究总院
 编辑出版 有研博翰(北京)出版有限公司
 (北京新街口外大街 2 号, 邮政编码: 100088,
 电话: 010 - 82013328)
 网址: www.analab.cn
 E-mail: analysislab@263.net
 主 编 屠海令
 印 刷 北京汉玉印刷有限公司
 国内总发行 北京市报刊发行局
 国内订购 全国各地邮局, 邮发代号 82-431
 国外发行 中国国际图书贸易总公司(北京 399 信箱)
 国外代号 M848

Sponsored by The Nonferrous Metals Society of China
 Beijing General Research Institute for Nonferrous Metals
Edited and Published by GRINM Bohan (Beijing)
 Publishing Co., Ltd. (No. 2, Xinjiekouwai Street, Beijing
 100088, China)
Editor-in-chief TU Hai-ling
Overseas Distributor China International Book Trading
 Corporation (P. O. Box 399, Beijing 100044, China)
Code No. M848
E-mail analysislab@263.net
Homepage http://www.analab.cn

责任编辑: 孙臣良 赵谢群 田春霞

刊号: ISSN 1000-0720/CN 11-2017/TF

2017 年 2 月出版 定价: 25.00 元

广告经营许可证: 京西工商广字 0441 号

CONTENTS

Scientific Papers and Research Notes

- 125 Optical gas-sensitivity of SDBS-dispersed zinc ferrite thin films based on UV-spectroscopy YAN Yin, Patima Nizamidin, ZHU Min and Abliz Yimit *
- 129 Determination of 6 novel brominated flame retardants in serum by dispersive solid phase extraction combined with gas chromatography tandem mass spectrometry WANG Yifei, CHEN Tian, ZHANG Shu-hua and SHI Zhi-xiong *
- 134 Fabrication of electrochemical DNA impedance biosensor based on graphene oxide as sensing platform DONG Xiao * and ZHANG Yu-zhong
- 138 Determination of vancomycin and norvancomycin in human serum by capillary electrophoresis-chemiluminescence LI Xiang, WANG Wei, TAN Xiao-xin, LI Nan, XU Xiang-dong and KANG Wei-jun *
- 143 Determination of common abused drugs in urine by high-resolution MS LI Shuang, CAO Su-xian, YANG Liang, ZHONG Ying-ying, WANG Chuan-xian, LI Xiao-hong, LIU Xia and CHEN Shu-bing *
- 147 Application of X ray fluorescence spectrometer in the determination of light alloys ZHANG Hong-ju *, ZHANG Ding-fei, YU Da-liang and GUO Sheng-feng
- 150 Determination of azoxystrobin content by quantitative nuclear magnetic resonance ZHANG Feng-min *, DING Ke-hong and TAO Wen-bo
- 154 Comparison of matrix working curve method and standard addition method for the determination of ciprofloxacin in chicken liver powder MA Li-li *, CAO Yuan, JIANG Yu, WANG Jia-qi, JIA Li, FAN Xiao-jing and HU Yan-xia
- 160 Research on the detection of pethidine hydrochloride and morphine hydrochloride injection using surface enhanced raman spectroscopy HAN Sipingaowa, BAO Lin, ZHANG Mei-ling, SHA Xuan-yu and Hasi Wuliji *
- 164 Simultaneous determination of salicylic acid and jasmonic acid in pinus massoninan by high performance liquid chromatography-tandem mass spectrometry ZHONG Dong-lian *, REN Chuan-yi, LI Zu-guang, LIU Qing-hua, MO Run-hong, SHEN Dan-yu and TANG Fu-bin *
- 168 Reversible addition fragmentation chain transfer preparation and performance evaluation of aspirin imprinted material SU Li-qiang *, ZHOU Lei and HAN Shuang
- 172 Determination of diphenhydramine in cosmetics by ion exchange chromatography with fluorescence detection and confirmed by MS/MS HE Qiang *, LI Ying, ZHANG Lu, KONG Xiang-hong, JIANG Min and LIU Xiao-pan

* The author to whom the correspondence should be addressed

- 177 Determination of anthraquinone residues in tea samples by isotope dilution-gas chromatography-tandem mass spectrometry *XIE Wen^{*}, HUANG Chao-qun, CHEN Li, SHEN TU-yan, HONG Deng, LOU Chen-jie, XIE Yun-di, HE Jian-min, Hou Jian-bo, DENG Xiao-jun and YU Zhuo-ran*
- 182 Synthesis of Fe₃O₄@HKUST-1-C₁₈ magnetic composites for magnetic solid phase extraction of PAHs in environmental water samples *CHEN Xiang-ming^{*}, ZHANG Cong, WANG Dan-hong, LI Jie, QIAN Jiang, XIE Bai-lu and SHI Xiang-cheng*
- 189 Determination card of AFB₁ based on background fluorescence quenching immunochromatographic assay *WU Xiao-xia, ZHOU Xiao-yan, LI Jiu-tong, WANG Yu-wen and LI Xin-xia^{*}*
- 194 Determination of 11 micro or trace elements in pseudoboehmite by ICP-AES with microwave digestion *MA Bing-bing^{*}, MI Hai-peng, ZHOU Xi-lin, SU Zhong-hua, WANG Ya-sen and DENG Xiong*
- 198 Determination of chromium (VI) in soil and solid waste by alkaline digestion-flame atomic absorption spectrometry *LIN Hai-lan, XIE Sha, WEN Zhuo-qiong^{*}, ZHU Ri-long, LIU Tong and LUO Yue-ping*
- 203 Spectral interference and correction of high content of nickel and chromium in stainless steel by inductively coupled plasma atomic emission spectrometry *HU Xuan^{*} and SHI Lei*
- 207 Porous carbons prepared by rose stem and their application for Cr(VI) adsorption from aqueous solution *CHEN Jing-zhi, HUANG Bi-cheng and HUANG Ya-qin^{*}*
- 212 Determination of content for terbutaline sulfate on the molecular spectroscopy with Cu²⁺ as the medium *LIN Yu^{*} and QIN Fen-fen*
- 216 Simultaneous determination of indomethacin and ibuprofen in plasma by HPLC *WEN Qiong-fang, DING Shi-jia and ZHAO Hua^{*}*
- 220 Determination of 124 pesticide residues in chinese medicinal herbs by GC-MS-MS with isotope internal standard *WANG Jian-guo^{*}, WAN Li-kui, WEI Yu-xia, LIU Xiao-feng, GUO Hong, YANG Yu-zhu and LI Bo*
- 226 Determination of 9 organophosphorus esters in polymer by microwave-assisted extraction and gas chromatography-mass spectrometry *LIN Yin^{*}, DU Feng-juan, WANG Can and LIN Peng-hui*
- 231 Determination of nicotine by UPLC-MS/MS in electronic cigarette liquid *XU Hong-hui, CHEN Qian^{*}, LIN Zhi-hui, YE Yu-meng, YE Lin-quan, XING Yuan-na and CHEN Ze-yong*
- 235 Simultaneous determination of four kinds of aflatoxins in *lonicerae flos* by ultra high performance liquid chromatography/triple quadrupole mass spectrometry and study on fragmentation pathway *WU Han-qiu, XU Xiu-li, YANG Xiao-yu, LI Jian-heng^{*} and ZHANG Feng^{*}*

Periodical Review

- 241 Recent advances in the food multi-residue analysis of pesticides in china *DONG Ya-lei, LIU Wen-jing, CAO Jin^{*}, WANG Gang-li^{*} and LI Xiang-jun*