

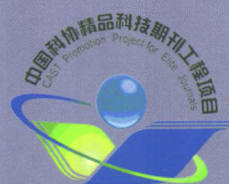
中国药学会系列期刊

2014年第34卷第5期

2014 May Volume 34 Number 5

ISSN 0254-1793

CN11-2224/R



# 药物分析杂志

YAOWU FENXI ZAZHI

## CHINESE JOURNAL OF PHARMACEUTICAL ANALYSIS

# 2014 5

中国科技核心期刊  
中国中文核心期刊

ISSN 0254-1793



中国食品药品检定研究院  
National Institutes for Food and Drug Control



中国药学会  
CHINESE PHARMACEUTICAL ASSOCIATION

邮发代号：国内2-237 国外M506

<http://www.nifdc.org.cn>  
<http://www.ywfxzz.cn>



## 药物分析杂志 第34卷 第5期

### 目次

#### 综述专论

- 柱后衍生化技术及其在药物与食品分析中的应用与进展 ..... 高恩泽,于小涵,刘婷,于孔宪,于治国(747)  
 农药残留检测标准体系概述及其分析方法进展 ..... 达晶,王刚力,曹进,张庆生(760)

#### 生物检定

- 人参皂苷 Rh<sub>1</sub> 人工抗原的合成及免疫原性分析 ..... 王艳,屈会化,赛佳洋,张越,孙晔,孔慧,赵琰,王庆国(770)  
 采用 16S rDNA 全长序列分析和生化反应鉴定乳酶生菌株 ..... 厉高懋,赵立,聂亮,邵泓,陈钢(775)  
 硫代乙酰胺诱导的斑马鱼急性肝损伤模型 ..... 齐玉娟,张靖溥(782)  
 日本血吸虫感染经吡喹酮治疗后血清中抗体及细胞因子水平的变化  
 ..... 刘向芹,张影,张瑾,王国柱,薄淑英,田喜凤,辛晓芳(790)  
 吸入水雾剂的过敏性试验方法研究 ..... 翁琳琳,宁炼,盛云华,谷舒怡,唐黎明,陈桂良(795)  
 双滤膜过滤方法的建立及在卡波姆眼用凝胶无菌检查试验中的应用  
 ..... 丁勃,徐晓洁,冷佳蔚,国明,史国生(800)

#### 成分分析

- 高效毛细管电泳法拆分 25R、25S 鲁斯可皂苷元初步研究 ..... 陈乃东,陈琼,何健(805)  
 超高效液相色谱法同时测定丹参酮提取物中隐丹参酮、丹参酮 I 和丹参酮 II<sub>A</sub>  
 ..... 汤瑶,李佐刚,王秀文,汪巨峰,李波(813)  
 DART/Q-TOF-MS 快速鉴定龙血竭中 5 个酚酸类成分 ..... 秦建平,吴建雄,李艳静,王雪,李家春,萧伟(819)  
 大菟丝子生品和盐炙品 HPLC-UV 特征图谱及 7 个有机酸含量变化研究 ..... 瞿燕,李琼,魏文龙,曾锐(824)  
 HPLC-MS 法同时测定防芷鼻咽颗粒中 6 个成分的含量  
 ..... 刘灵改,支旭然,郭进,王捧英,胡玉录,任非,张兰桐,孟岩(830)  
 柴胡饮片皂苷类成分变化及质量控制研究 ..... 闵宇航,王京辉,范妙璇,陈有根,傅欣彤,郭洪祝(836)  
 离子液体超声辅助萃取 HPLC 法测定天山雪莲中的 4 个有效成分 ..... 秦红英,周光明,彭贵龙,李俊平(844)  
 一测多评法同时测定川芎、当归饮片中多种化学成分的含量  
 ..... 田璐,闫海霞,傅欣彤,王京辉,郭洪祝,陈有根(848)  
 GC-MS 法同时测定复方麝香注射液中麝香酮、 $\beta$ -细辛醚、百秋李醇、龙脑、薄荷脑  
 ..... 彭敏,邓楠,刘文,戴迎春(855)

#### 安全监测

- 瘦肉精克伦特罗残留检测免疫芯片技术的研究 ..... 孙来玉,尹莉,姚婷,杨金田,邵朝纲,钱坤(859)  
 盐酸消旋山莨菪碱注射液有关物质的研究 ..... 陈青,李军,谭会洁,徐晓丹(865)  
 石墨炉原子吸收法直接测定龙骨水煎液中 Cr(VI) 的方法研究 ..... 王亚丽,金波,马辰(869)



HPLC 法测定注射用多西他赛纳米粒中溶血磷脂酰胆碱含量

..... 谢玲玲,罗卓雅,洪建文,胡音,黄丽萍,张弛(874)

UPLC-Q-TOF-MS 法快速检测补肾壮阳类中成药中 11 个 PDE5 型抑制剂类药物..... 李锐,陈国彪(879)

高效液相色谱法分离和测定左奥硝唑中右旋异构体..... 尹燕杰,何志一,孙超(885)

## 标准研讨·质量分析

苦瓜皂苷的 HPLC-ELSD 指纹图谱研究..... 李清艳,王京丽,王邠,陈虎彪,张庆英,梁鸿,赵玉英(889)

毛橘红与光橘红的 HPLC 药效指纹图谱比较研究

..... 王铁杰,宋茜,江坤,王平,殷果,谢天柱,吴熙,谢普,李璐,叶文才,王磊(896)

RP-HPLC 法同时测定早柳叶药材中 3 个主要黄酮苷成分的含量

..... 左飞鸿,吴国江,李进进,周国平,付辉政,郭文(903)

复方定志小丸正丁醇提部位的 HPLC-ELSD 指纹图谱研究

..... 周安,纪娟,陈苏菲,吴雷,吴虹,王斌,刘晓闯,吴鸿飞(907)

桃儿七根茎 HPLC 指纹图谱研究..... 邹妍琳,王佩龙,刘爽,令狐浪,兰小中,廖志华,陈敏(912)

毛两面针药材 HPLC 指纹图谱及模式识别研究..... 黄琪,雷鹏,李新中,刘海涛,朱露,谭润雅,刘琼(918)

UPLC 法同时测定三七伤药片中 4 个成分含量..... 杨美丽,戴忠,胡晓茹,鲁静,马双成(924)

藏药小米辣的定性定量方法研究..... 张幸福,骆桂法,刘海青(929)

对照品替代法用于缓解视疲劳片叶黄素含量测定的研究..... 林宏琳,钟碧萍,林国斌(934)

HPLC 法测定 5-氟尿嘧啶纳米粒的药物包封率..... 赵暖暖,仵文英,张抗怀,王娜(939)

拉曼光谱快速检测对乙酰氨基酚注射液..... 阮健,于海洲(943)

本刊为中国科学技术协会精品科技期刊。2006 年度至 2011 年度每年获中国科协精品科技期刊工程项目 C 类资助或示范证书,2012 年获中国科协精品科技期刊工程项目——科技期刊国际推广计划期刊国际出版人才保障项目立项资助,2013 年度获中国科协精品科技期刊工程学术质量提升项目立项资助。



## CHINESE JOURNAL OF PHARMACEUTICAL ANALYSIS

VOL. 34 NO. 5

### Review & Monography

Advances and applications of post-column derivatization technology in food and drug analysis

..... GAO En-ze, YU Xiao-han, LIU Ting, YU Kong-xian, YU Zhi-guo (747)

Review of standard system of pesticide residue detection and progress of analytical methods

..... DA Jing, WANG Gang-li, CAO Jin, ZHANG Qing-sheng (760)

### Bioassay

Synthesis and immunogenicity identification of artificial antigen of ginsenoside Rh<sub>1</sub>

..... WANG Yan, QU Hui-hua, SAI Jia-yang, ZHANG Yue, SUN Ye, KONG Hui, ZHAO Yan, WANG Qing-guo (770)

Identification of lactasin strains by full length 16S rDNA sequence analysis and biochemical tests

..... LI Gao-min, ZHAO Li, NIE Liang, SHAO Hong, CHEN Gang (775)

A zebrafish model of acute liver injury induced by thioacetamide ..... QI Yu-juan, ZHANG Jing-pu (782)

Changes of antibody and cytokine levels in serum of people infected with *Schistosoma japonicum* after praziquantel treatment

..... LIU Xiang-qin, ZHANG Ying, ZHANG Jin, WANG Guo-zhu, BO Shu-ying, TIAN Xi-feng, XIN Xiao-fang (790)

A study on allergy test method for aqueous aerosol inhalation

..... WENG Lin-lin, NING Lian, SHENG Yun-hua, GU Shu-yi, TANG Li-ming, CHEN Gui-liang (795)

Establishment and application of two-step membrane filtration method in sterility test for carbomer eye drops

..... DING Bo, XU Xiao-jie, LENG Jia-wei, GUO Ming, SHI Guo-sheng (800)

### Ingredient Analysis

Primary study on the chiral separation of 25R, 25S ruscogenins by high performance capillary electrophoresis

..... CHEN Nai-dong, CHEN Qiong, HE Jian (805)

Simultaneous determination of cryptotanshinone, tanshinone I and tanshinone II<sub>A</sub> in ethanol extract of *Salviae Miltiorrhizae Radix et Rhizoma* by ultra-performance liquid chromatography

..... TANG Yao, LI Zuo-gang, WANG Xiu-wen, WANG Ju-feng, LI Bo (813)

Rapid identification and characterization of five phenolic compounds in *resina draconis* by DART/Q-TOF-MS

..... QIN Jian-ping, WU Jian-xiong, LI Yan-jing, WANG Xue, LI Jia-chun, XIAO Wei (819)

HPLC-UV specific chromatogram study and determination of seven organic acids from *Datusizi* (*Cuscutae Japonicae Semen*) before and after salt processing

..... QU Yan, LI Qiong, WEI Wen-long, ZENG Rui (824)

Simultaneous determination of 6 compounds in Fangzhi nasopharyngeal granules by HPLC-MS

..... LIU Ling-gai, ZHI Xu-ran, GUO Jin, WANG Peng-ying, HU Yu-lu, REN Fei, ZHANG Lan-tong, MENG Yan (830)

Study on the variation of saikosaponins and the quality control of the decoction pieces of *Radix Bupleuri*

..... MIN Yu-hang, WANG Jing-hui, FAN Miao-xuan, CHEN You-gen, FU Xin-tong, GUO Hong-zhu (836)

Sensitive determination of 4 active ingredients in *Herba Saussureae Involucratae* by UAE-HPLC method

..... QIN Hong-ying, ZHOU Guang-ming, PENG Gui-long, LI Jun-ping (844)

Simultaneous determination of multiple components in decoction pieces of *Chuanxiong Rhizoma* and *Angelicae Sinensis Radix* by quantitative analysis of multi-components by single maker

..... TIAN Lu, YAN Hai-xia, FU Xin-tong, WANG Jing-hui, GUO Hong-zhu, CHEN You-gen (848)

Simultaneous determination of muscone,  $\beta$ -asarone, patchoulic alcohol, borneol, menthol in compound Shexiang injection by GC-MS

..... PENG Min, DENG Nan, LIU Wen, DAI Ying-chun (855)



## Safety Monitoring

- Research on immunochip techniques for residue detection of clenbuterol  
 ..... SUN Lai - yu, YIN Li, YAO Ting, YANG Jin - tian, SHAO Chao - gang, QIAN Kun(859)
- Study on the related substances in raceanisodamine hydrochloride injection  
 ..... CHEN Qing, LI Jun, TAN Hui - jie, XU Xiao - dan(865)
- Study of direct determination of Cr(VI) in Os. Dracoins decoction by GFAAS ..... WANG Ya - li, JIN Bo, MA Chen(869)
- Determination of lysophosphatidylcholine in nanoparticles of docetaxel for injection by HPLC  
 ..... XIE Ling - ling, LUO Zhuo - ya, HONG Jian - wen, HU Yin, HUANG Li - ping, ZHANG Chi(874)
- Simultaneous determination of 11 phosphodiesterase - 5 inhibitors added illegally in Chinese medicine preparations for invigorants  
 by UPLC - Q - TOF - MS ..... LI Rui, CHEN Guo - biao(879)
- HPLC separation and determination of dextroisomer in levornidazole ..... YIN Yan - jie, HE Zhi - yi, SUN Chao(885)

## Standard Deliberation · Quality Control

- HPLC - ELSD fingerprint analysis of saponins in the fruits of *Momordica charantia* L.  
 ..... LI Qing - yan, WANG Jing - li, WANG Bin, CHEN Hu - biao, ZHANG Qing - ying, LIANG Hong, ZHAO Yu - ying(889)
- A comparative study of HPLC pharmacodynamic fingerprints Maojuhong and Guangjuhong  
 ..... WANG Tie - jie, SONG Qian, JIANG Kun, WANG Ping, YIN Guo,  
 XIE Tian - zhu, WU Xi, XIE Pu, LI Lu, YE Wen - cai, WANG Lei(896)
- RP - HPLC simultaneous determination of three main flavonoid glycoside components in Hankow Willow Leaf  
 ..... ZUO Fei - hong, WU Guo - jiang, LI Jin - jin, ZHOU Guo - ping, FU Hui - zheng, GUO Wen(903)
- Studies on fingerprint chromatograms of *n* - butanol extracts of Fufang Dingzhi pills by HPLC - ELSD  
 ..... ZHOU An, JI Juan, CHEN Su - fei, WU Lei, WU Hong, WANG Bin, LIU Xiao - chuang, WU Hong - fei(907)
- Study on HPLC fingerprint of the rhizome of *Sinopodophyllum hexandrum* (Royle) Ying  
 ..... ZOU Yan - lin, WANG Pei - long, LIU Shuang, LINGHU Lang, LAN Xiao - zhong, LIAO Zhi - hua, CHEN Min(912)
- Fingerprint analysis and chemical pattern recognition of *Zanthoxylum nitidum* (Roxb.) DC. f. *fastuosum* How ex Huang by HPLC  
 ..... HUANG Qi, LEI Peng, LI Xin - zhong, LIU Hai - tao, ZHU Lu, TAN Run - ya, LIU Qiong(918)
- UPLC simultaneous determination of the content for 4 constituents in Sanqi Shangyao tablets  
 ..... YANG Mei - li, DAI Zhong, HU Xiao - ru, LU Jing, MA Shuang - cheng(924)
- Qualitative and quantitative study of Tibetan medicine *Capsici Frutescens Fructus*  
 ..... ZHANG Xing - fu, LUO Gui - fa, LIU Hai - qing(929)
- Quantitative determination of lutein in visual fatigue relieving tablets by reference substance substitution  
 ..... LIN Hong - lin, ZHONG Bi - ping, LIN Guo - bin(934)
- HPLC determination of entrapment efficiency of 5 - fluorouracil nanoparticles  
 ..... ZHAO Nuan - nuan, WU Wen - ying, ZHANG Kang - huai, WANG Na(939)
- Rapid identification and determination of paracetamol injection by Raman spectroscopy ..... RUAN Jian, YU Hai - zhou(943)



# TDTF

天大天发

通过ISO9001质量体系认证

专利产品

## RC806D

Dissolution Tester

溶出试验仪

### 功能简介

- \* RC-806D溶出试验仪是按照<<中国药典>>和<<美国药典>>要求设计的新型药物溶出试验仪;
- \* 8杯8杆,机头电动升降,转杆与溶出杯自动对中心定位;
- \* 转杆与溶出杯轴偏差 $\leq 2\text{mm}$ ;
- \* 新型温度传感器温漂小,温度稳定性高,程控试验功能可执行10组预设取样程序;
- \* 基本试验功能可依需要随时改变运行参数;
- \* 仪器功能强大、操作简便、性能稳定可靠。



## 满足仿制药质量

## 一致性评价的试验仪器

### 功能简介

- \* 系统由RC8MD溶出试验仪、RZQ-8D取样收集系统组成,可准确自动地完成药物的溶出和取样;
- \* 溶出取样收集系统符合国内外药典对药物溶出与取样的要求;
- \* 取样系统采用精密注射器作为取样动力,取样精度高;
- \* 具有八通道各自独立的管道系统,能够满足溶出试验中对空白和标准品的对照要求;
- \* 15位试管架,最多可放置120个试管;
- \* 双极过滤,取样前的回液循环技术避免了交叉感染。

专利产品

## ADFC8MD

Sampling and Collecting System for Dissolution Tester

自动溶出取样系统



天大天发科技有限公司  
Tianda Tianfa Technology Co.,LTD

地址:天津市南开区卫津路92号天津大学北门内填料大楼1层 邮编:300072 销售电话:022-27404514 27404928  
技术服务电话:022-27407795 销售传真:022-27401850 网址:WWW.tdff.cn E-mail:sales@tdff.cn

本公司保留更改产品设计与规格的权力,届时恕不另行通知,敬请谅解;所有文字均经过认真核对,力求准确,如有任何印刷错漏或在翻译中可能产生的误差,本公司不承担由此产生的后果。

国内刊号:CN11-2224/R 邮发代号:国内2-237 国外:M506 每册定价:30.00元