



ZHONGCAOYAO

Chinese Traditional and Herbal Drugs

第 53 卷 第 14 期 (总第 721 期)

2022 年 7 月 28 日出版

半月刊

1970 年 1 月创刊

主 管

天津药物研究院

主 办

天津药物研究院 (www.tjpr.com)

中国药学会 (www.cpa.org.cn)

编辑出版

《中草药》杂志编辑部

地址: 天津市滨海新区滨海科技园

惠仁道 306 号

邮编: 300462

电话: 022-27474913 23006821

网址: www.中草药杂志社.中国

www.tiprpress.com

E-mail: zcy@tiprpress.com

国际标准连续出版物号

ISSN 0253-2670

国内统一连续出版物号

CN 12-1108/R

主 编 刘昌孝 汤立达

执行主编 陈常青

## 目 次

### · 专 论 ·

- 4233 2005—2020 年中药复方新药临床试验申请未获批准品种的回顾分析  
周跃华, 刘炳林, 周 刚, 胡流芳, 张晓东

### · 中药配方颗粒标准制定专栏 ·

- 4243 从质量标准复核和审评视角浅析中药配方颗粒标准制定工作 (I)  
于姗姗, 刘洪超, 郭东晓, 郭衍珩, 袁炎炎, 林永强, 张秋红
- 4249 从质量标准复核和审评视角浅析中药配方颗粒标准制定工作 (II)  
刘洪超, 于姗姗, 齐 红, 李 敏, 董晓弟, 黄蒙蒙  
林永强, 郭东晓
- 4256 从质量标准复核和审评视角浅析中药配方颗粒标准制定工作 (III)  
于姗姗, 郭东晓, 张秋红, 王海燕, 杨纯国, 孟庆廷  
刘洪超, 林永强

### · 化学成分 ·

- 4265 蓬莪术挥发油中倍半萜类化学成分及舒张子宫平滑肌活性  
崔 婷, 倪 红, 刘 娟, 彭 成, 熊 亮, 刘 菲
- 4270 华中五味子根皮中 1 个新的萜类倍半萜  
张东东, 黄仕其, 刘媛媛, 孙 玉, 李玉泽, 张化为, 邓 翀  
宋小妹, 王 薇
- 4276 窄叶鲜卑花地上部分化学成分及降血脂活性研究  
刘宏栋, 高余英, 高 琦, 周小青, 陈 杰, 朱金华  
李 飞, 李 斌

### · 药剂与工艺 ·

- 4285 基于仿生技术对薏苡仁麸炒过程中色泽气味变化研究  
陈 鹏, 肖晓燕, 梅 茜, 李 林, 毛春芹, 刘明贵  
陆兔林, 徐蕊苑
- 4298 中药复方配伍理论下生血宝复方化学成分溶出规律研究  
李世雄, 赵思宇, 李 源, 何文婧, 张喜利, 刘文龙
- 4307 延胡索乙素磷脂复合物及其固体分散体、油制剂、纳米混悬剂的制备  
及药动学研究  
李君霞, 曹亚蕊, 王金涛, 方晓东
- 4317 络合萃取-反萃取制备甘草超滤液中芹糖甘草苷的工艺研究  
刘媛媛, 冯晓莉, 刘晓霞, 万玲娟, 何红杰, 魏舒畅
- 4323 薯蓣皂苷元无定形固体分散体制备及体内评价  
刘 沛, 常金花, 康 凯, 薛禾菲, 王雨欣, 徐 林  
刘翠哲, 周剑宇
- 4333 多中心切割二维液相色谱法同时测定九味熄风颗粒中 10 种成分  
沈灿杰, 马 阳, 陈夏霖, 高 霞, 曹 亮, 王振中, 肖 伟
- 4340 基于指纹图谱及化学计量学研究不同发酵程度建曲中成分变化  
孙梦梅, 王瑞生, 张振凌, 陈祎甜, 李德华

### · 药理与临床 ·

- 4350 基于“部位扣除”的黄芪温热效应导致“上火”反应的物质基础及  
机制研究  
曹丽琬, 裴 科, 刘 瑞, 宁 燕, 赵婷婷, 于子涵, 吴陈成  
邵翔宇, 张翔生, 王颖莉, 胡美变, 蔡 皓
- 4365 基于网络药理学及实验验证探究芪苈强心胶囊治疗射血分数保留型  
心衰的作用机制  
郝佳梦, 常丽萍, 王 璐  
刘 煊, 陈 檬, 侯 斌, 周璐恒, 侯云龙



ZHONGCAOYAO

Chinese Traditional and Herbal Drugs

第 53 卷 第 14 期 (总第 721 期)

2022 年 7 月 28 日出版

#### 广告合作

中草药杂志社媒体运营部

电话: 022-23006868 23006895

#### 印刷

天津市恒远印刷有限公司

#### 国内发行

天津市邮政局

#### 订阅

全国各地邮政局

#### 国外发行

中国国际图书贸易集团有限公司

(100044 北京 399 信箱)

#### 国内邮发代号

6-77

#### 国外邮发代号

M221

#### 定价

每期 50.00 元 全年 1200.00 元

#### 广告发布登记号

BH 2020-01

#### 英文责任编辑

齐静雯

#### 本期责任编辑

崔艳丽

- 4376 肠道菌群介导的酸枣仁总黄酮体内代谢轮廓研究  
段慧竹, 刘佳星, 闫 艳, 杜晨晖
- 4388 基于阿尔茨海默症模型大鼠的开心散药动学研究  
冯晓晓, 王彬斌, 陈 东, 仇 峰, 龚慕辛, 李朝霞
- 4399 椿乳凝胶抗低危型人乳头瘤病毒的作用研究  
吴梦瑶, 彭冬冬, 龚 云, 彭 印, 张 鹏, 张小冬, 唐小燕  
张妙红, 姜德建
- 4409 马钱苷联合 *miR-3619-5p* 靶向迁移侵袭增强因子 1 对宫颈癌 SiHa 细胞迁移和凋亡的影响  
冯双苗, 张化莲, 袁有华
- 4417 唾液乳杆菌与蛹虫草或铁皮石斛共培养提取物的抗炎作用: 治疗皮肤湿疹的可能应用  
郭鸿胜, 郑钟毓, 伍嘉慧, 吴启韵, 高 雄, 夏翊腾, 董婷霞  
刘华清, 詹华强

#### • 数据挖掘与循证医学 •

- 4428 基于数据挖掘探讨“柴胡劫肝阴”的相杀配伍内涵  
刘青松, 李 微, 张 怡, 陈双兰, 谢子妍, 李 斌
- 4437 基于融合组合赋权和最优聚类机器学习方法的五味子保胃护肝保健食品配方设计与评价  
姚鉴玲, 刘洪宇, 程 杰, 马嘉慕, 宋若兰, 于啊香, 魏 静  
魏胜利, 单东杰, 折改梅
- 4447 中成药治疗儿童注意缺陷多动障碍的贝叶斯网状 Meta 分析  
刘 丽, 周良安, 孙亚磊

#### • 药材与资源 •

- 4465 基于转录组测序分析干旱胁迫对党参不同组织基因表达的调控  
孙晓琛, 栗锦鹏, 原静静, 王惠珍
- 4476 藜芦 bHLH 转录因子分析鉴定  
寇呈熹, 佟金泉, 马 瑞, 孙 伟, 薛哲勇, 麻鹏达
- 4486 内生真菌生物转化提高滇重楼皂苷含量及抗肿瘤作用研究  
刘德柱, 陈艺杨, 张 蒙, 田 雨, 李早慧, 于 丹, 都晓伟
- 4493 不同基原枳实药材的质量差异评价研究  
陆超颖, 王佳丽, 王洪兰, 池玉梅, 张 雯, 赵晓莉, 狄留庆
- 4504 基于 HPLC 指纹图谱的不同产地金钱草及其地方习用品与混用品的鉴定研究  
陈 云, 徐璐娜, 王翰华, 李兆慧, 周漫佳, 程汝滨

#### • 综 述 •

- 4512 代谢组学在中医药领域的应用与展望  
崔笑岩, 杨佳颖, 王志刚, 李贤煜, 陈 鹏, 杨洪军, 郭 娜
- 4527 抗肿瘤作用的海洋中药  
李泽宇, 郝二伟, 李 卉, 王嘉玉, 李心鑫, 曹 瑞, 庄培钧  
肖 倩, 韦柳溢, 杜正彩, 侯小涛, 邓家刚
- 4545 组分中药稳定性研究进展  
王俊芳, 任晓亮, 王 萌
- 4554 人参皂苷衍生化及生物活性研究进展  
张浩然, 叶安琪, 张跃伟, 成乐琴
- 4568 珍稀中药资源金平人参的研究与利用  
李晓波, 姜薇薇, 张广辉, 邓自有, 王 淞, 田兴智  
郭巧生, 杨生超
- 4582 天麻中酚类成分对心脑血管疾病的药理作用研究进展  
全毅恒, 上官晨虹, 陈 琛

本刊投稿须知见《中草药》2022, 53(1): 326-328.

期刊基本参数: CN 12-1108 R \* 1970 \* sm \* A4 \* 240 \* zh \* P \* ¥ 50.00 \* 3000 \* 35 \* 2022 - 14

# CHINESE TRADITIONAL AND HERBAL DRUGS

Vol. 53 No. 14 July 2022

## Chinese Traditional and Herbal Drugs

(Semimonthly)

Founded in January, 1970

## Directed by

Tianjin Institute of Pharmaceutical Research

## Sponsored by

Tianjin Institute of Pharmaceutical Research

(www.tjipr.com)

Chinese Pharmaceutical Association

(www.cpa.org.cn)

## Edited and Published by

Editorial Office of Chinese Traditional

and Herbal Drugs

Address: 306# Huirendao, Binhai District,

Tianjin, China

Post Code: 300462

Tel: +86-22-27474913

Fax: +86-22-23006821

http: // www.中草药杂志社.中国

www.tiprpress.com

E-mail: zcy@tiprpress.com

## Standard Number

ISSN 0253-2670

CN 12-1108/R

CODEN CTYAD8

## Editor-in-chief

LIU Chang-xiao TANG Li-da

## Executive Editor-in-chief

CHEN Chang-qing

## Contents

### • Special Topic •

- 4233 Retrospective analysis on unapproved application for clinical trials of new compound preparations of TCM from 2005 to 2020  
ZHOU Yue-hua, LIU Bing-lin, ZHOU Gang, HU Liu-fang, ZHANG Xiao-dong

### • Formulation of Standard of Traditional Chinese Medicine Formula Granules •

- 4243 Analysis on formulation of standard of traditional Chinese medicine formula granules from perspective of quality standard review and evaluation (I)  
YU Shan-shan, LIU Hong-chao, GUO Dong-xiao, GUO Yan-heng, YUAN Yan-yan, LIN Yong-qiang, ZHANG Qiu-hong
- 4249 Analysis on formulation of standard of traditional Chinese medicine formula granules from perspective of quality standard review and evaluation (II)  
LIU Hong-chao, YU Shan-shan, QI Hong, LI Min, DONG Xiao-di, HUANG Meng-meng, LIN Yong-qiang, GUO Dong-xiao
- 4256 Analysis on formulation of standard of traditional Chinese medicine formula granules from perspective of quality standard review and evaluation (III)  
YU Shan-shan, GUO Dong-xiao, ZHANG Qiu-hong, WANG Hai-yan, YANG Chun-guo, MENG Qing-ting, LIU Hong-chao, LIN Yong-qiang

### • Chemical Constituents •

- 4265 Sesquiterpenoids from volatile oil of *Curcuma phaeocaulis* and relaxant effects on uterine smooth muscle  
CUI Ting, NI Hong, LIU Juan, PENG Cheng, XIONG Liang, LIU Fei
- 4270 A new calamenene sesquiterpenoid from root bark of *Schisandra sphenanthera*  
ZHANG Dong-dong, HUANG Shi-qi, LIU Yuan-yuan, SUN Yu, LI Yu-ze, ZHANG Hua-wei, DENG Chong, SONG Xiao-mei, WANG Wei
- 4276 Chemical constituents from the aerial part of *Sibiraea angustata* and their hypolipidemic activity  
LIU Hong-dong, GAO Yu-ying, GAO Qi, ZHOU Xiao-qing, CHEN Jie, ZHU Jin-hua, LI Fei, LI Bin

### • Pharmaceutics and Technology •

- 4285 Study on color and odor change of *Coicis Semen* bran stir-fry based on bionic technology  
CHEN Peng, XIAO Xiao-yan, MEI Xi, LI Lin, MAO Chun-qin, LIU Ming-gui, LU Tu-lin, XU Cong-long
- 4298 Study on dissolution law of chemical constituents of Shengxuebao compound under compatibility theory of TCM compound  
LI Shi-xiong, ZHAO Si-yu, LI Yuan, HE Wen-jin, ZHANG Xi-li, LIU Wen-long
- 4307 Preparation and pharmacokinetics of tetrahydropalmitine phospholipid complex, and its solid dispersion, oil preparation and nanosuspension  
LI Jun-xia, CAO Ya-rui, WANG Jin-tao, FANG Xiao-dong
- 4317 Study on preparation technology of liquiritin apioside from licorice ultrafiltrate by complexation extraction and back extraction  
LIU Yuan-yuan, FENG Xiao-li, LIU Xiao-xia, WAN Ling-juan, HE Hong-jie, WEI Shu-chang
- 4323 Preparation and evaluation of diosgenin amorphous solid dispersion *in vitro* and *in vivo*  
LIU Pei, CHANG Jin-hua, KANG Kai, XUE He-fei, WANG Yu-xin, XU Lin, LIU Cui-zhe, ZHOU Jian-yu
- 4333 Simultaneous quantitation of 10 components in Jiawei Xifeng Granules by multiple heart-cutting two dimensional liquid chromatography  
SHEN Can-jie, MA Yang, CHEN Xia-Lin, GAO Xia, CAO Liang, WANG Zhen-zhong, XIAO Wei
- 4340 Study on changes of components in Jianqu with different degrees of fermentation based on fingerprint and chemometrics  
SUN Meng-mei, WANG Rui-sheng, ZHANG Zhen-ling, CHEN Yi-tian, LI De-hua

### • Pharmacological Studies and Clinical Observations •

- 4350 Material basis and mechanism of "Shanghuo" response caused by warm nature of *Astragali Radix* based on "fraction deduction"  
CAO Li-long, PEI Ke, LIU Rui, NING Yan, ZHAO Ting-ting, YU Zi-han, WU Chen-cheng, SHAO Xiang-yu, ZHANG Shuo-sheng, WANG Ying-li, HU Mei-bian, CAI Hao
- 4365 Mechanism of Qili Qiangxin Capsule in treatment of heart failure with preserved ejection fraction based on network pharmacology and experimental verification  
HAO Jia-meng, CHANG Li-ping, WANG Lu, LIU Huan, CHEN Meng, HOU Bin, ZHOU Lu-heng, HOU Yun-long

## Chinese Traditional and Herbal Drugs

(Semimonthly)

Founded in January, 1970

## Advertising cooperation

Department of Media Operations, Tianjin

Press of Chinese Herbal Medicines

Tel: (022)23006868 23006895

## Printed by

Tianjin Hengyuan Printing Co., Ltd.

## Distribution

Tianjin Post Office

## Subscription Domestic

Local Post Office

## Subscription Overseas

China International Book Trading Corporation,

PO Box 399, Beijing 100044, China

## Advertising Registration Number

BH 2020-01

## Publication Date

July 28, 2022

## Editor in Charge of English

QI Jing-wen

## Editor in Charge of This Issue

CUI Yan-li

- 4376 *In vivo* metabolic profile of total flavonoids in *Ziziphi Spinosae Semen* mediated by gut microbiota  
DUAN Hui-zhu, LIU Jia-xing, YAN Yan, DU Chen-hui
- 4388 Pharmacokinetic study of Kaixin Powder in rats with Alzheimer's disease  
FENG Xiao-xiao, WANG Bin-bin, CHEN Dong, QIU Feng, GONG Mu-xin, LI Zhao-xia
- 4399 Effect of Chunru Gel on low risk human papillomavirus  
WU Meng-yao, PENG Dong-dong, GONG Yun, PENG Yin, ZHANG Peng, ZHANG Xiao-dong, TANG Xiao-yan, ZHANG Miao-hong, JIANG De-jian
- 4409 Effect of loganin combined with *miR-3619-5p* targeting MIEN1 on migration and apoptosis of cervical cancer SiHa cells  
FENG Shuang-miao, ZHANG Hua-lian, YUAN You-hua
- 4417 Anti-inflammatory effects of co-culture extract of *Lactobacillus salivarius* and traditional Chinese medicine: Possible application in treatment of skin eczema  
GUO Hong-sheng, ZHENG Zhong-yu, WU Jia-hui, WU Qi-yun, GAO Xiong, XIA Yi-teng, DONG Ting-xia, LIU Hua-qing, TSIM Wah Keung Karl
- Data Mining and Evidence-Based Medicine •
- 4428 Analysis of mutual-detoxication compatibility rules of “*Bupleuri Radix* decrease liver's *yin* essence” based on data mining  
LIU Qing-song, LI Wei, ZHANG Yi, CHEN Shuang-lan, XIE Zi-yan, LI Bin
- 4437 Formula design and evaluation of *Schisandre Chinensis Fructus* health food for protecting gastric mucosa and liver based on combination of empowerment and clustering optimization machine learning algorithms  
YAO Jian-ling, LIU Hong-yu, CHENG Jie, MA Jia-mu, SONG Ruo-lan, YU A-xiang, WEI Jing, WEI Sheng-li, SHAN Dong-jie, SHE Gai-mei
- 4447 Bayesian network Meta-analysis of Chinese patent medicines in treatment of attention deficit hyperactivity disorder in children  
LIU Li, ZHOU Liang-an, SUN Ya-lei
- Medicinal Materials •
- 4465 Sequencing and analysis of transcriptome to reveal regulation gene expression in different tissues of *Codonopsis pilosula* under drought stress  
SUN Xiao-chen, LI Jin-peng, YUAN Jing-jing, WANG Hui-zhen
- 4476 Analysis of *Veratrum nigrum* bHLH transcription factor based on transcriptome  
KOU Cheng-xi, TONG Jin-quan, MA Rui, SUN Wei, XUE Zhe-yong, MA Peng-da
- 4486 Study on biotransformation of endophytic fungus to enhance saponins content and antitumor activity of *Paridis Rhizoma*  
LIU De-zhu, CHEN Yi-yang, ZHANG Meng, TIAN Yu, LI Zao-hui, YU Dan, DU Xiao-wei
- 4493 Study on quality difference of *Aurantii Fructus Immaturus* from different origins  
LU Chao-ying, WANG Jia-li, WANG Hong-lan, CHI Yu-mei, ZHANG Wen, ZHAO Xiao-li, DI Liu-qing
- 4504 Study on identification technology of *Lysimachia christinae* and its local common articles and mixed articles based on HPLC fingerprint  
CHEN Yun, XU Lu-na, WANG Han-hua, LI Zhao-hui, ZHOU Man-jia, CHENG Ru-bin
- Reviews •
- 4512 Application and prospect of metabolomics in traditional Chinese medicine research  
CUI Fu-yan, YANG Jia-ying, WANG Zhi-gang, LI Xian-yu, CHEN Peng, YANG Hong-jun, GUO Na
- 4527 Marine traditional Chinese medicine with antitumor effects  
LI Ze-yu, HAO Er-wei, LI Hui, WANG Jia-yu, LI Xin-xin, CAO-Rui, ZHUANG Pei-jun, XIAO Qian, WEI Liu-yi, DU Zheng-cai, HOU Xiao-tao, DENG Jia-gang
- 4545 Research progress on stability of component-based Chinese medicine  
WANG Jun-fang, REN Xiao-liang, WANG Meng
- 4554 Research progress on ginsenoside derivatization and its biological activities  
ZHANG Hao-ran, YE An-qi, ZHANG Yue-wei, CHENG Le-qin
- 4568 Research and utilization of precious Chinese medicine resources of *Panax vietnamensis*  
LI Xiao-bo, JIANG Wei-wei, ZHANG Guang-hui, DENG Zi-you, WANG Song, TIAN Xing-zhi, GUO Qiao-sheng, YANG Sheng-chao
- 4582 Research progress on pharmacological effects of phenols in *Gastrodia elata* on cardio cerebral vascular diseases  
QUAN Yi-heng, SHANG GUAN Chen-hong, CHEN Chen