



ZHONGCAOYAO

Chinese Traditional and Herbal Drugs

第 53 卷 第 13 期 (总第 720 期)

2022 年 7 月 12 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.tjipr.com)

中国药学会 (www.cpa.org.cn)

编辑出版

《中草药》杂志编辑部

地址：天津市滨海高新区滨海科技园

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 •

- 3889 “以患者为中心”的中药新药药学研究与评价的思考与实践
周跃华

• 化学成分 •

- 3897 覆盆子的化学成分研究
王静宜, 余俊东, 陈 悅, 杜 军, 巫小宏, 李医明, 王 瑞
陈 亮, 吴迎春
- 3904 蛇足石杉内生真菌 *Penicillium chrysogenum* MT-40 的代谢产物研究
贾放放, 齐博文, 张蓓蓓, 王雯静, 王 阳, 石璠钰, 刘 晓
朱枝祥, 王 娟, 史社坡
- 3912 紫玉兰叶中木脂素类成分及抗炎活性研究
丁林芬, 刘 佳, 宋京风, 雷 铁, 聂 伟, 宋流东, 吴兴德
- 3920 基于 UHPLC-Q-TOF-MS 技术研究炮制对白术芍药散中化学成分的影响
刘 晓, 孙戡平, 秦昆明, 金俊杰, 杨 超, 蔡宝昌

• 药剂与工艺 •

- 3929 三乌胶提取物水凝胶的制备及其对类风湿性关节炎治疗作用研究
肖素芸, 罗才琴, 吕 冬, 王承潇, 崔秀明
- 3940 基于化学特征和核心功效的经典名方清胃散中地黄炮制品研究
王 敏, 刘欢欢, 张 婷, 于银萍, 潘金火, 季 德, 苏联麟
陆兔林, 李 林, 程晓莉
- 3953 基于 pH 调控多酚-唾液蛋白结合作用的三果汤含片涩味掩蔽方法研究
郑 玉, 谢兴亮, 刘 俊, 韩 丽, 林俊芝, 樊三虎, 莫太刚
张定堃, 韩 雪
- 3962 基于信息熵权法优选香果健消片挥发油羟丙基-β-环糊精包合工艺及其表征
郝佳旭, 查丽春, 范 晓, 崔利利, 高家菊, 曾鹏辉
武旭润, 马云淑

- 3972 基于原位反应性顶空系统对金花清感颗粒挥发油抗氧化活性研究
丁岗芯, 尹金芳, 崔恩浩, 邹 维, 石 峰, 赵建松, 熊华斌
杨 志, 高云涛
- 3980 鞣花酸纳米混悬剂的制备、表征及其体内药动学研究
秦芳芳, 彭有梅, 苏海波, 高守甲
- 3991 UHPLC 法分析补肺活血胶囊中 12 种指标成分
李 全, 任 慧, 郭 盛, 王恒斌, 耿婉丽, 钱大伟, 段金廒

• 药理与临床 •

- 3997 基于 NLRP3 炎症小体研究白头翁汤正丁醇提取物对白念珠菌定植下小鼠溃疡性结肠炎的作用机制
王亚东, 徐志庆, 夏 丹, 张梦翔, 汪天明, 邵 菁, 汪长中
- 4007 基于 TLR4/NF-κB/NLRP3 和 PI3K/Akt 通路研究甘遂及其炮制品对水负荷小鼠的利尿作用及机制
宁晨旭, 苏晓娟, 任可乐, 刘晓琴, 孟祥龙, 赵彩蓉, 赵泓瑜
王 娟, 张朔生
- 4019 清肺口服液黄酮类成分对呼吸道合胞病毒感染小鼠坏死性凋亡的影响
凌晓颖, 丁雅荔, 陶嘉磊, 袁 斌
- 4028 人参皂苷 Rb₁ 改善拘束应激合并脂多糖诱导的小鼠免疫性肝损伤的作用机制研究
王国恩, 杨 帆, 刘心雨, 叶钰菁, 王若鸿, 吕茜婷, 刘小婷



ZHONGCAOYAO

Chinese Traditional and Herbal Drugs

第 53 卷 第 13 期 (总第 720 期)

2022 年 7 月 12 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

姜 丹

本期责任编辑

王文倩

- 4035 基于 UHPLC-MS/MS 的钩藤生物碱在大鼠体内的组织分布研究
吴依松, 李士伟, 李昊举, 魏文龙, 吴士飞, 果德安
4046 基于 IL-6/STAT3 信号通路研究冬凌草甲素对乳腺癌细胞的作用及机制
黎乃维, 王 飞, 尧子钊, 王剑石
4053 基于蛋白质组学和 LINCS 数据库预测中药复方的不良反应——以黄连解毒汤为例
尚津锋, 李倩楠, 姜婷月, 焦家康, 毕 磊, 王璟邑, 刘 欣

• 数据挖掘与循证医学 •

- 4065 基于古今方剂数据挖掘的酸枣仁-远志药对配伍特点及外延分析
任海琴, 孔祥鹏, 王颖莉
4075 基于 CiteSpace 可视化图谱的我国中医药事管理研究的热点与前沿分析
荣红国, 马伊昕, 杜美皎, 费宇彤
4084 口服补肾类中成药治疗绝经后骨质疏松症有效性与安全性的网状 Meta 分析
王 真, 王从安, 王永泉, 李绪杰, 周梓洋, 张丽娟, 李苗秀

• 药材与资源 •

- 4100 广藿香 *PcHAD* 基因克隆及其参与广藿香醇生物合成功能分析
吴带娣, 黄慧玲, 单耀楷, 邹 琛, 龚丽珍, 詹若挺, 陈立凯
4109 肥料配施对北苍术 3 种倍半萜类成分及 2 种生物合成关键酶基因表达的影响
王孟聪, 翁丽丽, 孙 金, 肖春萍, 陈天丽
4119 金花茶 UPLC 指纹图谱的建立及亲缘关系分析
高 慧, 何秋梅, 白燕远, 李耀燕, 闫国跃, 姚涵雅, 天 亮
刘 博, 苏宏新, 阿里穆斯, 谢阳姣
4125 基于 UPLC 指纹图谱和黄酮醇苷含量的不同来源银杏叶的质量比较
黄 申, 朱 波, 张巧艳, 林榴芬, 尤金玲, 蒙雄裕
张泉龙, 秦路平

• 综 述 •

- 4132 中药治疗阿尔茨海默病分子作用机制的研究进展
张晨曦, 董承瑜, 胡 鑫, 郑慧慧, 郎尉雅
4146 黄酮类成分抗肝纤维化作用及其机制的研究进展
马 婷, 邝晓岚, 蔡婉娜, 刘 博, 徐方方
4162 牡丹皮活性成分改善糖尿病及其并发症的研究进展
伍琳琳, 李志鹏, 曹世杰, 康 宁
4170 桔子肝毒性防治的研究进展
杨新荣, 窦 霞, 李国峰, 宋沁洁, 李威慰, 吴红伟
李东辉, 李越峰
4177 海洋植物多糖的化学结构表征及其药理活性研究进展
滕 浩, 李雪影, 孙 卉, 戴 瑞, 李才林, 何志贵
4187 木通属植物提取物抗肿瘤作用的研究进展
曹琳娜, 彭佩克, 潘志强
4198 木香的化学成分、药理作用、临床应用研究进展及质量标志物预测
郑加梅, 尚明越, 王嘉乐, 代国娜, 宋经元, 段宝忠
4214 柿叶中黄酮类化合物及提取工艺研究进展
王梦杰, 李 镶, 华会明, 周 微, 赵余庆

• 药事管理 •

- 4223 基于互联网模式下的中医药个体化智慧诊疗服务模式研究
林瑞华, 张雨恬, 王学成, 陈 浩, 李远辉, 王雅琪, 熊旺平
程春雷, 朱彦陈, 李智彪, 余 琨, 藏振中, 郑 琴, 杜建强
伍振峰, 杨 明

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 - 13

CHINESE TRADITIONAL AND HERBAL DRUGS

Vol. 53 No. 13 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 •

- 3889** Consideration and practice on pharmaceutical research and evaluation of “patient-focused” new traditional Chinese medicine
ZHOU Yue-hua

• Chemical Constituents •

- 3897** Chemical constituents from *Rubi Fructus*
WANG Jing-yi, YU Jun-dong, CHEN Yue, DU Jun, WU Xiao-hong, LI Yi-ming, WANG Rui, CHEN Liang, WU Ying-chun

- 3904** Metabolites from *Penicillium chrysogenum* MT-40, an endophytic fungus isolated from *Huperzia serrata*
JIA Fang-fang, QI Bo-wen, ZHANG Bei-bei, WANG Wen-jing, WANG Yang, SHI Fan-yu, LIU Xiao, ZHU Zhi-xiang, WANG Juan, SHI She-po

- 3912** Lignans from leaves of *Magnolia liliiflora* and their anti-inflammatory activities
DING Lin-fen, LIU Jia, SONG Jing-feng, LEI Tie, NIE Wei, SONG Liu-dong, WU Xing-de

- 3920** Influence evaluation of processing on chemical composition of Baizhu Shaoyao Powder based on UHPLC-Q-TOF-MS technique
LIU Xiao, SUN Kan-ping, QIN Kun-ming, JIN Jun-jie, YANG Chao, CAI Bao-chang

• Pharmaceutics and Technology •

- 3929** Preparation of Sanwujiao extract-hydrogel and its therapeutic effect on rheumatoid arthritis
XIAO Su-yun, LUO Cai-qin, LYU Dong, WANG Cheng-xiao, CUI Xiu-ming

- 3940** Research on *Rehmanniae Radix* processed products in classical prescription Qingwei Powder based on chemical characteristics and core functions
WANG Min, LIU Huan-huan, ZHANG Ting, YU Yin-ping, PAN Jin-huo, JI De, SU Lian-lin, LU Tu-lin, LI Lin, CHENG Xiao-li

- 3953** Taste masking of Triphala Buccal Tablets by pH regulation based on the polyphenol-salivary protein interaction
ZHENG Yu, XIE Xing-liang, LIU Jun, HAN Li, LIN Jun-zhi, FAN San-hu, MO Tai-gang, ZHANG Ding-kun, HAN Xue

- 3962** Optimization of inclusion process of Xiangguo Jianxiao Pian volatile oils based on the information entropy method and its characterization
HAO Jia-xu, ZHA Li-chun, FAN Xiao, CUI Li-li, GAO Jia-ju, ZENG Peng-hui, WU Xu-run, MA Yun-shu

- 3972** Study on antioxidant activity of volatile oil from Jinhua Qinggan Granules based on reactive headspace system *in situ*
DING Gang-xin, YIN Jin-fang, CUI En-hao, ZOU Wei, SHI Feng, ZHAO Jian-song, XIONG Hua-bin, YANG Zhi, GAO Yun-tao

- 3980** Preparation, characterization and *in vivo* pharmacokinetics of ellagic acid nanosuspensions
QIN Fang-fang, PENG You-mei, SU Hai-bo, GAO Shou-jia

- 3991** Determination of 12 components in Bufei Huoxue Capsule by UHPLC
LI Quan, REN Hui, GUO Sheng, WANG Heng-bin, GENG Wan-li, QIAN Da-wei, DUAN Jin-ao

• Pharmacological Studies and Clinical Observations •

- 3997** Mechanism of butyl alcohol extract of Baitouweng Decoction on ulcerative colitis in mice colonized by *Candida albicans* based on NLRP3 inflammasome
WANG Ya-dong, XU Zhi-qing, XIA Dan, ZHANG Meng-xiang, WANG Tian-ming, SHAO Jing, WANG Chang-zhong

- 4007** Diuretic effect and mechanism of *Kansui Radix* and its prepared products on water-loaded mice through TLR4/NF- κ B/NLRP3 and PI3K/Akt signaling pathways
NING Chen-xu, SU Xiao-juan, REN Ke-le, LIU Xiao-qin, MENG Xiang-long, ZHAO Cai-rong, ZHAO Hong-yu, WANG Juan, ZHANG Shuo-sheng

- 4019** Effect of flavonoids in Qingfei Oral Liquid on necroptosis in RSV-infected mice
LING Xiao-ying, DING Ya-li, TAO Jia-lei, YUAN Bin

- 4028** Mechanism of ginsenoside Rb₁ on improving restraint stress and lipopolysaccharide-induced immune liver injury in mice
WANG Guo-en, YANG Fan, LIU Xin-yu, YE Yu-jing, WANG Ruo-hong, LYU Xi-ting, LIU Xiao-ting

- 4035** Tissues distribution of alkaloids from *Uncaria rhynchophylla* in rats by UHPLC-MS/MS
WU Yi-song, LI Shi-wei, LI Hao-ju, WEI Wen-long, WU Shi-fei, GUO De-an

- 4046** Effect and mechanism of oridonin on breast cancer cells based on IL-6/STAT3 signaling pathway
LI Nai-wei, WANG Fei, RAO Zi-zhao, WANG Jian-shi

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 12, 2022

Editor in Charge of English

JIANG Dan

Editor in Charge of This Issue

WANG Wen-qian

- 4053** Prediction of adverse reactions of traditional Chinese medicine compound based on proteomics and LINCS database: A case study of Huanglian Jiedu Decoction
SHANG Jin-feng, LI Qian-nan, JIANG Ting-yue, JIAO Jia-kang, BI Lei, WANG Jing-yi, LIU Xin
• **Data Mining and Evidence-Based Medicine** •
- 4065** Compatibility characteristics and epitaxy analysis of *Ziziphi Spinosae Semen-Polygoniae Radix* herb pair based on data mining of ancient and modern TCM prescriptions
REN Hai-qin, KONG Xiang-peng, WANG Ying-li
- 4075** Hot spots and frontier analysis of traditional Chinese medicine pharmacy administration research based on CiteSpace visualization atlas
RONG Hong-guo, MA Yi-xin, DU Mei-jiao, FEI Yu-tong
- 4084** Efficacy and safety of oral kidney-tonifying Chinese patent medicines in treatment of postmenopausal osteoporosis: A network Meta-analysis
WANG Zhen, WANG Cong-an, WANG Yong-quan, LI Xu-jie, ZHOU Zi-yang, ZHANG Li-juan, LI Miao-xiu
- **Medicinal Materials** •
- 4100** Cloning of *PcHAD* gene from *Pogostemon cablin* and functional analysis of its involvement in biosynthesis of patchouli alcohol
WU Dai-di, HUANG Hui-ling, SHAN Yao-kai, ZOU Xuan, GONG Li-zhen, ZHAN Ruo-ting, CHEN Li-kai
- 4109** Effects of combined application of fertilizer on gene expression of three sesquiterpenes and two key biosynthesis enzymes in *Atractylodes chinensis*
WANG Meng-cong, WENG Li-li, SUN Jin, XIAO Chun-ping, CHEN Tian-li
- 4119** Analysis of UPLC fingerprint and genetic relationships of Sect. *Chrysanthella*
GAO Hui, HE Qui-mei, Bai Yan-yuan, LI Yao-yan, YAN Guo-yue, YAO Han-ya, TIAN Liang, LIU Bo, SU Hong-xin, BORJIGIDAI Almaz, XIE Yang-jiao
- 4125** Quality comparison of *Ginkgo biloba* leaves from different sources based on UPLC fingerprint and flavonoid glycosides content
HUANG Shen, ZHU Bo, ZHANG Qiao-yan, LIN Liu-fen, YOU Jin-ling, MENG Xiong-yu, ZHANG Quan-long, QIN Lu-ping
- **Reviews** •
- 4132** Research progress on molecular mechanism of traditional Chinese medicine in treatment of Alzheimer's disease
ZHANG Chen-xi, DONG Cheng-yu, HU Xin, ZHENG Hui-hui, LANG Wei-ya
- 4146** Research progress on effects of flavonoids against hepatic fibrosis and their mechanisms
MA Ting, KUANG Xiao-lan, CAI Wan-na, LIU Bo, XU Fang-fang
- 4162** Research progress on improving diabetes and its complications of active ingredients of *Moutan Cortex*
WU Lin-lin, LI Zhi-peng, CAO Shi-jie, KANG Ning
- 4170** Research progress on prevention and treatment of hepatotoxicity induced by *Gardenia jasminoides*
YANG Xin-rong, DOU Xia, LI Guo-feng, SONG Qin-jie, LI Xian-wei, WU Hong-wei, LI Dong-hui, LI Yue-feng
- 4177** Advances in studies on chemical structure characterization and pharmacological activities of polysaccharides from marine plants
TENG Hao, LI Xue-ying, SUN Hui, DAI Rui, LI Cai-lin, HE Zhi-gui
- 4187** Research advances on anti-tumor effects of plants of *Akebia* extracts
CAO Lin-na, PENG Pei-ke, PAN Zhi-qiang
- 4198** Research progress on chemical constituents, pharmacological effects and clinical applications of *Aucklandiae Radix* and prediction analysis on Q-Marker
ZHENG Jia-mei, SHANG Ming-yue, WANG Jia-le, DAI Guo-na, SONG Jing-yuan, DUAN Bao-zhong
- 4214** Research progress of flavonoids and extraction processes in persimmon leaves
WANG Meng-jie, LI Gao, HUA Hui-ming, ZHOU Wei, ZHAO Yu-qing
- **Pharmaceutical Affairs Management** •
- 4223** Research on individualized intelligent diagnosis and treatment service mode of traditional Chinese medicine based on internet mode
LIN Rui-hua, ZHANG Yu-tian, WANG Xue-cheng, CHEN Hao, LI Yuan-hui, WANG Ya-qi, XIONG Wang-ping, CHENG Chun-lei, ZHU Yan-chen, LI Zhi-biao, YU Ying, ZANG Zhen-zhong, ZHENG Qin, DU Jian-qiang, WU Zhen-feng, YANG Ming