



ZHONGCAOYAO

Chinese Traditional and Herbal Drugs

第 57 卷 第 15 期 (总第 818 期)

2026 年 8 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.tjpr.com)

中 国 药 学 会 (www.cpa.org.cn)

编辑出版

《中草药》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.tiprpress.com

www.中草药杂志社.中国

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 陈士林

执行主编 陈常青

## 目 次

### · 化学成分 ·

- 5789 山楝枝叶中 1 个新的半日花烷型二萜  
孙出香, 蒲婉君, 李金玉, 刘翰飞, 张 妮, 潘卫东
- 5799 裸花紫珠中 1 个新的单萜类化合物及其抗 MRSA 活性评价  
唐 宇, 陈 昊, 王建斌
- 5806 裕丹参中 1 个新水溶性酚酸  
任英杰, 曾梦楠, 张明亮, 陈小菲, 郑晓珂, 唐进法  
任献青, 冯卫生
- 5814 基于  $\text{Fe}_3\text{O}_4/\text{SiO}_2/\text{PPL}$  的掌叶大黄胰脂肪酶抑制剂高效筛选及抗肥胖机制研究  
武晓玉, 陶子豪, 迪丽尼孜尔·阿布都艾尼, 张欣艺, 吴国泰  
魏舒畅, 段文达, 潘燕龙, 赵 磊, 马银云

### · 药剂与工艺 ·

- 5825 基于成分-药效关联的不同炮制工艺鲜竹沥品质特征与止咳祛痰作用研究  
于慧钺, 伍振峰, 鱼欢欢, 曹 莹, 张 询, 杨 明  
但 谦, 张雨恬
- 5837 基于成分状态定量模型分析丹参-苦参配伍过程中丹酚酸 B-苦参碱的酸碱复合反应规律  
邢丹彤, 张子涵, 于灵鹭, 支兴蕾, 董政起, 李存玉
- 5848 柴胡皂苷 D-大麻二酚自组装纳米粒的制备及细胞药效学评价  
俞泽如, 张 怡, 于忆骅, 孙 琦, 宋国虎, 余 马  
陈 华, 辛 超
- 5859 基于多成分控制与颜色关联分析的槐米炮制工艺优化研究  
孟凡淼, 李 宁, 张泽昭, 王鑫国, 牛丽颖
- 5874 负载姜黄素可打印氨基酸基低共熔凝胶敷料制备及其体外性能和治疗口腔溃疡药效作用研究  
关晓朵, 严文政, 李惠杰, 杨根生, 杨庆良, 贺 悦
- 5890 基于 HPLC 指纹图谱、Q-TOF-MS/MS 和模式识别定性分析与多成分定量相结合的金荞麦片质量评价  
曹 溢, 何 梦, 戴 莹, 李余佳, 杨军炎, 窦志华

### · 药理与临床 ·

- 5902 桑黄素通过调控 PI3K/Akt 通路抑制胃癌细胞的作用机制  
崔宇彤, 贺 立, 李俊杰, 侯 毅, 薄思涵, 由 涌, 刘 镭  
高亚贤, 王永为
- 5915 蔓荆子黄素通过调控肠道菌群介导的补体凝血级联通路改善炎症相关性结直肠癌作用  
曹 景, 陈 洋, 郭新志, 孙 梧, 陈澳琳, 王晓芬, 李凤琴  
罗 平, 王 芳
- 5931 土贝母苷乙通过调控 PI3K/Akt 通路及 LLGL2 泛素化抑制结直肠癌细胞增殖和肺转移  
张甜甜, 黄家彦, 钟 昊, 杨坤坤, 于海洋
- 5942 大豆异黄酮对缺血性脑卒中的保护作用及机制  
张 月, 金 畅, 李 冰, 程志锋, 王 晶, 郑梅竹
- 5953 基于网络药理学、分子对接和实验验证研究天麻钩藤饮改善高血压血管内皮损伤的作用及机制  
王 洁, 寿迪文, 周衡朴
- 5967 基于 UPLC-MS/MS 和解析电离喷雾电离-质谱成像技术探究生、熟大黄在脑中动脉栓塞再灌注大鼠体内的药物代谢差异  
徐旭阳, 孙淑竹, 刘学芳, 赵 迪, 李荣荣, 郑历史, 冯素香



ZHONGCAOYAO

Chinese Traditional and Herbal Drugs

第 57 卷 第 15 期 (总第 818 期)

2026 年 8 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 60.00 元 全年 1440.00 元

封面图片提供

袁井泉

英文责任编辑

王祎然

本期责任编辑

郑礼胜

• 数据挖掘与循证医学 •

- 5982 中药专利国际布局与技术竞争态势比较研究: 基于 5 个国家的实证考察 张馨元, 杭火娟, 郭泊池, 吴玲燕, 滕爽爽, 束雅春
- 5999 基于生信分析和网络药理学探究华蟾素缓解奥沙利铂所致周围神经毒性的作用机制 陈公伯, 刘 恋, 王鑫月, 王翕慧, 许婧格, 徐 青, 刘亚云, 盛德乔, 黄益玲, 尤程程, 郭煜晖, 邹昱琳, 杨 轶
- 6015 基于知识图谱与全球专利布局分析巴豆的研究热点及前瞻趋势 计婷婷, 林合华, 程铭溪, 赵君谊, 薛文轩, 施 铮, 王小丁
- 6037 宁泌泰胶囊治疗慢性前列腺炎(湿热蕴结证)的临床综合评价 王馥丽, 刘福梅, 董晗硕, 谢雁鸣

• 药材与资源 •

- 6045 响应 MeJA 诱导的积雪草苷合成关键结构基因的 WGCNA 筛选及表达验证 苏慧君, 华 亮, 张冰冰, 罗 鸣, 苗玉煊, 刘大会, 苏 威
- 6053 宣木瓜中黄酮类化合物合成相关 R2R3-MYB 转录因子家族鉴定及组织特异性表达分析 戚康茹, 汪思嘉, 梁 华, 方清影, 梁 娟, 余函纹, 查良平
- 6066 枸杞 LbbHLH94-like 克隆、表达及在类胡萝卜素合成中的调控功能研究 刘 翔, 刘 璇, 胡 诗, 党佳丽, 余 萍, 宋雅蝶, 岳思君, 郑 蕊
- 6077 基于 DNA 特征序列标记的天山雪莲基原鉴定研究 王多梅, 蒲婧哲, 胡 冲, 张亚中, 袁 媛
- 6085 基于指纹图谱和多指标成分含量测定结合化学计量学评价不同产地决明子质量 张雨晴, 何民友, 栗春枝, 周湘媛, 马懿飞, 罗文汇, 孙冬梅

• 综 述 •

- 6096 中药谱效研究过程中存在的问题 江雨梅, 苟馨月, 廖清惠, 刘 涛, 李正文
- 6108 药用植物丹参相关微生物研究进展 李 珊, 高玉娟, 李绕静, 陈 娟
- 6122 基于免疫-炎症调控的苦参“药效-毒性”平衡及其物质基础研究进展 陶诗颖, 张 洋, 沈建伟, 王玉洁, 李锦萍, 李加友, 于 单
- 6137 蜜炙黄芪的炮制工艺及质量评价研究进展 张伊凡, 万梓豪, 刘清飞, 王昌利, 孙 静, 赵重博
- 6151 迁移学习在抗抑郁药物作用与机制研究中的应用进展 贺 野, 贾崇宁, 谢佳美, 赵云昊, 郁 磊, 田俊生
- 6160 道地药材的鉴定策略及研究进展 赵豫音, 王 龙, 陆 续
- 6172 芳香开窍药在阿尔茨海默病防治中的药理研究与应用 何海丽, 李 媛, 王红艳, 张 璨, 袁先江, 杨弘玮, 陈绍旭, 钱海兵
- 6183 小檗碱的药理作用及其作用机制研究进展 赵晓静, 陆 珊, 张天柱, 雷慧玲, 李俊仪, 尹响利, 木廷赛尔·买买提托合提, 赵崇军, 吴嘉瑞

• 药事管理 •

- 6201 《中药生产监督管理专门规定》的制度逻辑与实施路径思考 张体灯, 万 顺, 杨迪雅, 郭 颖, 刘 春, 王海南

本刊投稿须知见《中草药》2026, 57(1): 390-392.

期刊基本参数: CN 12-1108/R \* 1970 \* sm \* A4 \* 240 \* zh \* P \* ¥ 60.00 \* 3000 \* 34 \* 2026-15

# CHINESE TRADITIONAL AND HERBAL DRUGS

Vol. 57 No. 15 August 2026

## Chinese Traditional and Herbal Drugs

(Semimonthly)

Founded in January, 1970

## Supervised 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

CHEN Shilin

## Executive Editor-in-chief

CHEN Changqing

## Contents

### • Chemical Constituents •

- 5789 A new labdane-type diterpenoid from branches and leaves of *Aphanamixis polystachya*  
SUN Chuxiang, PU Wanjuan, LI Jinyu, LIU Hanfei, ZHANG Ni, PAN Weidong
- 5799 A new monoterpene from *Callicarpa nudiflora* and its anti-MRSA activity  
TANG Yu, CHEN Hao, WANG Jianbin
- 5806 A new water-soluble phenolic acid from *Salvia miltiorrhiza*  
REN Yingjie, ZENG Mengnan, ZHANG Mingliang, CHEN Xiaofei, ZHENG Xiaoke, TANG Jinfa, REN Xianqing, FENG Weisheng
- 5814 High-efficiency screening of pancreatic lipase inhibitors of *Rheum palmatum* based on Fe<sub>3</sub>O<sub>4</sub>@SiO<sub>2</sub>/PPL and their anti-obesity mechanism study  
WU Xiaoyu, TAO Zihao, ABUDUAINI Dilinigaer, ZHANG Xinyi, WU Guotai, WEI Shuchang, DUAN Wenda, PAN Yanlong, ZHAO Lei, MA Yinyun

### • Pharmaceutics and Technology •

- 5825 Quality characteristics and antitussive and expectorant effects of *Bambusae Succus* prepared by different processing methods based on component-pharmaceutical effect associations  
YU Huicheng, WU Zhenfeng, YU Huanhuan, CAO Xuan, ZHANG Xun, YANG Ming, DAN Qian, ZHANG Yutian
- 5837 Analysis of acid-base complexation reaction patterns of salvianolic acid B and matrine during compatibility of *Salviae Miltiorrhizae Radix et Rhizoma* and *Sophorae Flavescentis Radix* based on quantitative model of component states  
XING Dantong, ZHANG Zihan, YU Guilu, ZHI Xinglei, DONG Zhengqi, LI Cunyu
- 5848 Preparation and cytopharmacology evaluation of self-assembled saikosaponin D-cannabidiol nanoparticles  
YU Zeru, ZHANG Yi, YU Yihua, SUN Qi, SONG Guohu, YU Ma, CHEN Hua, XIN Chao
- 5859 Optimization of processing technology for *Sophora Japonica* based on correlation analysis between multi-component control and color correlation analysis  
MENG Fanmiao, LI Ning, ZHANG Zezhao, WANG Xinguo, NIU Liying
- 5874 Preparation, *in vitro* performance, and therapeutic efficacy against oral ulcers of curcumin-loaded printable amino acid-based deep eutectic gel dressings  
GUAN Xiaoduo, YAN Wenzheng, LI Huijie, YANG Gensheng, YANG Qingliang, HE Yue
- 5890 Quality evaluation of *Fagopyri Dibotryis Rhizoma* Tablets based on qualitative analysis of HPLC fingerprint, Q-TOF-MS/MS and pattern recognition qualitative analysis combined with quantitative analysis of multi-constituents  
CAO Yi, HE Meng, DAI Ying, LI Yujia, YANG Junyan, DOU Zhihua

### • Pharmacological Studies and Clinical Observations •

- 5902 Mechanism of morin in inhibiting gastric cancer cells by regulating PI3K/Akt pathway  
CUI Yutong, HE Li, LI Junjie, HOU Yi, BO Sihan, YOU Yong, LIU Lei, GAO Yaxian, WANG Yongwei
- 5915 Casticin improves colitis-associated colorectal cancer by regulating gut microbiota-mediated complement and coagulation cascades  
CAO Jing, CHEN Yang, GUO Xinzhi, SUN Wu, CHEN Aolin, WANG Xiaofen, LI Fengqin, LUO Ping, WANG Fang
- 5931 Tubeimoside II inhibits colorectal cancer cell proliferation and lung metastasis through PI3K/Akt pathway and regulation of LLGL2 ubiquitination  
ZHANG Tiantian, HUANG Jiayan, ZHONG Hao, YANG Shenshen, YU Haiyang
- 5942 Protective effect and mechanism of soybean isoflavones on ischemic stroke  
ZHANG Yue, JIN Chang, LI Bing, CHENG Zhifeng, WANG Jing, ZHENG Meizhu
- 5953 Effect and mechanism of Tianma Gouteng Yin in improving hypertensive vascular endothelial injury based on network pharmacology, molecular docking and experimental verification  
WANG Jie, SHOU Diwen, ZHOU Hengpu
- 5967 Differences in drug metabolism of raw and processed *Rhei Radix et Rhizoma* in rats with middle cerebral artery occlusion and reperfusion based on UPLC-MS/MS and desorption electrospray ionization mass spectrometry imaging  
XU Xuyang, SUN Shuding, LIU Xuefang, ZHAO Di, LI Rongrong, ZHENG Lishi, FENG Suxiang

## 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

## Publication Date

August 12, 2026

## Editor in Charge of English

WANG Yiran

## Editor in Charge of This Issue

ZHENG Lisheng

## · Data Mining and Evidence-Based Medicine ·

- 5982** Comparative study on international patent layout and technological competition trends of traditional Chinese medicine: An empirical analysis based on five countries  
ZHANG Xinyuan, HANG Huojian, GUO Bochi, WU Lingyan, TENG Shuangshuang, SHU Yachun
- 5999** Exploring mechanisms of Huachansu in alleviating oxaliplatin-induced peripheral neuropathy via bioinformatic analysis and network pharmacology  
CHEN Gongbo, LIU Lian, WANG Xinyue, WANG Xihui, XU Jingge, XU Qing, LIU Yayun, SHENG Deqiao, HUANG Yiling, YOU Chengcheng, GUO Yuhui, ZOU Yulin, YANG Yi
- 6015** Analysis of research hotspots and prospective trends in *Croton tiglium* based on knowledge graphs and global patent layout  
JI Tingting, LIN Hehua, CHENG Nuoxi, ZHAO Junyi, XUE Wenxuan, SHI Zheng, WANG Xiaoding
- 6037** Clinical comprehensive evaluation of Ningmitai Capsules in treatment of chronic prostatitis (damp-heat accumulation syndrome)  
WANG Fuli, LIU Fumei, DONG Hanshuo, XIE Yanming

## · Medicinal Materials ·

- 6045** Screening and expression verification of key structural genes for asiaticoside synthesis in response to MeJA induction based on WGCNA  
SU Huijun, HUA Liang, ZHANG Bingbing, LUO Ming, MIAO Yuhuan, LIU Dahui, SU Wei
- 6053** Identification and tissue-specific expression analysis of R2R3-MYB transcription factor family related to flavonoid biosynthesis in *Chaenomeles speciose*  
QI Kangru, WANG Sijia, LIANG Hua, FANG Qingying, LIANG Juan, YU Hanwen, ZHA Liangping
- 6066** Cloning, expression and carotenoid synthesis-regulating function of LbbHLH94-like in *Lycium barbarum*  
LIU Shuo, LIU Xuan, HU Shi, DANG Jiali, SHE Ping, SONG Yadie, YUE Sijun, ZHENG Rui
- 6077** Original identification of *Saussurea involucrata* based on DNA signature sequence tags  
WANG Duomei, PU Jingzhe, HU Chong, ZHANG Yazhong, YUAN Yuan
- 6085** Quality evaluation of *Cassiae Semen* from different origins based on fingerprint and multi-indicator component content determination combined with chemometrics  
ZHANG Yuqing, HE Minyou, SU Chunzhi, ZHOU Xiangyuan, MA Yifei, LUO Wenhui, SUN Dongmei

## · Reviews ·

- 6096** Problems existing in process of spectrum-effect research on traditional Chinese medicine  
JIANG Yumei, GOU Xinyue, LIAO Qinghui, LIU Tao, LI Zhengwen
- 6108** Research progress on microorganisms associated with medicinal plant *Salvia miltiorrhiza*  
LI Shan, GAO Yujuan, LI Raojing, CHEN Juan
- 6122** Research progress on “efficacy-toxicity” balance and material basis of *Sophorae Flavescentis Radix* based on immune-inflammatory regulation  
TAO Shiyong, ZHANG Yang, SHEN Jianwei, WANG Yujie, LI Jinping, LI Jiayou, YU Dan
- 6137** Research progress on processing technology and quality evaluation of honey-roasted *Astragali Radix*  
ZHANG Yifan, WAN Zihao, LIU Qingfei, WANG Changli, SUN Jing, ZHAO Chongbo
- 6151** Research progress on application of transfer learning effects and mechanisms of antidepressants  
HE Ye, JIA Chongning, XIE Jiamei, ZHAO Yunhao, YU Lei, TIAN Junsheng
- 6160** Identification strategies and research advancements of genuine medicinal materials  
ZHAO Yuyin, WANG Long, LU Xu
- 6172** Pharmacological research and application of aromatic orifice-opening drugs in prevention and treatment of Alzheimer’s disease  
HE Haili, LI Yuan, WANG Hongyan, ZHANG Can, YUAN Xianjiang, YANG Hongwei, CHEN Shaoxu, QIAN Haibing
- 6183** Advances in pharmacological action and mechanism of berberine  
ZHAO Xiaojing, LU Shan, ZHANG Tianzhu, LEI Huiling, LI Junyi, YIN Xiangli, MAIMAITITUOHETI·Mutingsaier, ZHAO Chongjun, WU Jiarui

## ·Pharmaceutical Affairs Management ·

- 6201** Reflections on institutional logic and implementation pathways based on “Special Provisions for the Supervision and Administration of Traditional Chinese Medicine Production”  
ZHANG Tideng, WAN Shun, YANG Diya, GUO Ying, LIU Chun, WANG Hainan