



中文核心期刊
CSCD来源期刊

ISSN 1000-2421
CODEN HNDXEK

华中农业大学学报

JOURNAL OF HUAZHONG AGRICULTURAL UNIVERSITY

Vol.40 No.1



2021.1
中国·武汉
WUHAN CHINA

而获

《华中农业大学学报》创刊65周年暨复刊40周年

华中农业大学学报
(自然科学版)
HUAZHONG NONGYE
DAXUE XUEBAO
(Ziran Kexue Ban)

(1956 年创刊, 双月刊)

1
2021
第 40 卷

主编: 张献龙
执行主编: 杨锦莲
副主编: 李斌 徐强
苗义良 范敬群
* * *

本期统稿编辑: 张志钰



《华中农业大学学报》创刊65周年暨复刊40周年

特别策划: 柑橘产业研究专题

植物类胡萝卜素和花青苷代谢响应光信号的转录调控机制

..... 付佳玲, 徐强(1)

柑橘营养特性与“以果定肥”

..... 武松伟, 梁珊珊, 谭启玲, 陈敏, 王诗慧, 彭柱青, 胡佳玉, 胡承孝(12)

柑橘果实枯水的生理及分子机制研究进展

..... 吴黎明, 宋放, 王策, 王志静, 何利刚, 彭抒昂, 蒋迎春, 刘继红(22)

柑橘果实风味组学研究进展

..... 张海朋, 彭昭欣, 石梅艳, 温欢, 张红艳, 徐娟(32)

柑橘果汁中的苦味物质及脱苦技术研究进展

..... 张娜威, 潘思轶, 范刚, 任婧楠(40)

柑橘黄龙病药物防治策略 韩鹤友, 程帅华, 宋智勇, 丁芳, 徐强(49)

我国柑橘产业经济研究进展 祁春节, 顾雨檬, 曾彦(58)

磷减量配施锌肥对琯溪蜜柚果实产量和品质的影响

..... 刘怀伟, 谭启玲, 陈敏, 庄木来, 李潇彬, 胡承孝(70)

超声波协同护色剂浸渍工艺对橘瓣干制品色泽的影响

..... 孔梦洁, 祝林虎, 夏蒙蒙, 胡婉峰, 徐晓云, 潘思轶(77)

基于透射光谱技术的温州蜜柑含水率检测

..... 余怀鑫, 潘新星, 朱旭, 叶子凡, 祝志慧, 刘继红(86)

克氏原螯虾疾病防控与繁育专题

1 株克氏原螯虾肺炎克雷伯菌的分离鉴定及药物敏感性分析

..... 董靖, 张露珊, 刘绍春, 张国栋, 周顺, 杨秋红, 艾晓辉(93)

1 株克氏原螯虾摩氏摩根菌的分离鉴定及联合药敏试验

..... 董靖, 刘永涛, 肖宁, 刘绍春, 杨秋红, 杨移斌, 周顺, 艾晓辉(99)

稻虾综合种养模式下吡虫啉的富集与残留消除

..... 李司棋, 杨秋红, 何绪刚, 刘永涛, 董靖,

杨移斌, 肖宁, 艾晓辉, 刘绍春(105)

期刊基本参数 CN42-1181/S * 1956 * b * A4 * 235 * zh * P * ¥20.00 * 650 * 28 * 2021-01

- 不同温度下恩诺沙星在克氏原螯虾体内的药代动力学 王欢,许荔立,陈孝煊,袁军法,田丁,蒋飞,吴志新(112)
克氏原螯虾 sex-lethal 基因的克隆与表达分析 费佳敏,石林林,李艳和(120)
克氏原螯虾 *PcDsx* 基因的克隆及表达分析 石林林,陈家豪,石瑞雪,费佳敏,张龙,李艳和(129)

◆ 特约综述 ◆

- 磁弛豫生物传感器在食品安全快速检测中的应用研究进展 董永贞,吴紫荆,王知龙,陈翊平(137)

◆ 作物遗传改良与栽培 ◆

- 水稻核心种质资源茎秆抗倒伏性研究 袁新捷,刘潇,陈国兴(147)
油棕叶肉原生质体分离及瞬时转化体系的建立 王一菲,刘新星,张青,郑育声,李东栋(154)

◆ 资源与环境 ◆

- 基于标准化方法和统计分析法的土壤重金属环境基线值分析比较 范俊楠,贺小敏,杜维,熊晶,宋国强,张明杰,杨洁(160)
长期施用磷肥对稻-油轮作土壤磷组分及微生物多样性的影响 陈凤,王晓双,甘国渝,李燕丽,邹家龙,李继福(168)
土壤酸化对樱桃番茄养分积累和分配的影响 高国震,董治浩,胡承孝,谭启玲,李进学(179)
淋溶过程对亚高山针叶林土壤碳、氮海拔分布特征的影响 何晓丽,吴艳宏,周俊,马婷婷(187)
黄土高原南缘 S₅₋₁ 古土壤中胶膜的特征及其环境意义 彭瑾,连霞,李惠平,黄传琴(195)

◆ 食品与农业工程 ◆

- 鼓形与圆柱形杆齿式纵轴流脱粒滚筒功耗对比试验 谢干,张国忠,付建伟,周勇,王洋,高原,王伟康,Mohamed Anwer(202)
基于离散元仿真参数的微型薯物料测定 余参参,段宏兵,蔡兴奎,徐涛,姚飞虎,陈志惠,严福勇(210)
Ni-Mg/RHA 催化剂催化水蒸气焦油模型化合物重整反应研究 吴蔚,樊啟洲,易宝军,刘弼臣(218)
基于深度学习的水稻表型特征提取和穗质量预测研究 杨万里,段凌凤,杨万能(227)

JOURNAL OF HUAZHONG AGRICULTURAL UNIVERSITY

(Natural Science Edition)

Vol.40 No.1 January, 2021

CONTENTS

Special column: topics of citrus industry research

- Transcription regulation of plant carotenoids and anthocyanin metabolism in response to light signals FU Jialing, XU Qiang(1)
- Nutritional characteristics and determining amount of fertilizer by fruit nutrients removal in citrus WU Songwei, LIANG Shanshan, TAN Qiling, CHEN Min, WANG Shihui, PENG Zhuqing, HU Jiayu, HU Chengxiao(12)
- Progress of physiological and molecular mechanism in granulation of citrus fruits WU Liming, SONG Fang, WANG Ce, WANG Zhijing, HE Ligang, PENG Shuang, JIANG Yingchun, LIU Jihong(22)
- Advances on citrus flavoromics ZHANG Haipeng, PENG Zhaoxin, SHI Meiyuan, WEN Huan, ZHANG Hongyan, XU Juan(32)
- Bitter substances and progress of debittering technology in citrus juice ZHANG Nawei, PAN Siyi, FAN Gang, REN Jingnan(40)
- Strategies on drug prevention and control of citrus Huanglongbing HAN Heyou, CHENG Shuaihua, SONG Zhiyong, DING Fang, XU Qiang(49)
- Progress of citrus industry economy in China QI Chunjie, GU Yumeng, ZENG Yan(58)
- Effects of phosphorus reduction combined with zinc foliar fertilizer on yield and quality of Guanxi pomelo fruit LIU Huawei, TAN Qiling, CHEN Min, ZHUANG Mulai, LI Xiaobin, HU Chengxiao(70)
- Effects of color fixatives impregnating process combined with ultrasonic on color of dried orange slices products KONG Mengjie, ZHU Linhu, XIA Mengmeng, HU Wanfeng, XU Xiaoyun, PAN Siyi(77)
- Detecting water content of Satsuma mandarin based on transmission spectroscopy YU Huaixin, PAN Xinxing, ZHU Xu, YE Zifan, ZHU Zhihui, LIU Jihong(86)
- ### Disease prevention, control and breeding of *Procambarus clarkii*
- Isolation, identification and susceptibility analysis of pathogenic *Klebsiella pneumoniae* from diseased *Procambarus clarkii* DONG Jing, ZHANG Lushan, LIU Shaochun, ZHANG Guodong, ZHOU Shun, YANG QiuHong, AI Xiaohui(93)
- Identification and synergistic susceptibility test of pathogenic *Morganella morganii* isolated from diseased *Procambarus clarkii* DONG Jing, LIU Yongtao, XU Ning, LIU Shaochun, YANG QiuHong, YANG Yibin, ZHOU Shun, AI Xiaohui(99)
- Enrichment and residual elimination of imidacloprid in integrated rice and *Procambarus clarkii* breeding model LI Siqi, YANG QiuHong, HE Xugang, LIU Yongtao, DONG Jing, YANG Yibin, XU Ning, AI Xiaohui, LIU Shaochun(105)

Pharmacokinetics of enrofloxacin in *Procambarus clarkii* at different temperatures

..... WANG Huan, XU Lili, CHEN Xiaoxuan, YUAN Junfa, TIAN Ding, JIANG Fei, WU Zhixin(112)

Cloning and expression analyses of sex-lethal gene in *Procambarus clarkii* FEI Jiamin, SHI Linlin, LI Yanhe(120)

Molecular cloning and expression analysis of *PcDsx* in *Procambarus clarkii*

..... SHI Linlin, CHEN Jiahao, SHI Ruixue, FEI Jiamin, ZHANG Long, LI Yanhe(129)

Review

Progress of magnetic relaxation switching biosensors for rapid detection in food safety

..... DONG Yongzhen, WU Zijing, WANG Zhilong, CHEN Yiping(137)

Crop genetic improvement and cultivation

Stem lodging resistance of rice core germplasm YUAN Xinjie, LIU Xiao, CHEN Guoxing(147)

Isolation of oil palm mesophyll protoplasts and establishment of transient transformation system

..... WANG Yifei, LIU Xinxing, ZHANG Qing, ZHENG Yusheng, LI Dongdong(154)

Resources and environment

Analyzing and comparing environmental baseline values of heavy metals in soil based on standardized method and statistical method FAN Junnan, HE Xiaomin, DU Wei, XIONG Jing, SONG Guoqiang, ZHANG Mingjie, YANG Jie(160)

Effects of long-term application of phosphorus fertilizer on soil phosphorus fractions and microbial diversity in rice-rapeseed rotation CHEN Feng, WANG Xiaoshuang, GAN Guoyu, LI Yanli, ZOU Jialong, LI Jifu(168)

Effects of soil acidification on accumulation and distribution of nutrients in cherry tomato

..... GAO Guozhen, DONG Zhihao, HU Chengxiao, TAN Qiling, LI Jinxue(179)

Effects of leaching process on characteristics of altitudinal distribution of soil carbon and nitrogen in subalpine coniferous forest HE Xiaoli, WU Yanhong, ZHOU Jun, MA Tingting(187)

Characteristics and environmental significance of cutan in S_{5-1} paleosol on southern Chinese Loess Plateau

..... PENG Jin, LIAN Xia, LI Huijing, HUANG Chuanqin(195)

Food science and agricultural engineering

Comparing power consumption of drum and cylindrical rod-tooth longitudinal axial flow threshing roller

..... XIE Gan, ZHANG Guozhong, FU Jianwei, ZHOU Yong, WANG Yang, GAO Yuan, WANG Weikang, MOHAMED Anwer(202)

Discrete element simulation parameters-based measurement of materials for potato minituber

..... YU Cancan, DUAN Hongbing, CAI Xingkui, XU Tao, YAO Feihu, CHEN Zhihui, YAN Fuyong(210)

Steam reforming tar model compound with Ni-Mg/RHA catalyst ... WU Wei, FAN Qizhou, YI Baojun, LIU Bichen(218)

Deep learning-based extraction of rice phenotypic characteristics and prediction of rice panicle weight

..... YANG Wanli, DUAN Lingfeng, YANG Wanneng(227)

Serial parameters CN42-1181/S * 1956 * b * A4 * 235 * zh * P * ¥20.00 * 650 * 28 * 2021-01