

安徽农业大学学报

第 47 卷第 5 期 (总第 177 期) 2020 年 9 月

目 次

茶与食品科学

红茶化学成分及生理活性的研究进展·····徐 燕,朱 创,邵玲玲,孙明慧,解千金 (687)

固态生料酿造花椒籽复合米酒工艺优化及关键香气成分分析

·····张海艳,蒋 宾,王 琪,刘琨毅,刘倩葶,刘明丽,张正艳 (697)

紫薯淀粉对小麦淀粉凝胶特性的影响·····丁燕燕,韦冬梅,许 莉,周裔彬,杨丽萍,曹 川 (707)

林学

4 种无性系速生材杉木的材性比较研究·····沈 浩,吴玉乐,杨 冉,关 莹,刘盛全,高 慧 (713)

4 个核桃类树种苗木应对持续干旱的生理响应·····王寒茹,刘 华,李丕军,邢文曦,郑崇文 (722)

不同干燥方法对杉木吸湿及尺寸稳定性的影响·····高 鑫,周 凡,付宗营,江京辉,吴义强,周永东 (730)

浸渍热处理对杨木微观结构及尺寸稳定性的影响·····吴美卉,赵晨鹏,蔡家斌,金菊婉,孙照斌 (738)

基于近红外光谱技术预测两种进口材气干密度·····贾 茹,吴艳华,任海青,周永东,王玉荣 (744)

微生物群落构建对杉木凋落叶分解及其酶活性的影响·····陈明蓉,林永慧,何兴兵 (749)

基于遥感的平潭木麻黄生物量快速估算·····张丽莎,赖日文,马红艳,赖敏华,胡仁杰 (756)

资源与环境

长株潭城市群水环境承载力多目标优化研究·····彭述权,张珂嘉,彭亚辉,樊 玲 (763)

基于高光谱的土壤含水率预测模型·····刘晓舟,柳炳俊 (770)

基于改进云模型的区域水质评价研究·····赵梦婷,黄显峰,金国裕,何 骋 (778)

生物学

拟南芥 *AtWRKY33* 基因启动子的克隆及表达分析·····童晨晨,张 乘,樊婷婷,曹树青 (784)

植物凝集素 *MNB1* 基因启动子表达载体的构建及鉴定分析·····陈 峰,宋 慧,樊婷婷,曹树青 (789)

多花黄精的主要化学成分及抗氧化活性·····赵海洋,罗 禹,邓小宽,高 平 (793)

植物保护

多粘类芽孢杆菌 **S960** 抑制尖孢镰刀菌的活性物质分离纯化·····金美芳,丁可武,林茂兹,吴生钱,苏 芳 (798)

作物学

安农 0711 小麦品种 3B 染色体茎秆强度位点鉴定

···张海萍, 张钰岭, 卢杰, 王剑锋, 闵晓宇, 刘凯, 韩雷锋, 周燃, 丁辉, 司红起, 常成, 马传喜 (805)

异源表达玉米 *ZmC3H54* 基因增强水稻的耐旱性·····徐倩倩, 王玉 (812)

苦荞重组自交系群体籽粒性状遗传变异分析

·····郑冉, 黎瑞源, 吕丹, 郑俊青, 黄娟, 石桃雄, 陈庆富 (818)

纳米氧化铜对砷胁迫下水稻种子发芽及幼苗生长的影响

·····方清, 晏士玮, 崔彩云, 周彩玲, 吴凡, 李育健, 叶文玲 (826)

甘蓝型油菜 *BnaWRKY30-like* 基因 cDNA 序列克隆及生物信息学分析·····尹明智, 胡燕 (832)

侧深施用控释肥对机插中稻生长、产量及氮肥农学效率的影响

·····陈立才, 李艳大, 秦战强, 黄俊宝, 吴罗发, 王康军, 周明 (839)

园艺

梨咖啡酰辅酶 A-O-甲基转移酶基因 *PbCCoAOMT1* 的功能验证

·····刘鑫, 孙燕铭, 王涵, 章春雨, 王亮, 李春云, 张家辉, 金青, 林毅, 蔡永萍 (845)

外源钙对高温胁迫下苗期生姜生长及活性氧代谢的影响·····王兴翠, 张忠义, 彭佃亮, 张敬敏, 杨文霞 (851)

工程技术

山地果园液压驱动轨道运输机控制系统的设计·····李家学, 李善军, 张衍林, 曾杨康, 刘明迪, 高志远 (856)

面向农产品溯源的二维码信息及 APP 设计·····蒋广鑫, 杨联安, 谢元礼, 高志远, 周鹏 (863)

期刊基本参数: CN34-1162/S*1957*b*A4*182*zh*P*¥15.00*1000*27*2020-09

JOURNAL OF ANHUI AGRICULTURAL UNIVERSITY

Vol.47 No.5 Sep. 2020 Sum No.177

Contents

Tea and Food Science

Research advance on chemical components and biological activities of black tea

.....XU Yan, ZHU Chuang, TAI Lingling, SUN Minghui , XIE Qianjin (687)

Optimization of solid-state fermentation technology and analysis of key aroma components in *Zanthoxylum bungeanum* compound rice wine

by uncooked material method···ZHANG Haiyan, JIANG Bin, WANG Qi, LIU Kunyi, LIU Qianting, LIU Mingli, ZHANG Zhengyan (697)

Effect of purple sweet potato starch on gel properties of wheat starch

.....DING Yanyan, WEI Dongmei, XU Li, ZHOU Yibin, YANG Liping, CAO Chuan (707)

Forestry

Comparative study on wood properties of four clones of fast-growing *Cunninghamia lanceolata*

.....SHEN Hao, WU Yule, YANG Ran, GUAN Ying, LIU Shengquan, GAO Hui (713)

Impact of simulated drought stress on ecophysiological characteristics of four tree species in walnut family

.....WANG Hanru, LIU Hua, LI Peijun, XING Wenxi, ZHENG Chongwen (722)

Effects of high temperature drying on the hygroscopicity and dimensional stability of Chinese Fir

.....GAO Xin, ZHOU Fan, FU Zongying, JIANG Jinghui, WU Yiqiang, ZHOU Yongdong (730)

Effects of impregnation and heat-treatment on microstructure and dimensional stability of poplar

.....WU Meihui, ZHAO Chenpeng, CAI Jiabin, JIN Juwan, SUN Zhaobin (738)

The prediction of air-dry density of two imported wood by near infrared spectroscopy

.....JIA Ru, WU Yanhua, REN Haiqing, ZHOU Yongdong, WANG Yurong (744)

Effects of community assembly on litter decomposition and microbial activities of *Cunninghamia lanceolata*

.....CHEN Mingrong, LIN Yonghui, HE Xingbing (749)

Rapid estimation of *Casuarina equisetifolia* biomass based on remote sensing

.....ZHANG Lisha, LAI Riwen, MA Hongyan, LAI Minhua, HU Renjie (756)

Resources and Environment

Study on water environmental carrying capacity of Changsha-Zhuzhou-Xiangtan urban agglomeration

.....PENG Shuquan, ZHANG Kejia, PENG Yahui, FAN Ling (763)

Prediction model of soil moisture based on hyper-spectral technology.....LIU Xiaozhou, LIU Bingjun (770)

Study on regional water quality evaluation based on improved cloud model

.....ZHAO Mengting, HUANG Xianfeng, JIN Guoyu, HE Cheng (778)

Biology

Cloning and expression analysis of *AtWRKY33* gene promoter from *Arabidopsis thaliana*

.....TONG Chenchen, ZHANG Cheng, FAN Tingting, CAO Shuqing (784)

Construction and identification of plant expression vector of lectin *MNBI* gene promoter

.....CHEN Feng, SONG Hui, FAN Tingting, CAO Shuqing (789)

The main chemical constituents and antioxidant activities of *Polygonatum cyrtoneuma* Hua

.....ZHAO Haiyang, LUO Yu, DENG Xiaokuan, GAO Ping (793)

Plant Protection

The extraction and purification of the antifungal substances to the *Fusarium oxysporum* from the *Paenibacillus polymyxa* S960

.....JIN Meifang, DING Kewu, LIN Maozi, WU Shengqian, SU Fang (798)

Crop Science

Identification of a locus for stem strength on chromosome 3B in Annong0711.....ZHANG Haiping, ZHANG Yuling, LU Jie,

WANG Jianfeng, MIN Xiaoyu, LIU Kai, HAN Leifeng, ZHOU Ran, DING Hui, SI Hongqi, CHANG Cheng, MA Chuanxi (805)

Overexpression of a maize *ZmC3H54* gene enhances drought tolerance in transgenic rice.....XU Qianqian, WANG Yu (812)

Genetic variation analysis of seed traits in recombinant inbred lines population of tartary buckwheat

.....ZHENG Ran, LI Ruiyuan, LYU Dan, ZHENG Junqing, HUANG Juan, SHI Taoxiong, CHEN Qingfu (818)

Effects of copper oxide nanoparticles on germination and growth of rice seeds exposed to arsenic stress

.....FANG Qing, YAN Shiwei, CUI Caiyun, ZHOU Cailing, WU Fan, LI Yujian, YE Wenling (826)

Cloning and bioinformatics analysis of cDNA sequence of *BnaWRKY30-like* gene in *Brassica napus*.....YIN Mingzhi, HU Yan (832)

Effects of side deep apply controlled release fertilizer on growth, yield and nitrogen agronomic efficiency in transplanted

middle-season rice.....CHEN Licai, LI Yanda, QIN Zhanqiang, HUANG Junbao, WU Luofa, WANG Kangjun, ZHOU Ming (839)

Horticulture

Functional verification of pear caffeoyl coenzyme A-O-methyltransferase gene *PbCCoAOMT1*.....LIU Xin, SUN Yanming,

WANG Han, ZHANG Chunyu, WANG Liang, LI Chunyun, ZHANG Jiahui, JIN Qing, LIN Yi, CAI Yongping (845)

Effect of exogenous calcium on ginger growth and active oxygen metabolism at seedling stage under high temperature stress

.....WANG Xingcui, ZHANG Zhongyi, PENG Dianliang, ZHANG Jingmin, YANG Wenxia (851)

Engineering and Technology

Design of control device for hydraulic driven track transporter in mountain orchard

.....LI Jiaxue, LI Shanjun, ZHANG Yanlin, ZENG Yangkang, LIU Mingdi, GAO Zhiyuan (856)

The design of QR Code and APP for the origin trace of agricultural products

.....JIANG Guangxin, YANG Lianan, XIE Yuanli, GAO Zhiyuan, ZHOU Peng (863)