



2020  
中国精品科技期刊  
OUTSTANDING SCI JOURNAL OF CHINA  
全国中文核心期刊  
CSCD核心库期刊



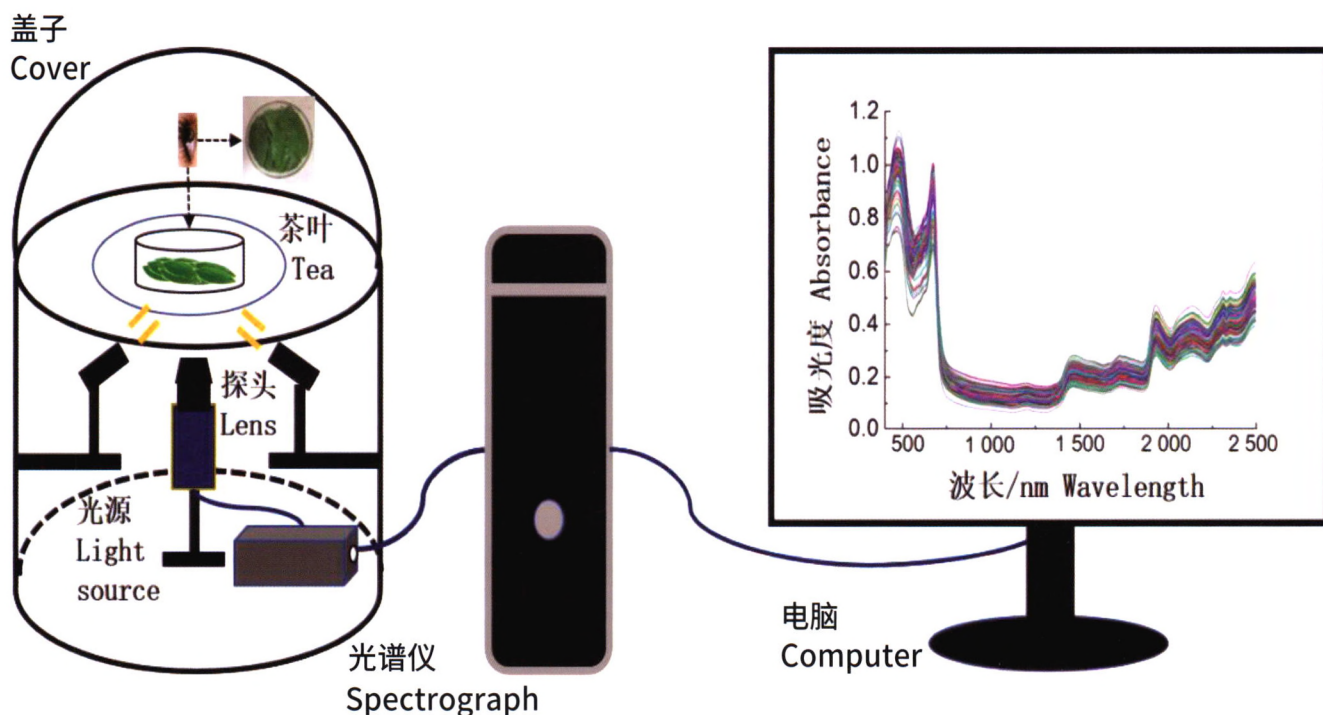
Q K 2 1 4 6 4 5 2

# 中国农业大学学报

JOURNAL OF CHINA AGRICULTURAL UNIVERSITY

基于卷积神经网络的茶鲜叶主要内含物的光谱快速检测方法

DOI:10.11841/j.issn.1007-4333.2021.11.11



Vol. 26 No. **11** 2021

目次

|                                          |              |
|------------------------------------------|--------------|
| 玉米南方锈菌在玉米品种上的相对寄生适合度研究                   |              |
| ..... 黄莉群 张克瑜 李磊福 董佳玉 孙秋玉 邓杰 马占鸿(1)      |              |
| 延迟收获对长江中游春玉米农艺性状及机收质量的影响                 |              |
| ..... 刘志辉 展茗 梁如玉 王燕 刘永忠 黄益勤 杨仁能 尚春辉(10)  |              |
| 基于灾情数据的河北省冬小麦气象灾害与病虫害规律分析                |              |
| ..... 魏玉凯 安萍莉 张国梁 江丽 孟丽君(23)             |              |
| ‘苯磺隆’对不同谷子品种叶片光合特性的影响                    |              |
| ..... 畅灼卓 王雅情 赵夏童 王彧瑶 马珂 原向阳 董淑琦(35)     |              |
| 转基因大豆‘ZH 10-6’数字 PCR 精准定量检测方法的建立         |              |
| ..... 刘双 赵新 李瑞环 刘娜 兰青阁 檀建新 王永(49)        |              |
| 滞绿突变对大豆叶片蔗糖代谢相关基因表达的影响                   |              |
| ..... 王鹏 侯思宇 温宏伟 李贵全(59)                 |              |
| 甘蔗及甘蔗近缘属内生菌的筛选、鉴定与功能研究                   |              |
| ..... 狄义宁 谢林艳 谷书杰 马豪 刘鲁峰 何丽莲 李富生(70)     |              |
| 固沙先锋树种沙柳枝条力学特性及其影响因素                     |              |
| ..... 王争贤 格日乐 崔天民 郝需婷 张永亮 斯琴(84)         |              |
| 北京地区梨树主要病毒和类病毒检测                         |              |
| ..... 曾棋 黄闻霆 池海 王胜男 姜峰 李天忠 程玉琴(97)       |              |
| 杜梨组培苗两步生根技术体系优化                          |              |
| ..... 赵亚楠 张懿 谭旭 王胜男 姜峰 李天忠 朱元娣(105)      |              |
| 基于卷积神经网络的茶鲜叶主要内含物的光谱快速检测方法               |              |
| ..... 李晓丽 张东毅 董雨伦 金娟娟 何勇(113)            |              |
| 黑皮油松松针精油纳米乳液的制备及稳定性研究.....               | 王雪薇 李德海(123) |
| 基于 LC-MS/MS 分析不同蛋白酶酶解奶牛胎盘产物差异及其抗氧化活性预测   |              |
| ..... 张钺 尤留超 朱颖琨 莘余 吕尚揆 裴森毓 傅宏庆 沈留红(133) |              |
| 干酪乳杆菌对雏鸡空肠黏膜结构及炎性因子水平的影响                 |              |
| ..... 王秋珍 邓自腾 刘雪连 闫雪 宋维平 韩德平 马云飞(142)    |              |

灵芝孢子粉和大豆异黄酮对文昌鸡生长性能、肉品质及抗氧化能力的影响  
..... 王一冰 顾丽红 叶金玲 范秋丽 张盛 陈志龙 林哲敏 蒋守群(148)

一株犬副流感病毒 CPIV-BJ01 株全基因组测序与其遗传变异分析  
..... 刘子宁 魏津 汤新明 梁琳 崔尚金(157)

餐厨垃圾堆肥对水稻生长、产量及土壤养分含量的影响  
..... 满吉勇 林永锋 李丛林 袁凯 吴东雷 田光明 李季 刘云慧(165)

原料含水率对筒仓式反应器堆肥氮素转化的影响  
..... 徐鹏翔 沈玉君 周海宾 孟海波 李季 段崇东(180)

臭氧水应用于温室土壤消毒的探究..... 张涵 郑亮 黄卓 宋卫堂(189)

基于倾角传感器的割台高度自适应调节系统  
..... 龙震寰 向阳 李亚军 胡正方 刘安稳 代秀峰(200)

基于迁移学习的 GoogLeNet 果园病虫害识别与分级  
..... 万军杰 祁力钧 卢中奥 周佳蕊 张豪(209)

果园机械化经济效益分析  
——以江苏睢宁梨园为例..... 吕雍琪 张宗毅 吕晓兰(222)

粮食安全视角下省际耕地生态补偿的标准量化与机制构建  
..... 崔宁波 生世玉 方袁意如(232)

中国羊毛进口的替代弹性及可依赖性  
——基于 Armington 模型 ..... 郭延景 肖海峰(244)

农户对农膜回收政策执行的满意度评价及影响因素  
——来自新疆 1 057 户棉农数据的验证 ..... 翟雪玲 刘洋 张杰(253)

生活垃圾分类能引导源头农产品消费减量吗?  
——来自上海市的证据..... 祝华军 田志宏 杨学军(264)

中国村域城镇化演绎机制与路径设计..... 易忠君 王振中(275)

## CONTENTS

- Relative parasitic fitness of in *Puccinia polysora* different maize varieties  
..... HUANG Liqun, ZHANG Keyu, LI Leifu, DONG Jiayu,  
SUN Qiuyu, DENG Jie, MA Zhanhong (1)
- Effect of delayed harvest on the agronomic traits and mechanical harvest quality of  
spring maize in the middle reaches of the Yangtze River  
..... LIU Zhihui, ZHAN Ming, LIANG Ruyu, WANG Yan,  
LIU Yongzhong, HUANG Yiqin, YANG Renneng, SHANG Chunhui (10)
- Analysis on the occurrence rules of meteorological disasters and diseases and  
pests of winter wheat in Hebei Province based on disasters data  
..... WEI Yukai, AN Pingli, ZHANG Guoliang, JIANG Li, MENG Lijun (23)
- Effects of ‘Tribenuron-methyl’ on the photosynthetic characteristics of different foxtail millet varieties  
..... CHANG Zhuozhuo, WANG Yaqing, ZHAO Xiatong, WANG Yuyao,  
MA Ke, YUAN Xiangyang, DONG Shuqi (35)
- Establishment of digital PCR method for quantitative detection of genetically modified  
soybean ‘ZH10-6’ ..... LIU Shuang, ZHAO Xin, LI Ruihuan, LIU Na,  
LAN Qingkuo, TAN Jianxin, WANG Yong (49)
- Effects of stay-green mutation on the expression of sucrose metabolism-related genes in soybean leaves  
..... WANG Peng, HOU Siyu, WEN Hongwei, LI Guiquan (59)
- Screening, identification and biological function study of endophytic bacteria isolated  
from sugarcane and its related genera ..... DI Yining, XIE Linyan, GU Shujie,  
MA Hao, LIU Lufeng, HE Lilian, LI Fusheng (70)
- Mechanical properties of the branches of *Salix psammophila* and its influencing factors  
..... WANG Zhengxian, Gerile, CUI Tianmin, HAO Xuting, ZHANG Yongliang, SI Qin (84)
- Detection of major viruses and viroid in pear plants in Beijing area  
..... ZENG Qi, HUANG Wenting, CHI Hai, WANG Shengnan,  
JIANG Feng, LI Tianzhong, CHENG Yuqin (97)
- Optimizing two-step rooting techniques of *in vitro* cultured *Pyrus betuli folia*  
..... ZHAO Yanan, ZHANG Yi, TAN Xu, WANG Shengnan,  
JIANG Feng, LI Tianzhong, ZHU Yuandi (105)
- Spectral rapid detection of phytochemicals in tea (*Camellia sinensis*) based on  
convolutional neural network  
..... LI Xiaoli, ZHANG Dongyi, DONG Yulun, JIN Juanjuan, HE Yong (113)
- Preparation and stability of *Pinus tabulaeformis* pine needle essential oil nanoemulsion  
..... WANG Xuwei, LI Dehai (123)
- LC-MS/MS based comparative analysis and antioxidant activity prediction of  
cow placenta hydrolyzed by different proteases  
..... ZHANG Yue, YOU Liuchao, ZHU Yinkun, SHEN Yu, LV Shanghui,  
PEI Miaoyu, FU Hongqing, SHEN Liuhong (133)

Effects of *Lactobacillus casei* on the structure of jejunal mucosa and  
the level of inflammatory factors in chicks  
..... WANG Qiuzhen, DENG Ziteng, LIU Xuelian, YAN Xue,  
SONG Weiping, HAN Deping, MA Yunfei(142)

Effects of spore powder of *Ganoderma lucidum* and soybean isoflavone on growth performance,  
meat quality, and antioxidant capacity of Wenchang chicken  
..... WANG Yibing, GU Lihong, YE Jinling, FAN Qiuli, ZHANG Sheng,  
CHEN Zhilong, LIN Zhemin, JIANG Shouqun(148)

Complete genome sequencing and genetic variation analysis of an isolated  
canine parainfluenza virus strain CPIV-BJ01  
..... LIU Zining, WEI Jin, TANG Xinming, LIANG Lin, CUI Shangjin(157)

Effects of kitchen waste compost on the yield and quality of rice and soil nutrient content  
..... MAN Jiyong, LIN Yongfeng, LI Conglin, YUAN Kai,  
WU Donglei, TIAN Guangming, LI Ji, LIU Yunhui(165)

Effects of the moisture content of raw material on nitrogen transformation  
during composting in silo reactor ..... XU Pengxiang, SHEN Yujun, ZHOU Haibin,  
MENG Haibo, LI Ji, DUAN Chongdong(180)

Study on the application of ozone water in greenhouse soil disinfection  
..... ZHANG Han, ZHENG Liang, HUANG Zhuo, SONG Weitang(189)

Adaptive adjustment system of header height based on inclination sensor  
..... LONG Zhenhuan, XIANG Yang, LI Yajun, HU Zhengfang,  
LIU Anwen, DAI Xiufeng(200)

Recognition and grading of diseases and pests in orchard by GoogLeNet based on Transfer Learning  
..... WAN Junjie, QI Lijun, LU Zhongao, ZHOU Jiarui, ZHANG Hao(209)

Analysis of economic benefit of orchard mechanization:  
Taking Yeja pear orchard in Jiangsu as an example  
..... LV Yongqi, ZHANG Zongyi, LV Xiaolan(222)

Standard quantification and mechanism construction of inter-provincial cultivated land  
ecological compensation from the perspective of food security  
..... CUI Ningbo, SHENG Shiyu, FANG Yuanyiru(232)

Substitution elasticity and dependency of wool import in China based on Armington model  
..... GUO Yanjing, XIAO Haifeng(244)

Farmers' satisfaction with the agricultural film recycling policy and its influencing factors:  
An empirical evidence from 1 057 cotton farmers in Xinjiang Province  
..... ZHAI Xueling, LIU Yang, ZHANG Jie(253)

Does the domestic waste sorting promote the source reduction in agricultural products consumption?  
An empirical analysis based on 718 questionnaires in Shanghai  
..... ZHU Hua jun, TIAN Zhihong, YANG Xuejun(264)

Deductive mechanism and path design of Chinese rural urbanization  
..... YI Zhongjun, WANG Zhenzhong(275)



官方网站



官方微信



中国农业大学学报  
Zhongguo Nongye Daxue Xuebao

(月刊, 1996年创刊)

第26卷 第11期 2021年11月

主管单位 中华人民共和国教育部

主办单位 中国农业大学

主 编 李保国

副 主 编 袁文业

编辑出版 《中国农业大学学报》编辑部  
100193 北京市海淀区圆明园西路2号  
010-6273 2619

印 刷 北京科信印刷有限公司

国内发行 《中国农业大学学报》编辑部

国外发行 中国国际图书贸易集团有限公司  
(北京399信箱) 发行代号: BM7575

JOURNAL OF CHINA  
AGRICULTURAL UNIVERSITY

(Monthly, Started in 1996)

Vol. 26 No. 11 Nov. 2021

**Responsible Institution** Ministry of Education of P. R. C.

**Sponsored by** China Agricultural University

**Editor-in-chief** LI Baoguo

**Edited, Published and Distributed by** Editorial Board of  
Journal of China Agricultural University

**Address** No. 2 Yuanmingyuan Xilu, Beijing 100193, China

**Overseas Distributor** China International Book  
Trading Corporation, P. O. Box 399, Beijing, China

Distribution No. BM7575

**Telephone** +86-10-6273 2619

**E-mail** xuebao@cau.edu.cn <http://zgnydx.xb.ijournals.cn>

刊号 ISSN 1007-4333  
CN 11-3837/S

国内定价 30.00元/期  
360.00元/年

ISSN 1007-4333



9 771007 433214