

中国机械工程学会 合肥通用机械研究院有限公司主办
中国机械工程学会包装与食品工程分会会刊
中文核心期刊 · 中国科技核心期刊



国机集团
SINOMACH
ISSN 1005-1295
CN 34-1120/TS

包装与食品机械

PACKAGING AND FOOD MACHINERY

荧光共振能量转移技术在食品分析中的研究进展

关桦楠, 李明, 王丹丹, 刘晓飞

ISSN 1005-1295



9 771005 129232

06>

《包装与食品机械》公众号



“中国邮政”微信订阅



第 3 期
2023年6月 第41卷

目次

试验研究

- 基于 Fluent 的小麦气力输送数值模拟研究 姜棚仁,李永祥,徐雪萌,张永宇,夏朝阳,王 龙(1)
- 不同膜厚和灭菌时间对真空包装甜玉米贮藏品质的影响 刘鑫洋,唐正宁,王 杰(7)
- 菊芋块茎天然发酵过程中理化指标及抗氧化特性研究 刘 东,朱天地,王 慧,慕钰文(14)
- 活化柠檬酸结合 Zr(IV)改善胶原蛋白膜性能的研究 熊永铭,徐浩杰,李国英(19)
- 大流量高压射流粉碎设备的仿真与试验研究 褚 佳,潘 烨,朱俏俏,耿睿琛,梅江平(25)
- 大颗粒物料组合称重系统的冲击干扰分析与优化
..... 申 阳,程苏华,陈 琪,胡虎标,张 超,周明刚(32)
- 蝶豆花青素智能指示标签的制备及其对牛奶新鲜度的监测 岳崇泽,王远哲,王桂英(37)

技术综述

- 荧光共振能量转移技术在食品分析中的研究进展 关桦楠,李 明,王丹丹,刘晓飞(45)
- CO₂ 指示型包装在食品质量监测中的研究进展 李 莹,李春伟(52)

设计计算

- 仓储物流搬运机器人控制系统设计与应用 郑金松(59)
- 基于机器视觉的快递面单识别 郭广振,张丰收(65)
- 柔性螺旋输送性能测试试验台设计 林吉靓(70)
- 基于可拓模糊理论的苹果采摘机适用性能评价 杜安楠,李 栋,陈 军,王新宇(75)
- 基于非线性模糊逻辑 PID 的圆盘制曲机控温控湿系统的研究
..... 何 辉,吴卫良,钟任强,宋 健,张智宏,胡 锋,高献礼(82)
- 基于深度学习的青椒识别研究 汪谦谦,孙艳霞,徐星星,金小俊,于佳琳,陈 勇(89)
- 弧面分度凸轮的建模与参数化研究 宋子祥,肖永茂(94)
- 粉料充填包装的自动取袋、开袋机构设计与运动仿真分析
..... 邱光军,黄兴元,柳和生,李华延,付海明(101)
- 上甑机器人运动分析和轨迹规划 刘文斌,张贵宇,庾先国,彭英杰,罗 琪,朱雪梅(107)

CONTENTS

Numerical simulation of pneumatic conveying of wheat based on Fluent	JIANG Pengren, LI Yongxiang, XU Xuemeng, ZHANG Yongyu, XIA Zhaoyang, WANG Long (1)
Comparison of storage quality of vacuum packed sweet corn with different material thickness and sterilization time	LIU Xinyang, TANG Zhengning, WANG Jie (7)
Study on the changes of physical and chemical indexes and antioxidant properties of Jerusalem artichoke tuber during natural fermentation	LIU Dong, ZHU Tiandi, WANG Hui, MU Yuwen (14)
Research on properties of collagen membrane improved by activated citric acid combined with Zr (IV)	XIONG Yongming, XU Haojie, LI Guoying (19)
Simulation and experimental study of large flow high pressure jet mill	CHU Jia, PAN Ye, ZHU Qiaoqiao, GENG Ruichen, MEI Jiangping (25)
Shock interference analysis and optimization of combined weighing system for large particle materials	SHEN Yang, CHENG Suhua, CHEN Qi, HU Hubiao, ZHANG Chao, ZHOU Minggang (32)
Preparation of smart indicator labels with clitoria ternatea anthocyanin for monitoring milk freshness	YUE Chongze, WANG Yuanzhe, WANG Guiying (37)
Research progress of fluorescence resonance energy transfer technology in food analysis	GUAN Huanan, LI Ming, WANG Dandan, LIU Xiaofei (45)
Advances in research of CO ₂ indicator packaging in food quality monitoring	LI Ying, LI Chunwei (52)
Design and application of control system for warehouse logistics handling robot	ZHENG Jinsong (59)
Recognition of waybill based on machine vision	GUO Guangzhen, ZHANG Fengshou (65)
Design of flexible screw performance test bench for conveying granular food	LIN Jiliang (70)
Applicability evaluation of apple picker based on extension and fuzzy theory	DU Annan, LI Dong, CHEN Jun, WANG Xinyu (75)
Study on temperature and humidity control system of disc koji making machine using intelligent PID algorithm	HE Hui, WU Weiliang, ZHONG Renqiang, SONG Jian, ZHANG Zhihong, HU Feng, GAO Xianli (82)
Research on green pepper recognition based on deep learning	WANG Qianqian, SUN Yanxia, XU Xingxing, JIN Xiaojun, YU Jialin, CHEN Yong (89)
Modeling and parameterization of arc degree cam	SONG Zixiang, XIAO Yongmao (94)
Design and motion simulation analysis of automatic bag picking and bag opening mechanism for powder filling and packaging	QIU Guangjun, HUANG Xingyuan, LIU Hesheng, LI Huayan, FU Haiming (101)
Motion analysis and trajectory planning of retort loading robot	LIU Wenbin, ZHANG Guiyu, TUO Xianguo, PENG Yingjie, LUO Qi, ZHU Xuemei (107)

减塑 · 限塑

为了让生活更美好 · 请减少使用塑料制品

从今天开始
为地球贡献一份力量



我的心思不用你猜

拒绝过度包装

· 减塑限塑等你加入

· 践行「公民十条」