

全国中文核心期刊

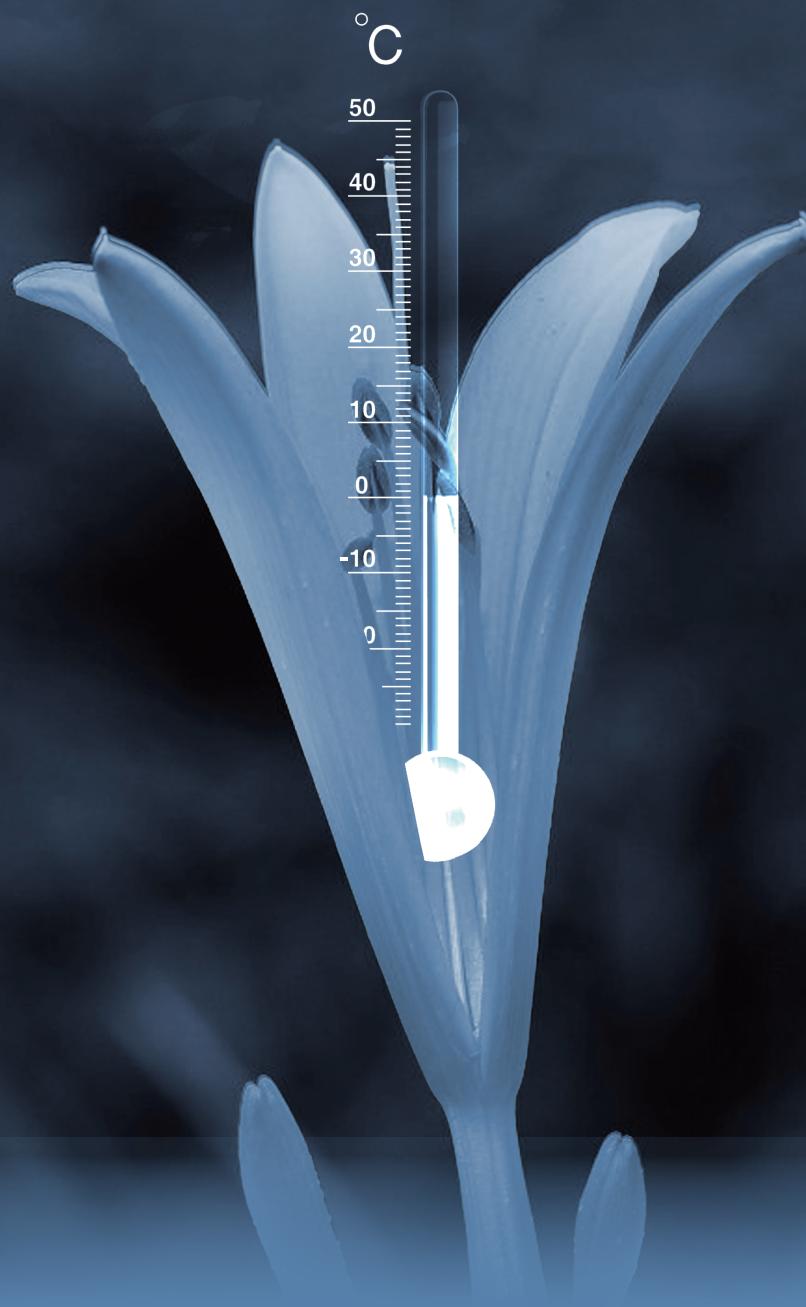
2021年8月 第42卷 第15期

主管单位：中国兵器装备集团有限公司

主办单位：中国兵器工业第五九研究所

包装工程

Packaging Engineering



封面文章：精准温控保鲜箱对黄花菜冷藏品质的影响

作 者：薛友林 张鹏 李江阔*

包装工程

BAOZHUANG GONGCHENG

第42卷 第15期 2021年8月10日

目次

果蔬采后保鲜技术(专题主编 李江阔 研究员)

- 精准温控保鲜箱对黄花菜冷藏品质的影响 薛友林, 刘英杰, 张鹏, 贾晓昱, 李江阔 1
不同温度下1-MCP处理对枸杞鲜果贮藏品质的影响 李江阔, 何宇光, 刘玲, 贾晓昱, 李春媛, 张鹏 10
精准温控技术对蟠桃冷藏和常温货架品质的影响 张鹏, 李欣悦, 薛友林, 贾晓昱, 李江阔 19
采后果蔬呼吸代谢途径及其调控研究进展 高红豆, 胡文忠, 管玉格, 姬亚茹, 冯可, 张艳慧, 于皎雪 30
不同保鲜膜对“阳光玫瑰”葡萄贮藏品质的影响 魏宝东, 谷佰宇, 张鹏, 贾晓昱, 李江阔 39
低温对西番莲采后贮藏品质的影响 巴良杰, 张丽敏, 蔡国俊, 彭熙, 李江阔, 张鹏, 王瑞 49
PP/PBAT薄膜阻隔性对沙葱采后品质及菌相结构的影响 卜红宇, 胡健, 孙滔, 包红艳, 董同力嘎 56
采前喷施复合保鲜液对蓝莓贮藏品质的影响 瞿光凡, 杨玲辉, 巴良杰, 李江阔, 王玉航, 王瑞, 曹森 65

食品流通与包装

- 高阻隔HDPE包装对NFC橙汁品质和货架期的影响 张晓雨, 魏星, 赵靓, 王永涛, 吴晓蒙, 廖小军 72
差分拉曼光谱法结合聚类分析检验食品塑料包装盒 姜红, 田陆川, 王艺霖, 段斌, 刘峰 85
精油微胶囊在食品保鲜中的应用研究进展 宁静娴, 许超群, 岳淑丽, 李拥军 94
壳聚糖基油墨在食品领域应用的研究进展 胡露丹, 王洪霞, 张宇昊, 马良, 彭林, 杜杰 103

新材料技术

- 天然高分子在微胶囊壁材中的应用 卓祖优, 宋生南, 白小杰, 陈燕丹 112
三维石墨烯的制备及其在超级电容器中的应用 曹玥, 张改梅, 李现红, 宋晓利, 鲁建东, 刘辰雨, 胡晶晶 122
导电聚合物PEDOT:PSS纸基印刷成膜和变色器件的制备 孙亚萌, 刘国栋, 罗宁宁, 刘羽, 王子健 133
可压缩纸张中油墨渗透压力分布的级数解 陆利坤, 刘福平, 谢名优 142
小分子增塑剂对淀粉热塑化改性及性能影响的研究进展 寇志敏 148

缓冲与隔振

- 双材料自由阻尼层结构拓扑优化设计方法 倪维宇, 张横, 姚胜卫 156

充气垫对玻璃杯缓冲保护的实验与仿真分析	张健, 潘政宇, 李琛	165
斜支承运动纸带的横向振动特性	邵明月, 庆佳娟, 武吉梅, 王静	171
建立 EPE 和蜂窝纸板串联组合本构模型的方法	崔爽, 徐绍虎	177

工艺与装备

存在基础振动的物料搬运机时间最优控制	梅瑞麟, 郭宇飞, 王志刚, 郝志强	182
基于离散元法的果粒灌装输送过程仿真	叶方平, 刘冠军, 汤亮, 姜晓文, 李宸宇	189
盘香取放及焚香一体化的包装结构设计	邓巧云, 杨熳, 聂济世, 郭丁萌, 徐丽, 李大纲	197
基于知识图谱的包装领域智能问答系统的设计	吴岳忠, 沈雪豪, 肖发龙, 邓芝一, 李长云	203
基于优先保持策略遗传算法的三维装箱问题	陈元文	211
竹质包装材料成型设备阻隔时间控制系统设计	谭华, 刘晓利, 薄立康	219
基于 PLC 技术的塑料膨胀管包装设备设计	刘小娟, 邓兴龙, 黄信兵	226
基于视觉的工业机器人码垛系统设计与分析	权宁, 徐志鹏	233
多自由度包装机器人人机交互控制方法	张玉兰, 杜羽	239
快递暴力分拣行为视觉识别系统	吴蓬勃, 张金燕, 王帆, 王拓	245
食品包装高精度计量控制方法	李丽, 李虹飞	253
可勾调酒精度的白酒包装结构及灌装方法	刘从军, 杨多兵, 刘坤宏	258
贴标机多轴非线性同步控制系统设计	常卫花, 樊慧贞	264

图文信息技术

BCC-BP 算法在 RGB 值到 LAB 值色彩空间转换中的应用	王海军, 金涛, 门克内木乐	269
基于卷积神经网络的印刷套准识别方法	简川霞, 陈鑫, 林浩, 张韬, 王华明	275
基于深度学习的包装组件检测系统研究	陈永刚, 陈丽珊, 邹易, 孙余顺	284
基于美学质量评价的条件生成对抗网络线稿图像彩色化方法	王晓红, 刘博伟, 谌鹏	292

广告索引

封二 普拉斯包装材料有限公司
封三 中国兵器工业第五九研究所包装工程技术研究中心
插页
A1 国防科技工业自然环境试验研究中心
A2 装备环境工程杂志

期刊基本参数：CN 50-1094/TB*1980*s*A4*298*zh*P* ¥ 45.00*5000*38*2021-08

PACKAGING ENGINEERING

(Initial Issue 1980) (Semimonthly) Vol.42 No.15 (Total No.453) Aug. 10, 2021

Contents

Special Topics on Postharvest Preservation Technology of Fruits and Vegetables

- Effect of Precision Temperature Control Box on Quality of Daylily during Cold Storage
XUE You-lin, LIU Ying-jie, ZHANG Peng, et al. 1
- Effects of 1-MCP Treatment at Different Temperatures on Storage Quality of *Lycium Barbarum* Fruits
LI Jiang-kuo, HE Yu-guang, LIU Ling, et al. 10
- Effect of Precise Temperature Control Technology on Cold Storage and Shelf Quality of Flat Peach at Room Temperature
ZHANG Peng, LI Xin-yue, XUE You-lin, et al. 19
- Research Achievements in Respiration Metabolism Way and Control Methods of Post-Harvest Fruits and Vegetables
GAO Hong-dou, HU Wen-zhong, GUAN Yu-ge, et al. 30
- Effect of Different Fresh-Keeping Film on the Storage Quality of "Shine-Muscat" Grape
WEI Bao-dong, GU Bai-yu, ZHANG Peng, et al. 39
- Effects of Low-Temperature on Storage Quality of Passion Fruit
BA Liang-jie, ZHANG Li-min, CAI Guo-jun, et al. 49
- Barrier Properties of PBAT/PP Blend Films and the Effects on Postharvest Quality and Microbiological Population of *Allium Mongolicum* Regel
BU Hong-yu, HU Jian, SUN Tao, et al. 56
- Effect of Preharvest Spraying of Composite Preservation Liquid on Postharvest Blueberry Storage Quality
QU Guang-fan, YANG Ling-hui, BA Liang-jie, et al. 65

Food Distribution and Packaging

- Effect of High Barrier HDPE Packaging on the Quality and Shelf Life of NFC Orange Juice
ZHANG Xiao-yu, WEI Xing, ZHAO Liang, et al. 72
- Differential Raman Spectroscopy Combined with Cluster Analysis for Inspection of Food Plastic Packaging Box
JIANG Hong, TIAN Lu-chuan, WANG Yi-lin, et al. 85
- Research Progress in the Application of Essential Oil Microcapsules in Food Preservation
NING Jing-xian, XU Chao-qun, YUE Shu-li, et al. 94
- Application of Chitosan Based Ink in Food Field
HU Lu-dan, WANG Hong-xia, ZHANG Yu-hao, et al. 103

Advanced Materials Technologies

- Applications of Natural Polymer as Microcapsule Wall Material
ZHUO Zu-you, SONG Sheng-nan, BAI Xiao-jie, et al. 112
- Preparation of Three-Dimensional Graphene and Its Application in Supercapacitors
CAO Yue, ZHANG Gai-mei, LI Xian-hong, et al. 122
- Conductive Polymer PEDOT: PSS Paper-Based Printing Film Formation and Preparation of Electrochromic Devices
SUN Ya-meng, LIU Guo-dong, LUO Ning-ning, et al. 133
- Series Solution of Ink Penetration Pressure Distribution in Compressible Paper
LU Li-kun, LIU Fu-ping, XIE Ming-you 142
- Research Progress of Small Molecule Plasticizer on Thermoplasticizing Modification and Properties of Starch
KOU Zhi-min 148

Cushioning and Vibration Isolation

- Topology Optimization Design of Bi-Material Free-Layer Damping Treatments
NI Wei-yu, ZHANG Heng, YAO Sheng-wei 156
- Experiment and Simulation Analysis of Inflatable Cushion for Buffer Protection of Glass
ZHANG Jian, PAN Zheng-yu, LI Chen 165
- Transverse Vibration Characteristics of Moving Web on Oblique Supports
SHAO Ming-yue, QING Jia-juan, WU Ji-mei, et al. 171
- Method for Establishing the Constitutive Model of EPE and Honeycomb Paperboard Series Connection
CUI Shuang, XU Shao-hu 177
-

Process and Equipment

- Time-Optimal Control of Material Transfer Manipulators with Base Oscillation
MEI Rui-lin, GUO Yu-fei, WANG Zhi-gang, et al. 182
- Simulation of Canned Fruit Transportation Process Based on Discrete Element Method
YE Fang-ping, LIU Guan-jun, TANG Liang, et al. 189
- Packaging Structural Design of Integration of Taking/Placing and Burning for Coiled Incenses
DENG Qiao-yun, YANG Xuan, NIE Ji-shi, et al. 197
- Design of Intelligent Question-Answering System for Packaging Field Based on Knowledge Graph
WU Yue-zhong, SHEN Xue-hao, XIAO Fa-long, et al. 203
- Three-Dimensional Container Loading Problem Based on Genetic Algorithm with Priority Retention Strategy
CHEN Yuan-wen 211
- Design of Blocking Time Control System for Bamboo Packaging Material Forming Equipment
TAN Hua, LIU Xiao-li, BO Li-kang 219
- Design of Plastic Expansion Tube Packaging Equipment Based on PLC Technology
LIU Xiao-juan, DENG Xing-long, HUANG Xin-bing 226
- Design and Analysis of Industrial Robot Palletizing System Based on Vision
QUAN Ning, XU Zhi-peng 233
- Human-Computer Interaction Control Method for Multi-Degree of Freedom Packaging Robot
ZHANG Yu-lan, DU Yu 239
- Visual Recognition System of Violent Sorting Behavior in Express Delivery
WU Peng-bo, ZHANG Jin-yan, WANG Fan, et al. 245
- High Precision Measurement Control Method of Food Packaging
LI Li, LI Hong-fei 253
- Packaging Structure and Filling Method of Liquor Allowing Adjusting Alcohol Concentration
LIU Cong-jun, YANG Duo-bing, LIU Kun-hong 258
- Design of Multi-Axis Nonlinear Synchronous Control System for Labeling Machine
CHANG Wei-hua, FAN Hui-zhen 264
-

Graphic Information Technology

- Application of BCC-BP Algorithm in Color Space Conversion from RGB Value to LAB Value
WANG Hai-jun, JIN Tao, MENKE Nei-mu-le 269
- Printing Registration Recognition Method Based on Convolutional Neural Network
JIAN Chuan-xia, CHEN Xin, LIN Hao, et al. 275
- Packaging Component Detection System Based on Deep Learning
CHEN Yong-gang, CHEN Li-shan, ZOU Yi, et al. 284
- Conditional Image Colorization with Image Aesthetics GANs Based on Aesthetic Quality Evaluation
WANG Xiao-hong, LIU Bo-wei, CHEN Peng 292