



# 物流技术

*Logistics Technology*

ISSN 1005-152X

CN 42-1307/TB

月刊



车架大梁立体存放库

货位数: 168

存储单元尺寸: 8000×1000×1000 mm (长×宽×高)

货位承载能力: 3吨



JUMPCAN  
济川药业

NHU  
新和成



SINOTRANS  
中国外运

ISSN 1005-152X



营销中心地址: 南京市建邺区奥体大街 118 号紫金西城中心 1 栋 9 楼

电话: 400-997-9161 传真: 025-86106530

邮箱: market@nova-china.com 网址: www.nova-china.com

## Contents



## 《物流技术》杂志 2021年第11期

### 著作权许可声明

本刊已许可中国学术期刊（光盘版）电子杂志社、万方数据股份有限公司、重庆维普资讯有限公司、龙源创新数字传媒（北京）股份有限公司等在中国知网、万方数据库、中文科技期刊数据库、龙源期刊网等数据库产品中以数字化方式复制、汇编、发行、信息网络传播本刊全文。该社著作权使用费与本刊稿酬一并支付。作者向本刊提交文章发表的行为即视为同意我社上述声明。

《物流技术》杂志社



万方数据

### 研究与探讨 Research & Discussion

- 1 基于集拼集运模式的铁路前置仓服务体系设计 于梦琦, 张嘉慧, 王思雨, 等  
Design of Railway Preposition Warehouse Service System Based on LCL Consolidated Transportation.....YU Mengqi, ZHANG Jiahui, WANG Siyu, et al.
- 9 数字化技术环境下场景物流生态探究 郭娜, 万雨萌  
Research on Scenario Logistics Ecology in Digital Technology Environment.....GUO Na, WAN Yumeng
- 15 后疫情时代铁路货运向现代物流转型的发展对策 李艳伟, 龙佳桂, 陈容  
Countermeasures to Transform Railway Freight Transport to Modern Logistics in Post-epidemic Era.....LI Yanwei, LONG Jiagui, CHEN Rong
- 20 中国星级冷链物流企业空间格局演化 沈辰, 付江月  
Evolution of Spatial Pattern of Star Cold Chain Logistics Enterprises in China.....SHEN Chen, FU Jiangyue
- 26 “新基建”背景下安徽省农村电商物流发展分析 吴琼, 刘通, 王星月  
Analysis on Development of Rural E-commerce Logistics in Anhui Province under Background of "New Infrastructure Construction".....WU Qiong, LIU Tong, WANG Xingyue
- 30 新冠疫情下进口冷链食品的风险与对策 慕晓博, 魏东, 罗志军, 等  
Countermeasures for Covid-19 Hazard Associated with Imported Cold Chain Food.....MU Xiaobo, WEI Dong, LUO Zhijun, et al.

### 技术与方法 Technologies & Methods

- 34 绿色创新效率与物流业协同发展——来自珠三角创新型城市的实证研究 刘宏伟, 王叶青, 石红娟  
Green Innovation Efficiency and Coordinated Logistics Development: An Empirical Study on Innovative City Construction in Pearl River Delta.....LIU Hongwei, WANG Yeqing, SHI Hongjuan
- 40 模糊集理论在造船企业库存控制优化中的应用 向子权, 杨家其, 向祖权, 等  
Application of Fuzzy Set Theory in Optimization of Inventory Control of Shipbuilding Enterprises.....XIANG Ziquan, YANG Jiaqi, XIANG Zuquan, et al.

# CONTENTS

- 44 基于灰色GM(1,1)的南京都市圈物流需求预测 江楠  
Forecasting of Logistics Demand in Nanjing Metropolitan Ring Based on Grey GM (1,1)  
.....JIANG Nan
- 48 基于熵权法与灰色关联分析法的冷链物流闭环管理风险评价 闫莹  
Risk Evaluation in Closed-loop Management of Cold Chain Logistics Based on Entropy Weighting  
and Grey Relational Analysis.....YAN Ying
- 54 “一带一路”倡议背景下基于因子分析法的物流企业营商环境测评实证研究 陈碎雷  
Empirical Study on Evaluation of Business Environment for Logistics Enterprises Based on Factor  
Analysis in Context of Belt and Road Initiative.....CHEN Suilei
- 59 快速路合流区交通排放特征研究 俞汪洋, 付晶燕, 汪涛, 等  
Research on Vehicle Emissions Characteristics in Expressway Confluence Area  
.....YU Wangyang, FU Jingyan, WANG Tao, et al.
- 66 基于专利计量的船舶动力系统技术趋势分析 周航, 盛永祥, 吴洁  
Technology Trends Analysis of Ship Power System Based on Patent Metering  
.....ZHOU Hang, SHENG Yongxiang, WU Jie
- 71 突发公共卫生事件下的应急物流与应急物资管控及其相关关系 徐许晨, 郭跃, 邓豪瀛, 等  
Relationship between Emergency Logistics and Emergency Supplies Management under Public  
Health Outbreak.....XU Xuchen, GUO Yue, DENG Haoying, et al.
- 76 资源节约型物流成本管控系统构建——以D公司为例 李散绵  
Construction of Resource-saving Oriented Logistics Cost Management System: Taking Company D  
as Example.....LI Sanmian



## 供应链管理 Supply Chain Management

- 83 基于主体企业的供应链创新模式比较与协调 宋志兰, 王融  
Comparison and Coordination of Innovation Modes of Supply Chains Organized around Manufacturer  
.....SONG Zhilan, WANG Rong
- 94 分支供应链同步化决策模型及仿真——基于系统动力学视角 汪建, 吴小雨, 王裴裴, 等  
Synchronous Decision Model and Simulation of Branch Supply Chain: A System Dynamics Perspective  
.....WANG Jian, WU Xiaoyu, Wang Peipei, et al.



## 网络与信息化 Internet & Informatization

- 102 重大公共卫生事件下基于区块链技术的冷链物流模式 徐秀珍, 吴国林, 陈思祁  
Cold Chain Logistics Model Based on Blockchain Technology in Face of Major Public Health Events  
.....XU Xiuzhen, WU Guolin, CHEN Siqi
- 107 基于IOT和RFID收发分离技术的仓储管理系统 陈刚, 王发珍  
Warehouse Management System Based on IOT and RFID Transceiver Separation Technology  
.....CHEN Gang, WANG Fazhen



英 文 翻 译 方 威  
蔡晓冉  
排 版 章俊松

# 目次 CONTENTS



## 本刊启事

本刊于2019年1月1日正式启用在线投稿系统，欢迎作者登陆网站<http://www.logisticstech.com>，在“作者中心”注册在线投稿。

《物流技术》杂志社

## 企业物流 Enterprise Logistics

- 112 基于综合评价模式的卷烟配送激励创新 毕磊，柯涛，李一平，等  
Incentive Innovation for Cigarette Distribution Based on Comprehensive Evaluation Model  
.....BI Lei, KE Tao, LI Yiping, et al.
- 118 汽车入厂物流看板响应环节均衡化自动化及可追溯性改进 向先文，隋艳辉，谢孟汐，等  
Equalization, Automation and Traceability Improvement of Kanban Response Link in Automobile Inbound Logistics.....XIANG Xianwen, SUI Yanhui, XIE Mengxi, et al.
- 126 基于人脸识别技术的卷烟智能化终端配送研究 晏晶，朱武刚，陈瑞华，等  
Research on Cigarette Intelligent Terminal Distribution Based on Face Recognition Technology  
.....YAN Jing, ZHU Wugang, CHEN Ruihua, et al.

## 设施与设备 Facilities & Equipment

- 130 考虑人因工程的折叠储物柜设计 刘渐栋，邹雄博，汪书帆，等  
Design of Folding Locker Considering Ergonomics  
.....LIU Jiandong, ZOU Xiongbo, WANG Shufan, et al.
- 134 四车联动多用途重载全向转运平台研究 李所先，周源洁  
Research on Multi-function Heavy-duty Omni-directional Transfer Platform with Four-vehicle Linkage  
.....LI Suoxian, ZHOU Yuanjie

## 军事物流 Military Logistics

- 137 空军航材配送中心选址优化 管同傲，侯胜利  
Location Optimization of Air Force Material Distribution Center.....GUAN Tongao, HOU Shengli
- 142 后方仓库装卸机械调度优化 夏禹，杨会军  
Schedule Optimization of Rear Warehouse Loading and Unloading Machines  
.....XIA Yu, YANG Huijun
- 147 装备器材消耗预测研究综述 李东京，秦智勇，王兵，等  
Review of Literature on Forecasting of Equipment Supplies Consumption  
.....LI Dongjing, QIN Zhiyong, WANG Bing, et al.

## 物流教育 Logistics Education

- 153 基于社会主义核心价值观的高职“物流营销”课程思政设计与实践 胡延华，裴茜  
Design and Practice of Course-embedded Ideological and Political Education for Logistics Marketing Course Based on Socialist Core Values.....HU Yanhua, PEI Qian