

# 南京师大学报

(自然科学版)

第 45 卷 第 2 期(总第 170 期)

2022 年 6 月

## 目 次

### · 物理学 ·

磁性纳米粒子的磁声谐波成像研究 ..... 黄 洋,曹睿杰,郭各朴,马青玉,郭余庆,王 军(1)

生物 3D 打印机气动挤料系统协同控制研究 ..... 袁方敏,于尚红(9)

### · 地理学 ·

城市形态空间格局与城市热环境关联性研究——以南京市为例 ..... 吴子豪,童滋雨(16)

基于大型线性体育活动的街道活力时空分布特征分析——以福州国际马拉松赛道为例

..... 王金秋,杨 钊,李锦丽,朱里莹(26)

多维邻近性对陕西泾阳茯茶产业集群创新的影响研究 ..... 张 华,孙 鹏(34)

### · 生物学 ·

基于模式物种的快速同源搜索软件基准测试 ..... 王殷伟,武晶菁,张宸宁,华宜家,李 鹏,严 洁(44)

日本对虾 miR-34 靶基因预测及其生物信息学分析

..... 李 粉,刘新鹤,高铭悦,徐 晨,徐俊颖,史莹华,崔亚垒(52)

柯尔克孜族成人人体部体质表型特征 ..... 张威鹏,李 欣,温有锋,李 强,张文虔,叶丽平(63)

## · 生态学 ·

媒介取食偏好和宿主群落组成对多宿主-媒介系统疾病风险的影响

..... 陈立范,陈师亮,王宏杰,宋如意(72)

## · 计算机科学与技术 ·

危险品车辆路径规划的双目标模型与算法研究 ..... 沈 良,吴 婷,覃朝晖,冯 雨,邵 虎,邵 枫(81)

基于多层交通网络度-度距离模型的新冠肺炎传播研究 ..... 田 锋,魏代俊(91)

基于微控制单元的彩色图像加密无线通信方案 ..... 贾晓霞,邢进生(98)

我国大学生成绩预测及专业分流引导实践探究——基于矩阵填充和回归模型的实证分析

..... 韩 研,陈金如,柳宇菲(106)

高校图书馆读者教育培训现状的统计与预测 ..... 邓 盛,侯奇焜,陈敏哲,杨宇舟,赵夏苓(112)

面向印花图案检索的特征融合方法研究 ..... 殷业瑜,高家全,李 莹(118)

多边缘服务器协作环境下基于时延感知的服务选择算法

..... 谢 娜,谭文安,孙 勇,赵 璐,黄 黎(126)

神经网络二次集成预测算法研究 ..... 顾海艳,曹 林,朱 涛,袁 明(136)

## · 环境科学与工程 ·

不同聚集厚度藻类分解过程对温室气体释放的影响

..... 严 岩,吴懿婷,周川乔,马 天,许晓光,邓 杨(142)

---

[期刊基本参数]CN 32-1239/N \* 1955 \* q \* A4 \* 148 \* zh \* P \* ¥8.00 \* 1150 \* 18 \* 2022-06

---

主编:陈国祥; 执行主编:莫祥银; 执行编辑:丁 蓉

公开发行

**JOURNAL OF NANJING NORMAL UNIVERSITY**  
**( Natural Science Edition )**

**Vol. 45 No. 2 ( Sum. 170 )**

**June, 2022**

---

**CONTENTS**

Magnetoacoustic Harmonic Imaging Based on Magnetic Nanoparticles  
..... Huang Yang, Cao Ruijie, Guo Gepu, Ma Qingyu, Guo Yuqing, Wang Jun ( 1 )

Research on Collaborative Control of Pneumatic Extrusion System of Biological 3D Printer ..... Yuan Fangmin, Yu Shanghong ( 9 )

Study on the Correlation Between the Spatial Patterns of Urban Form and the Urban Thermal Environment; a Case Study of Nanjing  
..... Wu Zihao, Tong Ziyu ( 16 )

Analysis on the Spatio-Temporal Distribution Characteristics of Street Vitality Based on Large-Scale Linear Sports Activities;  
a Case Study of Fuzhou International Marathon Track ..... Wang Jinjiu, Yang Yi, Li Jinli, Zhu Liying ( 26 )

Research on the Impact of Multidimension Proximity on the Innovation of Jingyang Fu Tea Industrial Cluster in Shaanxi Province  
..... Zhang Hua, Sun Peng ( 34 )

Benchmarking Fast Homology Search Softwares Based on Model Organisms  
..... Wang Yinwei, Wu Jingjing, Zhang Chenning, Hua Yijia, Li Peng, Yan Jie ( 44 )

*Marsupenaeus japonicus* shrimp miR-34 Target Gene Prediction and Bioinformatics Analysis  
..... Li Fen, Liu Xinxin, Gao Mingyue, Xu Chen, Xu Junying, Shi Yinghua, Cui Yalei ( 52 )

Physical Characteristics of Kirgiz Adults ..... Zhang Xianpeng, Li Xin, Wen Youfeng, Li Qiang, Zhang Wenqian, Ye Liping ( 63 )

The Effect of Vector Feeding Preference and Host Community Composition on the Risk of Vector-Borne Disease  
..... Chen Lifan, Chen Shiliang, Wang Hongjie, Song Ruyi ( 72 )

Bi-objective Path Finding Problem for Hazardous Materials Transportation Vehicles  
..... Shen Liang, Wu Ting, Qin Zhaohui, Feng Yu, Shao Hu, Shao Feng ( 81 )

Degree-Degree Distance Based on the Perspective of Multi-Layer Traffic Network COVID-19 Transmission Research  
..... Tian Feng, Wei Daijun ( 91 )

A MCU-Based Color Image Encryption and Communication Scheme for Wireless Channel ..... Jia Xiaoxia, Xing Jinsheng ( 98 )

Exploration on the Practice of College Students' Achievement Prediction and Professional Diversion Guidance in China: Empirical  
Analysis Based on Matrix Filling and Regression Model ..... Han Yan, Chen Jinru, Liu Yufei ( 106 )

Statistics and Prediction of Reader Education and Training in University Library  
..... Deng Sheng, Hou Qikun, Chen Minzhe, Yang Yuzhou, Zhao Xialin ( 112 )

Research on Image Feature Fusion Method for Pattern Image Retrieval ..... Yin Yeyu, Gao Jiaquan, Li Ying ( 118 )

Service Selection Algorithm Based on Latency-Aware in a Multiple Edge Server Cooperation Environment  
..... Xie Na, Tan Wenan, Sun Yong, Zhao Lu, Huang Li ( 126 )

Research on Quadratic Integration Prediction Algorithm of Neural Network ..... Gu Haiyan, Cao Lin, Zhu Tao, Yuan Ming ( 136 )

Effects of Algal Decomposition Processes on Greenhouse Gas Emission at Different Aggregation Thicknesses  
..... Yan Yan, Wu Yiting, Zhou Chuanqiao, Ma Tian, Xu Xiaoguang, Deng Yang ( 142 )

---

**Editor-in-Chief:** CHEN Guoxiang, **Executive Editor-in-Chief:** MO Xiangyin, **Executive Editor:** Ding Rong