

南京师大学报

(自然科学版)

第 43 卷 第 3 期(总第 163 期)

2020 年 9 月

目 次

· 数学 ·

- 一类具有离散时滞和分布时滞的四元数神经网络同步性研究 杨 仪,陈小龙,周杰琳(1)
- 关于微分算子 Δ^2+a 的一个注记 戴绍虞,潘一飞(7)
- 具有 Radon 测度数据的单向流问题 周光发(12)
- 基于聚类分析和时间差分的减税降费空间研究 隋京岐,张 雷,王浩源,王家琪(16)
- Hopf Cotruss 的结构 严佳玲,郑慧慧,张良云(23)
- KdV 型粘性分数阶方程的数值解 林府标,马丽荣(28)

· 物理学 ·

- 电流调制激光自混合光栅干涉位移测量研究 蔡文魁,沈锺杰,赵慧敏,郭冬梅(34)
- 加载工字型槽的三维频率选择表面设计 杨 霞,王 橙,于正永,陆华丽,唐万春(40)

· 化学 ·

- 改性黑磷驱油剂的制备及其性能研究 付 磊,王 磊,何 磊,张鲁霞,沈 健(48)
- 聚苯乙烯纳米零价铁复合材料的制备及催化性能研究 陈嘉豪,王旭增,吴 伟,杨维本(54)
- 基于金纳米颗粒聚集的高灵敏 Ag^+ 电致化学发光生物传感器 苗向阳,王孝英,朱钦舒(63)

· 地理学 ·

基于多要素的城市汇水区分级划分研究 朱治州,张书亮,王一梅,杨祺琪,戴 强(71)

全球视野下区域协调发展的经济地理学研究——进展与展望 章屹祯,汪 涛,曹卫东,司月芳(78)

江苏省县域城镇建设用地效率时空特征及驱动因子识别 郭向阳,穆学青,丁正山(84)

江苏省新型城镇化与产业结构协调发展分析 张潇晗,张小林,李红波(91)

1990 年以来苏州城市化发展过程及其驱动机制研究 吴 菊,乔伟峰,王亚华(99)

· 生物学 ·

TMEM16A 的表达下调对骨骼肌细胞分化的影响

..... 袁 文,范春娥,陈宇琛,许艳华,张茜茜,孙志远,陈华群(106)

靶向树突状细胞的结肠癌肿瘤疫苗的制备 宋政文,赵智辉(112)

线粒体外膜转位酶基因 *tom70* 缺失对裂殖酵母细胞动力学的影响

..... 袁荣美,丁 祥,谭秀梅,侯怡铃(120)

黄精组织培养快繁技术体系建立的研究 田 怀,侯 娜(129)

· 生态学 ·

底层放空对黄村水库 N、P、Mn、Fe 含量的影响 王远飞,周存通,林 洁,樊晓丽,林植华(136)

· 计算机科学与技术 ·

2000—2019 年我国信息素养教育研究热点与前沿可视化分析 冯 青,李 莉(141)

JOURNAL OF NANJING NORMAL UNIVERSITY

(Natural Science Edition)

Vol. 43 No. 3(Sum. 163)

Sept, 2020

CONTENTS

Global Synchronization of Quaternion-valued Neural Networks with Discrete and Distributed Delays	Yang Yi, Chen Xiaolong, Zhou Jieli (1)
A Note on the Differential Operator $\Delta^2 + a$	Dai Shaoyu, Pan Yifei (7)
A Unidirectional Flow Problem with Radon Measure Data	Zhou Guangfa (12)
A Study on the Room for Tax Cut and Fee Reduction Based on Clustering Analysis and Time Difference	Sui Jingqi, Zhang Lei, Wang Haoyuan, Wang Jiaqi (16)
The Structure of Hopf Cotruss	Yan Jialing, Zheng Huihui, Zhang Liangyun (23)
Numerical Methods for KdV Type Fractional Order Equation with a Nonlocal Viscous Term	Lin Fubiao, Ma Lirong (28)
Research on Displacement Measurement of Current Modulated Laser Self-mixing Grating Interference	Cai Wenkui, Shen Zhongjie, Zhao Huimin, Guo Dongmei (34)
Study on Three-Dimensional Frequency Selective Surface with I-Shaped Slots	Yang Xia, Wang Cheng, Yu Zhengyong, Lu Huali, Tang Wanchun (40)
Preparation and Its Properties Research of Modified Black Phosphorus Oil Displacement Agent	Fu Lei, Wang Lei, He Lei, Zhang Luxia, Shen Jian (48)
Preparation and Research on Catalytic Properties of Polystyrene/Nano Zero-valent Iron Composites	Chen Jiahao, Wang Xuzeng, Wu Wei, Yang Weiben (54)
Highly Sensitive Ag^+ ECL Biosensor Based on Gold Nanoparticles Aggregation	Miao Xiangyang, Wang Xiaoying, Zhu Qinshu (63)
Research on Hierarchical Partition of Urban Catchment Area Based on Multiple Factors	Zhu Zhizhou, Zhang Shuliang, Wang Yimei, Yang Qiqi, Dai Qiang (71)
Economic Geography Research on Regional Coordinated Development from Global Perspective—Progress and Prospect	Zhang Yizhen, Wang Tao, Cao Weidong, Si Yuefang (78)
Spatial-Temporal Characteristics and Driving Factor Identification of Urban Construction Land Efficiency in Counties of Jiangsu Province	Guo Xiangyang, Mu Xueqing, Ding Zhengshan (84)
Analysis on the Coordinated Development of New Urbanization and Industrial Structure in Jiangsu Province	Zhang Xiaohan, Zhang Xiaolin, Li Hongbo (91)
Study on the Process of Urbanization Development and Its Driving Mechanism in Suzhou Since 1990	Wu Ju, Qiao Weifeng, Wang Yahua (99)
The Effect of Down-Regulation of TMEM16A Expression on Skeletal Muscle Cell Differentiation	Yuan Wen, Fan Chun'e, Chen Yuchen, Xu Yanhua, Zhang Qianqian, Sun Zhiyuan, Chen Huaqun (106)
Construction of a Colon Cancer Tumor Vaccine Targeting Dendritic Cells	Song Zhengwen, Zhao Zhihui (112)
Loss of <i>tom70</i> (Translocase of Outer Mitochondrial 70) Results in Changes of Cell Dynamics in Fission Yeast	Yuan Rongmei, Ding Xiang, Tan Xiumei, Hou Yiling (120)
Study on Tissue Culture and Rapid Propagation Technology System of <i>Polygonatum sibiricum</i> Red	Tian Huai, Hou Na (129)
Effect of Bottom Water Release on the Contents of N, P, Mn and Fe in Huangcun Reservoir	Wang Yuanfei, Zhou Cuntong, Lin Jie, Fan Xiaoli, Lin Zhihua (136)
Visualization Analysis of Research Hotspots and Frontiers of Information Literacy Education in China from 2000 to 2019	Feng Qing, Li Li (141)

Editor-in-Chief: CHEN Guoxiang, **Executive Editor-in-Chief:** MO Xiangyin, **Executive Editor:** GU Xiaotian