

# 南京师范大学学报

## 工程技术版

2020年6月 第20卷第2期(总第78期)

### 目 录

#### 动力工程及工程热物理

超临界 CO<sub>2</sub> 在螺旋管式冷却器内的传热特性研究 ..... 官万延,陈玮玮,鹿世化(1)

#### 电气工程

忆阻 FitzHugh-Nagumo 神经元电路有限时间同步 ..... 王义波,闵富红,张 雯,叶彪明(7)

基于自适应的配电网分布式电源优化配置研究 ..... 张 航,马 刚,仲泽天(15)

基于混合储能的风力发电功率波动平抑控制研究 ..... 王颢文,王恩荣,张海龙(25)

自力风扇性构件诱发的电机内流型演变特性研究

..... 王 影,丁树业,杨 智,朱 敏,李镇江,李政辉(31)

考虑间歇性负荷的光储微网储能的优化配置技术研究 ..... 沈燕平,鞠 勇,居 茜(39)

基于 ReliefF 的时频联合特征及随机森林的配电网电缆故障识别方法

..... 王 辉,陈佳宁,金 雪,冯 双(44)

#### 测绘科学与技术

融合低秩和形态学的高光谱影像特征提取 ..... 江 楠,张国明,王俊淑,韦玉春(52)

基于无人机高精度 DEM 数据的梯田自动提取算法

..... 赵 飞,熊礼阳,姚 瑾,方 炫,代 文,汤国安(59)

#### 化学工程与技术

甲烷催化裂解制备碳纳米管过程中二氧化碳的影响

..... 刘玉莹,王小琦,翟茂菁,朱晓玮,杨安宇,董 艺,蔡冰玉,朴桂林,王昕晔(66)

#### 城乡规划学

基于航空运输的中国城市体系等级结构与空间联系 ..... 滕 野,张 莉,吴风连(72)

基于多源数据的成都市居民出行热点时空特征分析 ..... 王宇环,靳 诚,杜家祺(80)

#### 生物工程

虎杖中白藜芦醇和虎杖苷的提取工艺研究

..... 张玉千,张 宇,龚赛男,许 瑾,杨阳春(88)

【期刊基本参数】CN32-1684/T \* 2001 \* q \* A4 \* 92 \* zh \* P \* ¥6.00 \* 900 \* 13 \* 2020-06

# JOURNAL OF NANJING NORMAL UNIVERSITY

## ( ENGINEERING AND TECHNOLOGY EDITION)

Vol. 20 No. 2

June, 2020

### CONTENTS

#### Power Engineering and Engineering Thermophysics

Study on the Heat Transfer Characteristics of Supercritical CO<sub>2</sub> in Helical Tube Gas Cooler ..... Guan Wanyan, Chen Weiwei, Lu Shihua (1)

#### Electrical Engineering

Finite-time Synchronization of Memristor-Based FitzHugh-Nagumo Circuit ..... Wang Yibo, Min Fuhong, Zhang Wen, Ye Biaoming (7)

Research on Optimal Configuration of Distributed Power Supply in Distribution Network Based on Adaptive Particle Swarm Optimization Algorithm  
..... Zhang Hang, Ma Gang, Zhong Zetian (15)

Research on Smooth Control of Wind Power Fluctuation with Hybrid Energy Storage ..... Wang Haowen, Wang Enrong, Zhang Hailong (25)

Studies on Flow Patter Evolution Characteristics by Self-support Fan Components Inside Generator  
..... Wang Ying, Ding Shuye, Yang Zhi, Zhu Min, Li Zhenjiang, Li Zhenghui (31)

Research on Optimized Energy Storage Allocation Technology of PV-Storage Microgrid with Intermittent Load  
..... Shen Yanping, Ju Yong, Ju Qian (39)

Fault Identification Method of Distribution Cable Based on Time-Frequency Domain Features Extracted by ReliefF and Random Forest Algorithm  
..... Wang Hui, Chen Jianing, Jin Xue, Feng Shuang (44)

#### Geomatics Science and Technology

Feature Extraction of Hyperspectral Remote Sensing Image Based on Low Rank and Morphology  
..... Jiang Nan, Zhang Guoming, Wang Junshu, Wei Yuchun (52)

An Automatic Extraction Algorithm for Terraced Fields Based on UAV High Precision DEM Data  
..... Zhao Fei, Xiong Liyang, Yao Jin, Fang Xuan, Dai Wen, Tang Guoan (59)

#### Chemical Engineering and Technology

Effect of CO<sub>2</sub> on the Preparation of Carbon Nanotubes by Catalytic Cracking of CH<sub>4</sub>  
..... Liu Yuying, Wang Xiaoqi, Zhai Maojing, Zhu Xiaowei, Yang Anyu, Dong Yi, Cai Bingyu, Piao Guilin, Wang Xinye (66)

#### Urban Planning

Hierarchical Structure and Spatial Connection of Chinese Urban System Based on Air Transportation ..... Teng Ye, Zhang Li, Wu Fenglian (72)

Temporal and Spatial Characteristics of Traveling Hotspots of Chengdu Residents Based on Multi-source Data  
..... Wang Yuhuan, Jin Cheng, Du Jiazhen (80)

#### Biological Engineering

Study on Extraction Technology of Resveratrol and Glucoside from Polygonum Cuspidatum  
..... Zhang Yuqian, Zhang Yu, Gong Sainan, Xu Jin, Yang Yangchun (88)

Editor-in-Chief: HU Minqiang; Executive Editor-in-Chief: MO Xiangyin; Executive Editor: CHEN Qing;

Translation Editor: SI Lianhe