

郑州大学学报(工学版)

第 44 卷 第 4 期

2023 年 7 月

目 次

机器学习与计算应用

- 低资源少样本连续语音识别最新进展 屈丹, 杨绪魁, 闫红刚, 陈雅淇, 牛铜(1)
基于对抗机制的彩色图像隐写分析算法 张涛, 葛育伟, 韩旭, 张昊, 汪然(10)
改进 YOLOv5 算法在停车场火灾检测中的应用 张震, 晋志华, 陈可鑫(16)
复合可靠性分析下的不平衡数据证据分类 田鸿朋, 张震, 张思源, 肖宗荣, 董佳兵(22)

机械与动力工程

- 螺旋管内局部二次流强度计算及演变规律 吴金星, 徐耀, 李松歌, 肖嘉邦, 马宇翔(29)
瓦楞式固体氧化物燃料电池的结构优化 靳遵龙, 杨磊, 霍东方, 刘杨, 樊晟两(35)
插针机构中圆柱凸轮滚子疲劳寿命预测方法 王星龙, 陶宗杰, 杨泊莘, 安琦(41)
垃圾焚烧炉低温腐蚀机理的分子动力学模拟 汤松臻, 韩奎, 周俊杰(48)

智能信息

- 基于小波变换的扩散焊超声 C 图像融合算法 常青, 杨程伟, 罗彬杰, 李细峰(54)
基于信源信息熵最小的单通道盲源数估计算法 毛玲, 赵联文, 孟华, 李雨锴(60)
双无人飞行平台的多传感器规划调度 赵坤, 隋旭东, 梁静, 岳彩通, 李功平, 于坤杰(67)

化工与材料工程

- K 负载 $\text{Sn}_{0.4}\text{Ce}_{0.6}\text{O}_2$ 对碳烟的催化燃烧性能研究 张长森, 李聪聪, 代稳月, 王登台(74)
骨替代生物陶瓷材料的研究现状
..... 高金星, 李丽亚, 穆菁华, 徐恩霞, 刘新红, 马成良, 张灿, 张丽果(80)
竖罐炼镁过程中镁蒸气流动相变规律 陈毛, 张少军, 李荣斌, 南俊杰, 刘金辉, 杨沛胥(88)
氮掺杂活性炭对环丙沙星的吸附性能与机理 牛新勇, 常春, 韩秀丽, 宋建德(94)
氧化铁对稳定镁白云石材料性能的影响
..... 陶梦雅, 高正霞, 刘伟, 李祥, 郭小腾, 锁东, 田世帅, 马成良(101)
PB 试验-响应面法优化黄芩提取物的纯化工艺 孙鑫, 王献丽, 马晓吉, 邓芳芳, 潘成学(107)

土木工程

- 移动荷载作用下机场复合道面力学响应分析 郭成超, 张顺杰, 周鸿昌, 刁岳亮, 闫卫红(113)
含盐冻土冻结温度及导热系数试验研究 靳贻杰, 陶勇, 张婷, 杨平(120)

期刊基本参数: CN 41-1339/T * 1980 * b * A4 * 126 * zh * P * ¥ 20.00 * 500 * 19 * 2023-07

责任编辑: 李娜, 向飒

JOURNAL OF ZHENGZHOU UNIVERSITY (ENGINEERING SCIENCE)

Vol. 44 No. 4

Jul. 2023

CONTENTS

[Machine Learning and Computing Applications]

- Overview of Recent Progress in Low-resource Few-shot Continuous Speech Recognition QU Dan, YANG Xukui, YAN Honggang, CHEN Yaqi, NIU Tong (1)
Color Image Steganalysis Algorithm Based on Adversarial Mechanisms ZHANG Tao, GE Yuwei, HAN Xu, ZHANG Hao, WANG Ran (10)
Application of Improved YOLOv5 Algorithm in Parking Lot Fire Detection ZHANG Zhen, JIN Zhihua, CHEN Kexin (16)
Imbalanced Data Evidential Classification with Composite Reliability TIAN Hongpeng, ZHANG Zhen, ZHANG Siyuan, XIAO Zongrong, DONG Jiabing (22)

[Mechanical and Power Engineering]

- Intensity Calculation and Development Law of Local Secondary Flow in Helical Tubes WU Jinxing, XU Yao, LI Songge, XIAO Jiabang, MA Yuxiang (29)
Optimization of Structure for MOLB-type Solid Oxide Fuel Cell JIN Zunlong, YANG Lei, HUO Dongfang, LIU Yang, FAN Shengliang (35)
Prediction Method of Fatigue Life of Cylindrical Cam Rollers in Pin Insertion Mechanism WANG Xinglong, TAO Zongjie, YANG Boxin, AN Qi (41)
Molecular Dynamics Simulation of Low Temperature Corrosion Mechanism of Waste Incinerator TANG Songzhen, HAN Kui, ZHOU Junjie (48)

[Intelligent Information]

- Ultrasonic C Image Fusion Algorithm for Diffusion Welding Based on Wavelet Transform CHANG Qing, YANG Chengwei, LUO Binjie, LI Xifeng (54)
Single Channel Blind Source Number Estimation Algorithm Based on Source Information Entropy Minimization MAO Ling, ZHAO Lianwen, MENG Hua, LI Yukai (60)
Multi-Sensor Planning and Scheduling of Dual Unmanned Flight Platforms ZHAO Kun, SUI Xudong, LIANG Jing, YUE Caitong, LI Gongping, YU Kunjie (67)

[Chemical and Material Engineering]

- Study on Catalytic Combustion Performance of K-supported $\text{Sn}_{0.4}\text{Ce}_{0.6}\text{O}_2$ for Soot ZHANG Changsen, LI Congcong, DAI Wenyue, WANG Dengtai (74)
Research Status of Bioceramic Materials for Bone Substitute GAO Jinxing, LI Liya, MU Jinghua, XU Enxia, LIU Xinhong, MA Chengliang, ZHANG Can, ZHANG Liguo (80)
Flow and Phase Change Characteristics of Magnesium Vapor in Vertical Retort during Silicothermic Process CHEN Mao, ZHANG Shaojun, LI Rongbin, NAN Junjie, LIU Jinhui, YANG Peixu (88)
Adsorption Performance of Nitrogen-doped Activated Carbon for Ciprofloxacin NIU Xinyong, CHANG Chun, HAN Xiuli, SONG Jiande (94)
Effect of Iron Oxide on Properties of Stabilized Magnesia Dolomite TAO Mengya, GAO Zhengxia, LIU Wei, LI Xiang, GUO Xiaoteng, SUO Dong, TIAN Shishuai, MA Chengliang (101)
Optimization of Purification Process of Scutellaria Baicalensis Extract by PB Test with Response Surface Methodology SUN Xin, WANG Xianli, MA Xiaoji, DENG Fangfang, PAN Chengxue (107)

[Civil Engineering]

- Mechanical Response Analysis of Airport Composite Pavement with Moving Load GUO Chengchao, ZHANG Shunjie, ZHOU Hongchang, DIAO Yueliang, YAN Weihong (113)
Experimental Study on Freezing Temperature and Thermal Conductivity of Salty Frozen Soil JIN Yijie, TAO Yong, ZHANG Ting, YANG Ping (120)