

目次

材料科学与工程: 能源存储与转化

- 中空球形 MoS₂/C 复合材料的构筑及储锂性能 何大方, 陆俊泓, 朱 晔, 黄 洁, 王 顺 (1)
- Cu-BTC 和石墨烯改性的高性能染料敏化太阳能电池 唐 波, 张国良 (10)
- Co₃O₄/Co-NC 电催化剂的制备及锌空气电池性能 刘文君, 任玉荣 (18)

机械与动力工程

- 灭菌温度对超细晶 Zn-0.3Mn 合金力学和腐蚀性能的影响
..... 郭浦山, 王宇伟, 刘雅玄, 丁 锋, 张竞丹, 杨丽景, 张 屹 (30)
- 基于能量交换的在轨加注旋涡泵水力特性研究 李倩倩, 陆 怡, 常爱莲, 倪祖国, 郭春林 (40)

计算机与信息工程

- 基于 YOLOv4 的行人检测算法 王洪元, 齐鹏宇, 唐 郢, 张 继, 朱 繁, 徐志晨 (52)
- Spark 异构集群负载均衡调度策略 陶宇炜, 谢爱娟 (61)

土木工程

- 氯化铵溶液加速水泥基材料钙溶蚀的最佳浓度
..... 王少伟, 高文龙, 肖焰钰, 吴佳雯, SYED Piyar Ali Shah (71)
- 传染病医院负压隔离病房的通风需求 刘明鑫, 刘俊杰 (78)

环境科学与工程

- 铸造车间热工艺伴生散发类高温颗粒的污染特征研究
..... 庄加玮, 陈庚阳, 刘楠楠, 刘恩海, 郭 强, 刁永发 (84)

Contents

Materials Science and Engineering: Energy Storage and Transformation

- Preparation and lithium-storage properties of hollow sphere MoS₂/C nanocomposites HE Dafang, LU Junhong, ZHU Ye, HUANG Jie, WANG Shun(1)
- Cu-BTC and graphene co-modified dye sensitize solar cells with high performances TANG Bo, ZHANG Guoliang(10)
- Preparation of Co₃O₄/Co-NC electrocatalyst and performance in rechargeable Zn-air batteries ... LIU Wenjun, REN Yurong(18)

Mechanical and Power Engineering

- Effect of sterilization temperatures on the mechanical and corrosion properties of ultrafine-grained Zn-0.3Mn alloy GUO Pushan, WANG Yuwei, LIU Yaxuan, DING Feng, ZHANG Jingdan, YANG Lijing, ZHANG Yi(30)
- Investigation on hydraulic characteristics of the regenerative flow pump in on-orbit filling based on energy exchange LI Qianqian, LU Yi, CHANG Ailian, NI Zuguo, GUO Chunlin(40)

Computer and Information Engineering

- Pedestrian detection algorithm based on YOLOv4 WANG Hongyuan, QI Pengyu, TANG Ying, ZHANG Ji, ZHU Fan, XU Zhichen(52)
- Load balancing scheduling policies for Spark heterogeneous clusters TAO Yuwei, XIE Aijuan(61)

Civil Engineering

- Appropriate concentration of ammonium chloride solution to accelerate calcium leaching of cement-based materials WANG Shaowei, GAO Wenlong, XIAO Yanyu, WU Jiawen, SYED Piyar Ali Shah(71)
- Ventilation requirements for negative pressure isolation wards in infectious disease hospitals ... LIU Mingxin, LIU Junjie(78)

Environmental Science and Engineering

- Study on pollution characteristics of emitted high-temperature particles associated with thermal process in the casting workshops ZHUANG Jiawei, CHEN Gengyang, LIU Nannan, LIU Enhai, GUO Qiang, DIAO Yongfa(84)