

## 目 次

### · 材料科学 ·

- 双离子电池的研究与应用 ..... 杨景海, 张 阁(1)
- 二氧化钛/金属有机骨架复合材料的制备及其应用  
..... 车广波, 马裕枫, 王 莹, 李寓函(12)
- NiFe<sub>2</sub>O<sub>4</sub>/TiO<sub>2</sub>纳米颗粒材料的磁性及光催化性能研究  
..... 徐仕翀, 李宇宁, 韩 娜, 李嘉宁, 孔睿麟, 李冠兴, 徐凯月, 王明水(29)
- NF@ Ni<sub>3</sub>S<sub>2</sub>超级电容器电极材料的性能研究 ..... 吕世权, 王丹阳(35)
- 聚噻吩咔唑共轭微孔聚合物 CO<sub>2</sub>吸附性能研究  
..... 姚 婵, 龙 霞, 赵 鑫, 杨婉莹, 董 博, 许彦红(40)

### · 数学 ·

- 基于风险度量模型的高频股票交易数据的比较分析  
..... 董小刚, 高 斌, 张 森, 虞 迪(46)
- 基于贝叶斯 Cox 分段指数模型的烧伤感染时间分析 ..... 王纯杰, 罗琳琳, 张 乐(54)
- 具有离散分布的两阶段随机二阶锥规划问题的最优化条件  
..... 任咏红, 陈 畅, 王佳丽, 任健盛(64)
- 趋势拟合法在旅游人数分析中的应用 ..... 徐 宝, 乔 越, 郑成秋(70)

· 物理与信息技术科学 ·

典型外飘剖面有限水域入水砰击分析 ..... 陈超核,袁颖聪(74)

· 化学与环境科学 ·

荧光法测定水杨酸片中水杨酸的含量 ..... 孙艳涛,李美锡,刘仕聪,李林,刘洋(83)

双比率荧光分子印迹的制备及其可视化选择性检测邻苯二甲酸二甲酯的研究

..... 任百祥,白鸽,翟天琦,王雪,赵爽,高林(89)

· 生命科学 ·

钝黑离眼蚜蝇触角感受器扫描电镜观察 ... 郝锡联,张雨薇,朱慧,田径,任炳忠(98)

基于孢粉植物类群气候区间的全新世东北地区气候变化

..... 周晓梅,刘宝健,介冬梅(104)

组培过程中菇娘试管苗玻璃化防控技术研究 ..... 贺红利,张强,刘剑锋(111)

玉米毛状根再生植株根系的植物内源激素动态变化研究

..... 未晓巍,陈志鹏,郭丽,刘凡语,谈韫,周晓馥(116)

木霉菌 Strain T1122 分子鉴定及其降氮除磷效应研究

..... 张兴政,姜红珊,魏珩,黄立龙,程云清(122)

· 计算机科学 ·

NAO 机器人共享实验平台设计与实现 ... 王大东,王鹏,孙明辰,刘倩,王晓宇(128)

· 地理科学 ·

城市暴雨内涝灾害居民避难行为规律研究 ..... 陈鹏,赵洪阳,张硕,鲍建华(134)

## **CONTENTS**

Applicationand research of dual-ion batteries .....	YANG Jing-hai,ZHANG Ge(11)
Preparation and application of TiO <sub>2</sub> /MOFs composites .....	CHE Guang-bo,MA Yu-feng,WANG Ying, <i>et al.</i> (28)
Study of magnetic and photocatalytic properties of NiFe <sub>2</sub> O <sub>4</sub> /TiO <sub>2</sub> nanoparticles .....	XU Shi-chong,LI Yu-ning,HAN Na, <i>et al.</i> (34)
Pine-like NF@ Ni <sub>3</sub> S <sub>2</sub> nano-structureas arrays for high-performance supercapacitors .....	LYU Shi-quan,WANG Dan-yang(39)
Study on the adsorption of CO <sub>2</sub> by conjugated microporous polymer of thiophene carbazole .....	YAO Chan,LONG Xia,ZHAO Xin, <i>et al.</i> (45)
Comparative analysis of high-frequency stock trading data based on risk measurement models .....	DONG Xiao-gang,GAO Bin,ZHANG Miao, <i>et al.</i> (53)
Analysis of burn infection data based on Bayesian Cox piecewise exponent model .....	WANG Chun-jie,LUO Lin-lin,ZHANG Le(63)
Optimality conditions for two-stage stochastic second-order cone programming problems with discrete distributions .....	REN Yong-hong,CHEN Chang,WANG Jia-Li, <i>et al.</i> (69)
Application of method for fitting trend in analyzing tourist number .....	XU Bao,QIAO Yue,ZHENG Cheng-qiu(73)
Numerical investigation on the limited water entry of typical hull flare section .....	CHEN Chao-he,YUAN Ying-cong(82)
Determination of salicylic acid in salicylic acid tablets by fluorescence spectrometry .....	SUN Yan-tao,LI Mei-xi,LIU Shi-cong, <i>et al.</i> (88)
Synthesis of ratiometric fluorescent molecularly imprinted polymers for selective determination of dimethyl phthalate .....	REN Bai-xiang,BAI Ge,ZHAI Tian-qi, <i>et al.</i> (97)
Scanning electron microscope observation of antennae receptors of <i>Eristalinus sepulchralis</i> .....	HAO Xi-lian,ZHANG Yu-wei,ZHU Hui, <i>et al.</i> (103)
Climate change in northeast China of holocene based on climate interval of palynological flora .....	ZHOU Xiao-mei,LIU Bao-jian,JIE Dong-mei(110)
Study on the prevention and control technology of vitrification of test tube seedlings of <i>Physalisalkengi</i> L. var. <i>franchetii</i> ( Mast. ) Makino in the process of tissue culture .....	HE Hong-li,ZHANG Qiang,LIU Jian-feng(115)
Dynamic research of endogenous hormone in the roots of hairy root regeneration plant of maize .....	WEI Xiao-wei,CHEN Zhi-peng,GUO li, <i>et al.</i> (121)
Molecular identification of strain T1122 and its effect on nitrogen and phosphorus reduction in sewage treatment .....	ZHANG Xing-zheng,JIANG Hong-shan,WEI Heng, <i>et al.</i> (127)
Design and implementation on NAO robot sharing experimental ...	WANG Da-dong,WANG Peng,SUN Ming-chen, <i>et al.</i> (133)
Study on the shelter behavior of residents in urban rainstorm and waterlogging disaster .....	CHEN Peng,ZHAO Hong-yang,ZHANG Shuo, <i>et al.</i> (140)