

四川理工学院学报(自然科学版)

(双月刊)

2012年第25卷第2期(总第108期)

目次

· 综 述 ·

分形在水文水资源水环境中的应用研究与展望

谢云霞, 靳玉芝(1)

· 化学、生物及材料科学 ·

响应面法优化甘薯叶 SOD 的提取工艺

潘明, 谢仁有, 洪玉程(5)

鲜切茄子酶促褐变的过氧化物酶的特性研究

刘春丽, 陈欲云(8)

钛酸酯偶联剂表面改性煤矸石粉的研究

张文铁(12)

DDA⁴⁺ 柱撑水滑石类层状超分子化合物的合成和表征

王军, 赵林桐, 章有国, 程凤凯, 蔡中会(16)

· 机械、电子及计算机科学 ·

一种分割法阈下信道构造方案

吕晓庆, 郑毅, 魏航(19)

循环蠕变加载下疲劳裂纹扩展速率的探讨

于强(22)

薄板样条函数在城市三维地质建模中的应用

岳云娟, 张庆敏, 白林(28)

虚拟现实技术在数控维修软件开发与教学中的应用

王卫东, 李海清(31)

物联网中 LEACH 算法的研究与改进

张冬悦, 徐四委, 高辉(35)

| | |
|------------------------|--------------------|
| 基于人性化理念的高校心理障碍咨询测评系统设计 | 梁兴建,雷文,李海峰(39) |
| 基于物联网的资源映射算法研究 | 赵俊涛,徐四委,高辉(43) |
| 基于小世界的物联网中副本定位算法 | 高辉,张冬悦,赵俊涛,吴吉红(47) |
| 基于 ARMA 模型滤波的微弱信号辨识 | 高丽丽,何松柏(51) |
| 基于数据挖掘的自动化推荐系统算法 | 朱文忠(55) |

· 工程质量、安全与防灾减灾 ·

(栏目主持人:吴佳晔博士)

| | |
|--------------------------|--------------------|
| 基于 FLAC3D 的浮托型推移式滑坡稳定性分析 | 易朋莹,邓时义,吕涛,吴韩(60) |
| 某大型地下室的顶板裂缝分析及抗裂措施探讨 | 徐茂辉,常亮(64) |
| 一维冲击弹性波波速测试方法的研究 | 刘华,黄伯太(68) |
| CFG 桩复合地基应力传递及沉降计算研究 | 刘昭,王吉庆,平沙沙,王晓光(71) |

· 数理基础科学 ·

| | |
|---|-------------------|
| 随机环境中马氏链的特征数与禁止概率 | 崔静(74) |
| K - 均值算法中聚类个数优化问题研究 | 韩凌波(77) |
| 一类非线性金融系统的 hopf 分岔研究 | 张荣艳(81) |
| M - 矩阵与其逆矩阵的 Hadamard 积最小特征值的新下界 | 刘新,杨晓英(84) |
| 一类 Weierstrass 函数图像的 K - 维数式 | 黄铭,张静,刘鸿博,朱春梅(88) |
| 三角拟合解振荡微分方程的修正的预估校正方法 | 郑娟(91) |
| 不定方程 $m^4x(x+1)(x+2)(x+3) = (m^4-1)y(y+1)(y+2)(y+3)$ 的整数解 | 郑惠(95) |
| 系统灰预测在货运周转量中的应用 | 郑毅,吕晓庆,郭怡萍(97) |

CONTENTS

Application of Fractal Theory to Hydrology, Water Resources and Water Environment XIE Yun-xia, JIN Yu-zhi(1)

Optimization of Extraction Technology of the Sweet Potato Leaves SOD by Response Surface Methodology
..... PAN Ming, XIE Ren-you, HONG Yu-cheng(5)

Study on the Characteristics of Enzyme Browning of Peroxidase in Fresh-cut Eggplant LIU Chun-li, CHEN Yu-yun(8)

Study on Surface Modification of Coal Gangue Powder by Titanate Coupling Agent ZHANG Wen-tie(12)

Synthesis and Properties of Layered Hydroxides Intercalated with DDA⁴⁻
..... WANG Jun, ZHAO Lin-tong, ZHANG You-guo, XUE Feng-kai, CAI Zhong-hui(16)

A New Scheme of Subliminal Channel Based on Partition Method LV Xiao-qing, ZHENG Yi, WEI Hang(19)

Research on the Fatigue Crack Growth Rate under Cyclic Creep Loading YU Qiang(22)

Application of Thin Plate Splines in the City's Three Dimensional Geological Modeling
..... YUE Yun-juan, ZHANG Qing-ming, BAI Lin(28)

Application of Virtual Reality Technology in the Numerical Control Maintenance Software Development and Teaching
..... WANG Wei-dong; LI Hai-qing(31)

Research and Improvement on LEACH Algorithm for Internet of Things ZHANG Dong-yue, XU Si-wei, GAO Hui(35)

Design of a Humanistic Psychological Counseling and Assessment System in Universities
..... LIANG Xing-jian, LEI Wen, LI Hai-feng(39)

Research on Resources Mapping Algorithm Based on the Internet of Things ZHAO Jun-tao, XU Si-wei, GAO Hui(43)

Replica Location Algorithm Approach Based on the Small World in the Internet of Things
..... GAO Hui, ZHANG Dong-yue, ZHAO Jun-tao, WU Ji-hong(47)

Time-Frequency Identification of Weak Signal Using ARMA Filter GAO Li-li, HE Song-bai(51)

Algorithm of Automatic Recommender System Based on Data Mining ZHU Wen-zhong(55)

Analysis of Stability for Floated-pushed Landslide Based on FLAC3D YI Peng-ying, DENG Shi-yi, LV Tao, WU Han(60)

Analysis of the Cracks on Top Plate of a Basement and Preventing Measure XU Mao-hui, CHANG Liang(64)

Research of Measurement Speed Method Based on One-dimensional Impact Elastic Wave LIU Hua, HUANG Bo-tai(68)

Research on CFG Pile Composite Foundation Stress Transmission and Settlement Calculation
..... LIU Zhao, WANG Ji-qing, PING Sha-sha, WANG Xiao-guang(71)

Characteristic Number and Taboo Probability of Markov Chains in Random Environments CUI Jing(74)

Optimization Study on Class Number of K-means Algorithm HAN Ling-bo(77)

Study on the Hopf Bifurcation of a Kind of Non-linear Finance System ZHANG Rong-yan(81)

New Lower Bounds for the Minimum Eigenvalue of the Hadamard Product of the M-matrix and Its Inverse Matrix
..... LIU Xin, YANG Xiao-ying(84)

On K-dimension of a Weierstrass-type Function HUANG Ming, ZHANG Jing, LIU Hong-bo, ZHU Chun-mei(88)

Trigonometrically Fitted Modified Predictor-corrector Scheme for IVPs with Oscillating Solutions ZHENG Juan(91)

Solutions of Diophantine Equation $m^4x(x+1)(x+2)(x+3) = (m^4-1)y(y+1)(y+2)(y+3)$ ZHENG Hui(95)

Freight Turnover Prediction Based on Systematic Grey Prediction ZHENG Yi, LV Xiao-qing, GUO Yi-ping(97)