

ISSN 1000-1735

CODEN LSDKEQ

辽宁师范大学学报

全国综合性科学技术类核心期刊

中国科技核心期刊

“中国期刊方阵”双效期刊

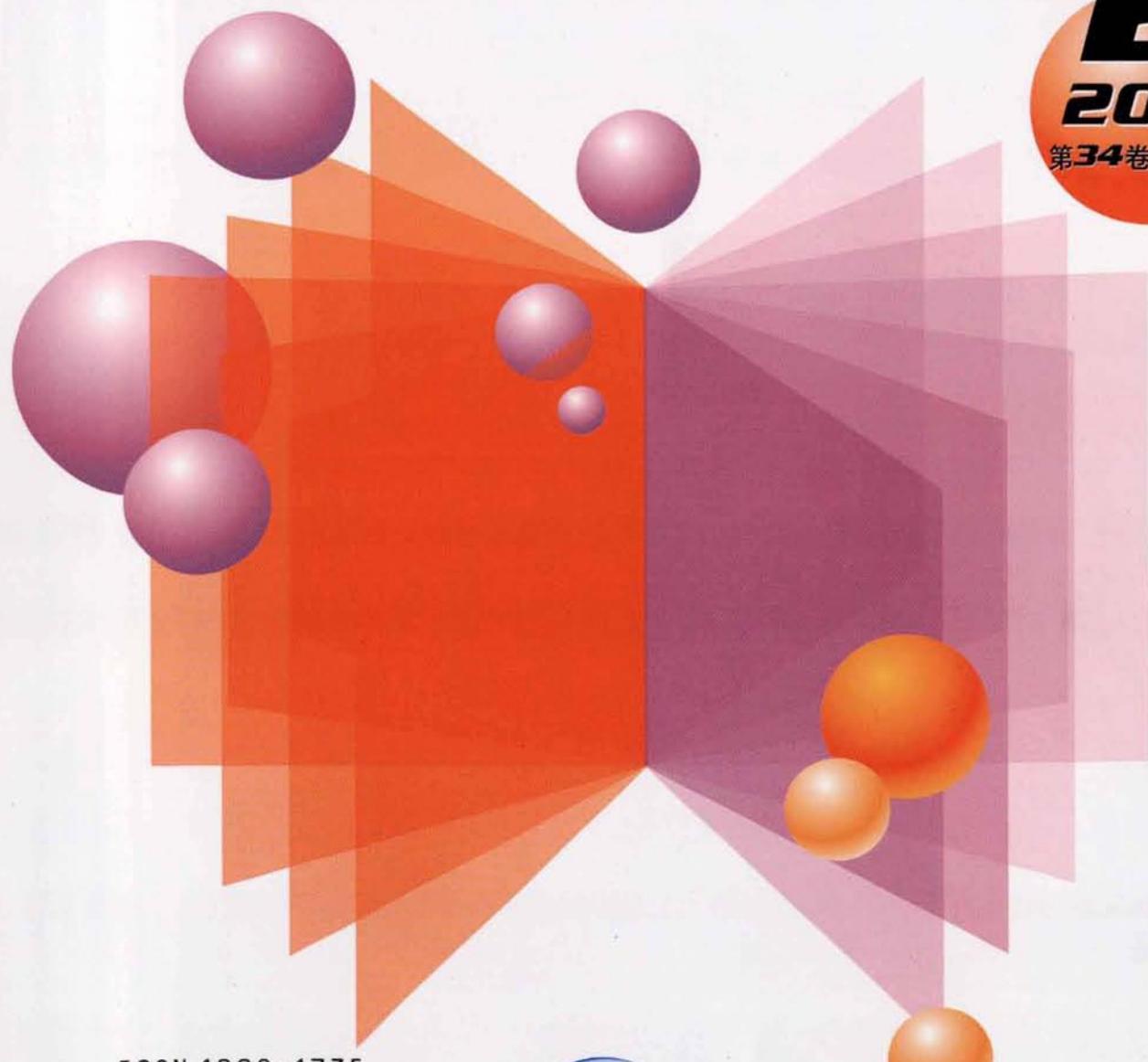
全国高校优秀科技期刊

自然科学版 NATURAL SCIENCE EDITION

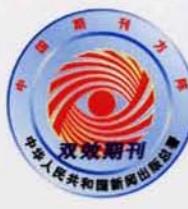
Journal of Liaoning Normal University

2
2011

第34卷 第2期



ISSN 1000-1735



中国·大连

目 次

在 R^N 上的具有线性记忆项的非线性反应扩散方程的吸引子的

Hausdorff 维数和分形维数估计 韩英豪, 程艳丽(129)

基于一个模糊蕴涵的概率密度函数和模糊系统 张 妍, 袁学海, 李洪兴(137)

变系数高阶中立型差分方程非振动解的存在性 沈 洁, 郭瑞霞, 曾 雪(142)

加柄定理的一个推广 赵凌琪, 黎 明(146)

图 $\bigcup_{i=1}^{m_i} \bigwedge A(n_i)$ 的优美性 张志尚, 王春月(149)

基于 FAHP 的城市交通环境综合评价——以上海市为例 赵文会, 杨光勇, 彭文卫, 沐东官(153)

矩阵的分块与应用 高振兴(157)

一种新的构造粒子波函数方法 戴连荣, 敖霜雪, 孙微微, 王礼星(161)

基于 2DPCA-ICA 和 SVM 的车标识别新方法 李文举, 孙娟红, 韦丽华, 李 侠(166)

基于 OpenCV 的车牌识别系统研究 美 宇, 张子潮, 周富强(170)

一种基于对话的电子商务推荐系统 薛伟莲, 王蕴慧(175)

Be_2 二聚体分子形貌的理论研究 杨忠志, 王世军(179)

系列 $Ln(III)$ 配合物的合成、晶体结构及近红外发光 [$Ln(III)=Ho, Er, Nd$]

..... 牛淑云, 李海彦, 王兆龙, 吕春欣(184)

纳米银修饰石墨电极伏安法测定过氧化氢 冯春梁, 韩玉花, 李亚男, 赵 新(188)

- 含油污泥水洗分离工艺条件探索 武 跃, 祝 愿, 孙 悅, 王 凡, 田 星(192)
- 含偶氮苯结构聚酯的合成及性能 于世钧, 高 博, 王 璐, 王 红, 高永久(195)
- AZ91D 镁合金在 NaCl 溶液中的电化学噪声现象 王风平, 张玉楠, 吕红梅(199)
- 甲酸-H₂O₂物系氧化苯乙烯制苯甲酸 孙 瑛, 王丽润, 崔 岩(203)
- 鸡肝碱性磷酸酶提取及在线固定化研究 杨 梅, 张 强, 王 欢, 徐 芬, 孙 彤(206)
- 水合碱金属离子团簇 Rb⁺(H₂O)_n 和 Cs⁺(H₂O)_n 的量子化学研究 宫利东, 龚海丹(209)
- 碳氢清洗剂再生利用工艺方法的研究 刘瑞广(213)
- 主要组织相容性复合体(MHC)的起源与进化概述 李庆伟, 宋德利, 郭仁勇(216)
- 人参皂甙 Rh2 和桦木酸协同诱导 A549 细胞凋亡的研究 李 清, 王晓宇, 金英花(220)
- 柚皮总黄酮的提取及其抗氧化活性研究 杨淑文, 马 兴, 汪业菊(225)
- 高住低训习服过程大鼠自由基代谢动态变化的研究 李 玉(228)
- 基于托达罗模型的辽宁沿海经济带农村人力资源转移模式 单 良, 凌 竹, 赵 京(231)
- 丹东城区 SO₂污染的模型拟合与试报分析 姜信君(235)
- 大连自由贸易港的建设及其目标模式 吕 芳(239)
- 辽宁省学术期刊编辑心理健康状况调查分析 张秀红, 吴 琼(243)
- 数字出版模式中的编辑定位与职能 张 洋(247)
- 大连市高校网球运动的发展现状 宋颖达, 王浩然(250)
- 高校体育教学对理工科学生心理健康改善的对比实验 付海鹰, 曹 平, 韩 飞(253)

期刊基本参数:CN 21-1192/N * 1978 * q * A4 * 128 * zh * P * ¥8.00 * 1300 * 32 * 2011-06

本期执行编辑:金 伟

**JOURNAL OF LIAONING NORMAL UNIVERSITY
(NATURAL SCIENCE EDITION)**
Vol. 34 No. 2 2011(SUM134)

CONTENTS

Estimates on the Hausdorff and fractal dimension of attractors for nonlinear reaction

diffusion equations with linear memory in R^N HAN Ying-hao, CHENG Yan-li(129)

Probability distribution and fuzzy system based on one implication

..... ZHANG Yan, YUAN Xue-hai, LI Hong-xing(137)

Existence of nonoscillatory solutions of higher-order neutral difference equations with variable coefficients

..... SHEN Jie, GUO Rui-xia, ZENG Xue(142)

A generalization of the handle addition theorem ZHAO Ling-qi, LI Ming(146)

On the gracefulness of $\bigcup_{i=1}^{m_i} \bigwedge_{j=1}^{n_i} A(n_j)$ ZHANG Zhi-shang, WANG Chun-yue(149)

Comprehensive comments on the urban traffic environment rased on FAHP-a Shanghai perspective

..... ZHAO Wen-hui, YANG Guang-yong, PENG Wen-wei, MU Dong-guan(153)

Study on the blocking and application for matrix GAO Zhen-xing(157)

A new method for constructing flavor wave function

..... DAI Lian-rong, AO Shuang-xue, SUN Wei-wei, WANG Li-xing(161)

A novel method for vehicle-logo recognition based on 2DPCA-ICA and SVM

..... LI Wen-ju, SUN Juan-hong, WEI Li-hua, LI Xia(166)

Research of vehicle license plate recognition based on OpenCV

..... JIANG Yu, ZHANG Zi-chao, ZHOU Fu-qiang(170)

An E-commerce recommender system based on dialogs XUE Wei-lian, WANG Yun-hui(175)

The theory study on molecular face of Be_2 dimer YANG Zhong-zhi, WANG Shi-jun(179)

Synthesis, crystal structures and Near-infrared luminescent of series of $Ln(III)$ complexes

($Ln(III) = Ho, Er, Nd$) NIU Shu-yun, LI Hai-yan, WANG Zhao-long, LU Chun-xin(184)

Silver nanoparticles modified graphite electrodefor voltammetric detection of hydrogen peroxide

..... FENG Chun-liang, HAN Yu-hua, LI Ya-nan, ZHAO Xin(188)

Oily sludge separation process on the condition of washing

.....	WU Yue, ZHU Yuan, SUN Yue, WANG Fan, TIAN Xing(192)
Synthesis and properties of polyesters containing azobenzene unit	
.....	YU Shi-Jun, GAO Bo, WANG Lu, WANG Hong, GAO Yong-Jiu(195)
Electrochemical noise of AZ91D magnesium alloy in sodium chloride solution	
.....	WANG Feng-ping, ZHANG Yu-nan, LÜ Hong-mei(199)
Oxidation of styrene by formic acid-H ₂ O ₂ system SUN Qi, WANG Li-run, CUI Yan(203)
The extraction of big-bone chicken liver alkaline phosphatase and its on-line immobilization	
.....	YANG Mei, ZHANG Qiang, WANG Huan, XU Fen, SUN Tong(206)
Quantum chemical studies on the hydrated clusters of alkaline-metal cation Rb ⁺ (H ₂ O) _n and Cs ⁺ (H ₂ O) _n	
.....	GONG Li-dong, GONG Hai-dan(209)
Study on the recovery process of hydrocarbon cleaning agent LIU Rui-guang(213)
The origin and evolution on major histocompatibility complex LI Qing-wei, SONG De-li, GUO Ren-yong(216)
Synergism of ginsenoside Rh2 and betulinic acid to induce apoptosis in A549 cells	
.....	LI Qing, WANG Xiao-yu, JIN Ying-hua(220)
Studies on extraction of total flavonoids from pomelo peel and its antioxidative activity	
.....	YANG Shu-wen, MA Xing, WANG Ye-ju(225)
The dynamic changing of free radical metabolism caused by HiLo LI Yu(228)
The analysis of rural human resources' transfer model in Liaoning coastal economic zone based on the Todaro Model	
.....	SHAN Liang, LING Zhu, ZHAO Jing(231)
Modeling fitting and report analysis of SO ₂ contamination in the urban areas of dandong city	... JIANG Xin-jun(235)
The strategic study on the construction of free trade port of Dalian LÜ Fang(239)
The current mental health situation and its relevant influencing factors of academic journal editors in Liaoning province	
.....	ZHANG Xiu-hong, WU Qiong(243)
The role orientation and function of editor in mode of digital publishing ZHANG Yang(247)
The current state of the development of tennis in the universities of Dalian city comes and develops into a study of a measure	
.....	SONG Ying-da, WANG Hao-ran(250)
The comparative experiment of physical education to improve the mental health of science and engineering students	
.....	FU Hai-ying, CAO Ping, HAN Fei(253)