



目 次

· 轻工技术与工程 ·

- 氢键协同效应对 MOFs 修饰功能纸热性能的影响 张美云, 杨 强, 宋顺喜(1)
- 碱/酶处理对载银纤维素纤维复合材料制备的影响 徐永建, 徐 洋, 刘 真, 等(6)
- 三聚氰胺甲醛树脂对醋酸酯淀粉的增强性能研究 王 建, 陈 伟, 屈迹霜, 等(12)
- 酶预处理结合高压均质机制备纤维素微纤丝的初步研究
..... 王志杰, 康 艳, 王 转, 等(16)
- 助剂强化碱预处理对玉米秸秆酶解糖化的影响 迟聪聪, 柳 咪, 来 贤, 等(22)
- 稀酸预处理对毛竹微结构及其反应特性的影响 娄 瑞, 张安龙, 孙旺生, 等(28)
- 羽绒染色工艺技术研究 强涛涛, 赵 静, 李 娟, 等(32)

· 材料科学与工程 ·

- $\text{BiFeO}_3/\text{CoFe}_2\text{O}_4$ 薄膜的制备及多铁电性能研究 谈国强, 乐忠威, 夏 傲, 等(37)
- $\text{Ba}_3\text{Y}(\text{BO}_3)_3:\text{Eu}^{3+}$ 的水热合成及发光性能 史永胜, 姜佳敏, 周翠翠(42)
- 溶液 pH 值对锰酸镧粉体光催化性能的影响 李军奇, 李伟杰, 何选盟, 等(46)
- Ti_2AlN 陶瓷粉体在酸性溶液中的水热腐蚀行为 刘 毅, 张梨梨, 李莹欣, 等(51)
- 还原氧化石墨烯/过氧化聚吡咯膜负载氢氧化钴修饰电极检测过氧化氢
..... 乔金丽, 高小玲, 徐 娜, 等(55)
- 氧化石墨烯增强增韧水泥基复合材料的结构和性能 赵海锋, 吕生华, 邓丽娟(60)

· 化学与化学工程 ·

- 甲基丙烯酸甲酯(MMA)/丙烯酸异辛酯(EHA)对水性丙烯酸/醇酸树脂性能的影响
..... 沈一丁, 贾贵玉, 费贵强, 等(65)
- 磷酸酯型三硅氧烷表面活性剂的合成及应用性能 黄良仙, 李顺琴, 李 婷, 等(71)
- 汽车罩光清漆用双组分水性丙烯酸树脂涂料的制备及其性能
..... 来水利, 王晶丽, 于金凤(76)

室温聚羧酸减水剂制备及与蒙脱土作用机理	张光华, 何志琴, 王 睿, 等(82)
丙烯酸树脂改性水性硝化纤维乳液的制备及性能研究 苏秀霞, 赵擎霄, 宋 洁, 等(87)
柴油基纳米粒子乳液的制备及其堵水性能研究	李刚辉, 樊孟孟, 王婷婷, 等(92)
RAFT 聚合诱导自组装法合成聚丙烯酸-b-聚丙烯酸六氟丁酯 周建华, 贺仁妍, 高敬民(97)
基于三(2-羧乙基)异氰尿酸酯与稀土金属的配合物合成、晶体结构及性质 张亚男, 殷海菊, 党蓓君, 等(104)
KH-570 改性纳米 SiO ₂ 及其在外墙涂料中的应用研究 杨晓武, 李 鑫, 陈洪伟, 等(111)
活性炭三维电极-电吸附降解炼油废水	宋诗稳, 羽 磊, 甄延忠, 等(116)
· 生命科学与工程 ·	
枣酒的澄清及酒体稳定性与电导率相关性研究	杨 辉, 杨文英, 王正宇, 等(121)
卵清蛋白水解及抗氧化肽制备工艺研究	薛海燕, 王战勇, 宋宏新, 等(126)
土豆切片热风冷冻联合干燥工艺研究	徐英英, 赵 哲, 袁月定, 等(132)
低分子肝素钠集束化护理预防危重症患者深静脉血栓的临床药学研究 潘世丽, 周 红, 梁承远(138)
· 机械工程 ·	
广义质量替代的曲柄群机构动平衡	刘言松, 曹巨江(142)
太阳能组合干燥系统主体设备的设计与分析	王文茹, 董继先, 李 靖(146)
· 电气工程与信息技术 ·	
基于改进型双二阶广义积分器的软件锁相环实现	孟彦京, 吴 辉, 王素娥(151)
基于扰动观察法结合模糊控制法 MPPT 控制策略研究 康家玉, 周 猛, 王素娥, 等(156)
基于 BP 神经网络的地表水污染指标短期预测分析	郑 昊, 薛惠锋, 冯海涛(161)
基于小波分析的雾霾天气分析与预测	杨文光, 林连海, 田立勤(166)
· 物理与数学科学 ·	
周期三对角 Toeplitz 矩阵的求逆算法及其稳定性	蔺小林, 蔺彦玲(171)
矩阵方程 $AX=B, XC=D$ 的 (M,N) -反对称解	刘 巍, 王柏育(175)



CONTENTS

Effect of hydrogen bond cooperativity on Metal-Organic Frameworks modified paper	1
..... ZHANG Mei-yun, YANG Qiang, SONG Shun-xi	
Alkaline and xylanase pretreatment in the preparation of cellulose-silver composites	6
..... XU Yong-jian, XU Yang, LIU Zhen, et al	
Study on the strengthening performance of modified starch acetate with melamine formaldehyde resin	12
..... WANG Jian, CHEN Wei, QU Ji-shuang, et al	
A preliminary study on cellulose microfibril preparation by high pressure homogenizer with enzymatic pretreatment	16
..... WANG Zhi-jie, KANG Yan, WANG Zhuan, et al	
Effects of alkaline pretreatment enhanced by additives on the enzymatic saccharification of corn straw	22
..... CHI Cong-cong, LIU Mi, LAI Xian, et al	
Study on microstructure and reactivity of moso bamboo with dilute acid pretreatment	28
..... LOU Rui, ZHANG An-long, SUN Wang-sheng, et al	
Study on the down dyeing process	32
..... QIANG Tao-tao, ZHAO Jing, LI Juan, et al	
Preparation and multiferroic properties research of BiFeO ₃ /CoFe ₂ O ₄ thin films	37
..... TAN Guo-qiang, YUE Zhong-wei, XIA Ao, et al	
Hydrothermal synthesis and luminescence properties of Ba ₃ Y(BO ₃) ₃ :Eu ³⁺	42
..... SHI Yong-sheng, JIANG Jia-min, ZHOU Cui-cui	
Effect of pH value on photocatalytic property of LaMnO ₃ powder	46
..... LI Jun-qi, LI Wei-jie, HE Xuan-meng, et al	
Corrosion behavior of Ti ₂ AlN powders under hydrothermal conditions in acid solutions	51
..... LIU Yi, ZHANG Li-li, LI Ying-xin, et al	
Determination of hydrogen peroxide using a modified electrode composed of Co(OH) ₂ loaded on the reduced graphene and overoxidized polypyrrole film	55
..... QIAO Jin-li, GAO Xiao-ling, XU Na, et al	
Mechanism of reinforcing and toughening cement-based composites by graphene oxide	60
..... ZHAO Hai-feng, LV Sheng-hua, DENG Li-juan	
Effects of methyl methacrylate (MMA)/2-Ethylhexyl acrylate (EHA) on properties of waterborne acrylic/alkyd resin	65
..... SHEN Yi-ding, JIA Gui-yu, FEI Gui-qiang, et al	
Synthesis and application properties of phosphate trisiloxane surfactants	71
..... HUANG Liang-xian, LI Shun-qin, LI Ting, et al	
Synthesis and properties of two-component waterborne acrylic resin coatings for automobiles	76
..... LAI Shui-li, WANG Jing-li, YU Jin-feng	

Synthesis of polycarboxylate superplasticizer at room temperature and mechanism research of Montmorillonite with superplasticizer	ZHANG Guang-hua , HE Zhi-qin , WANG Rui , et al (82)
Synthesis and properties of waterborne nitrocellulose emulsion modified by acrylic resin	SU Xiu-xia , ZHAO Qing-xiao , SONG Jie , et al (87)
Study on preparation of diesel-based nanoparticle emulsion and performance of water plugging	LI Gang-hui , FAN Meng-meng , WANG Ting-ting , et al (92)
Polymerization-induced self-assembly of poly(acrylic acid)-b-poly (hexafluorobutyl acrylate) via RAFT emulsion polymerization	ZHOU Jian-hua , HE Ren-yan , GAO Jing-min (97)
Synthesis,crystal structures and properties of lanthanide-coordination polymers based on tris(2-carboxy-ethyl) isocyanurate	ZHANG Ya-nan , YIN Hai-ju , DANG Bei-jun , et al (104)
The study on exterior latex paint of modified nano-SiO ₂ with KH-570	YANG Xiao-wu , LI-Xin , CHEN Hong-wei , et al (111)
Electrosorption degradation of oil refinery waste-water by active carbon three-dimensional electrode	SONG Shi-wen , YU Lei , ZHEN Yan-zhong , et al (116)
Study of clarification and the relationship between the stability and the electrical conductivity of jujube wine	YANG Hui , YANG Wen-ying , WANG Zheng-yu , et al (121)
Preparation and antioxidant activity of peptides derived from ovalbumin	XUE Hai-yan , WANG Zhan-yong , SONG Hong-xin , et al (126)
Experiments on drying of potato slices by combination of hot-air and vacuum freeze	XU Ying-ying , ZHAO Zhe , YUAN Yue-ding , et al (132)
Clinical pharmacy study of cluster therapy plus heparin applied on the treatment of deep venous thrombosis among severe patients	PAN Shi-li , ZHOU Hong , LIANG Cheng-yuan (138)
Dynamic balancing of crank group mechanism based on generalized mass substitution	LIU Yan-song , CAO Ju-jiang (142)
The design and analysis of the main equipment in combination of solar drying system	WANG Wen-ru , DONG Ji-xian , LI Jing (146)
Realization of SPLN based on improved double second order generalized integrator	MENG Yan-jing , WU Hui , WANG Su-e (151)
The research of MPPT control strategy based on the P&O method combined with fuzzy control method	KANG Jia-yu , ZHOU Meng , WANG Su-e , et al (156)
Pollution index of surface water predicting analysis based on BP neural network	ZHENG Hao , XUE Hui-feng , FENG Hai-tao (161)
The haze weather analysis and prediction based on the wavelet analysis	YANG Wen-guang , LIN Lian-hai , TIAN Li-qin (166)
An algorithm for computing the inverse of a periodic tridiagonal toeplitz matrix and the steadiness	LIN Xiao-lin , LIN Yan-ling (171)
The (M,N)-antisymmetric solutions of the matrix equations AX=B, XC=D	LIU Wei , WANG Bai-yu (175)