



目 次

· 轻工技术与工程 ·

- 复合涂层改善对位芳纶纸亲水性能的研究 赵永生, 司联蒙, 陆赵情, 等(1)
- HZSM-5 催化作用下纤维二糖的热裂解规律 王文亮, 韩 俊, 时宇杰, 等(5)
- 相容剂对合成纤维纸热压性能的改善 张素凤, 雷 丹, 徐永射, 等(10)
- 酶-碱结合法提纯豆渣纤维及其特性表征 李佩燚, 侯青青, 李新平, 等(16)
- 响应面法优化芳纶纤维表面原位合成纳米 SiO_2 粒径工艺的研究
..... 胡文静, 陆赵情, 谢 璠(22)
- 纤维素接枝甲基丙烯酸甲酯复合吸油材料的制备与性能 王 建, 党 苗(29)
- 电催化氧化去除水中低浓度氨氮的研究 王家宏, 王 思, 童新豪(34)
- PAN/Na-MMT 复合纳米纤维膜的制备及其对 Cr^{3+} 吸附的研究
..... 张 静, 薛朝华, 侯文涛, 等(39)

· 材料科学与工程 ·

- 铌酸钾钠/铁酸钴层状磁电复合材料的制备及其性能 杨海波, 孙 创, 张锦涛(47)
- 硅胶固载/N、S 共掺 TiO_2 光催化剂的表征与性能 张超武, 王夏云, 张利娜, 等(53)
- 基于 Ti/Al/ TiC 体系的热爆反应低温快速合成 Ti_2AlC 陶瓷
..... 刘 毅, 李莹欣, 张梨梨, 等(61)
- 三步煅烧制备 $\text{Sr}_2\text{SiO}_4 : 0.03\text{Eu}^{3+}$ 基荧光粉及其发光性能的研究
..... 史永胜, 石景俊, 陈红国, 等(65)
- 多孔钛表面羟基磷灰石钙磷涂层的制备及生物活性的研究
..... 杨立军, 施 兰, 闫程程, 等(71)
- 碳纤维的表面改性及羟基磷灰石涂层的制备 张 黎, 赵雪妮, 王旭东, 等(77)
- 玄武岩纤维长度对麦秸秆/PBS 发泡复合材料力学性能的影响
..... 于 旻, 党 哲, 葛正浩, 等(82)

• 化学与化学工程 •

包覆型滑爽硅微粉的制备与表征	安秋凤, 郭晓晓, 李晓璐, 等(86)
聚苯胺/纳米镍复合材料的制备及屏蔽性能	李小瑞, 王瑞芳, 费贵强, 等(92)
硅氧烷改性二苯乙烯型荧光增白剂的合成与性能研究	张光华, 卢玉群, 郭明媛, 等(97)
不同软硬度比值下酮肼交联聚氨酯丙烯酸酯材料的原位聚合与性能	费贵强, 杨小芳, 王海花, 等(104)
K 负载的 Co 基水滑石基氧化物用于碳烟和氮氧化物同时催化消除的研究	代方方, 郭 睿, 刘思玲, 等(111)
单体结构对酶促合成脂肪族聚酯聚合度的影响	李成涛, 张 敏, 赵 莹(117)
P(BMA/2-EHM/St)高吸油树脂的制备及性能研究	杨军胜, 关 悦, 张 昭, 等(122)

• 生命科学与工程 •

核桃分离蛋白溶解性、乳化性影响因素研究	易建华, 曹 灿, 朱振宝(128)
牛羊乳 α -酪蛋白的 B 细胞抗原表位预测及免疫反应性分析	薛海燕, 韩 波, 李 珊, 等(133)
苹果渣浸提液乳酸发酵剂的研究	杨 辉, 闫晓哲, 蒲鹏飞, 等(139)
短短芽孢杆菌 M01 产抗菌物质工艺条件优化及其主要抑菌成分探究	王忠忠, 龚国利(145)
维生素 C 口腔崩解片的处方筛选研究	杨文娟, 董洋洋, 潘美玲, 等(151)

• 机械、电气工程与信息技术 •

一种圆形物体定位算法及在齿轮测量中的应用	卢 军, 雷思鸣(156)
无刷直流电机变论域模糊 PID 控制系统的研究与仿真	李 艳, 李可可, 张孝杰(162)
基于 PID 神经网络的单抽汽轮机解耦分析	李明辉, 云卫涛, 张孝杰(168)
储能型光伏发电系统中蓄电池充电控制策略研究	孟彦京, 贾娟娟, 吴 辉(173)
面向物联网系统历史数据服务的设计与实现	张玉杰, 张婷婷(178)
基于矢量控制的果套自动分离机控制系统设计	宁 铎, 韩雨航(184)

• 物理与数学科学 •

机械波对脆性材料断裂的作用	刘建科, 张 诚, 王 腾, 等(189)
史密斯经济增长与货币政策综合模型的稳定性分析	蔺小林, 李小敏(194)



CONTENTS

Study on improving the hydrophilic properties of para-aramid paper by hybrid coating	
.....	ZHAO Yong-sheng, SI Lian-meng, LU Zhao-qing, et al(1)
Catalytic pyrolysis of cellobiose using HZSM-5	
.....	WANG Wen-liang, HAN Jun, SHI Yu-jie, et al(5)
Hot pressing performance enhancement of paper-based composites from with mixed synthetic fiber with compatibility agent	
.....	ZHANG Su-feng, LEI Dan, XU Yong-she, et al(10)
Preparation and characterization of cellulose from soybean dregs by alkali treatment and protease hydrolysis	
.....	LI Pei-yi, HOU Qing-qing, LI Xin-ping, et al(16)
Study on nanosize of nano-SiO ₂ in-situ synthesized onto para-aramid chopped fibers based on response surface methodology	
.....	HU Wen-jing, LU Zhao-qing, XIE Fan(22)
Preparation and performance of cellulose-g-poly methyl methacrylate composite oil absorption material	
.....	WANG Jian, DANG Miao(29)
Removal of low concentration ammonia nitrogen from wastewater by electrocatalytic oxidation	
.....	WANG Jia-hong, WANG Si, TONG Xin-hao(34)
Study on the preparation of PAN/Na-MMT composite nanofibers membrane and the adsorption characteristics of Cr ³⁺ in the wastewater	
.....	ZHANG Jing, XUE Chao-hua, HOU Wen-tao, et al(39)
The synthesis and properties of potassium sodium niobate based layered magnetoelectric composite material	
.....	YANG Hai-bo, SUN Chuang, ZHANG Jin-tao(47)
Characterization and photocatalytic performance of silicon carrier/N,S codoped TiO ₂	
.....	ZHANG Chao-wu, WANG Xia-yun, ZHANG Li-na, et al(53)
Rapid synthesis of Ti ₂ AlC ceramic through thermal explosion reactions of Ti/Al/TiC powder mixtures	
.....	LIU Yi, LI Ying-xin, ZHANG Li-li, et al(61)
Study on the luminescence property of Sr ₂ SiO ₄ : 0.03Eu ³⁺ phosphors by three-step calcination solid-state method	
.....	SHI Yong-sheng, SHI Jing-jun, CHEN Hong-guo, et al(65)
Preparation and research of bioactive activity of hydroxyapatite calcium phosphate coating on porous titanium surface	
.....	YANG Li-jun, SHI Lan, YAN Cheng-cheng, et al(71)
Surface modification of carbon fiber and preparation of hydroxyapatite coating	
.....	ZHANG Li, ZHAO Xue-ni, WANG Xu-dong, et al(77)
Effect of basalt fiber length on mechanical properties of wheat straw/PBS foam composites	
.....	YU Min, DANG Zhe, GE Zheng-hao, et al(82)
Preparation and characterization of smooth coated silicon powder preparation	
.....	AN Qiu-feng, GUO Xiao-xiao, LI Xiao-lu, et al(86)

Preparation and shielding properties of polyaniline/nano nickel composite materials	LI Xiao-rui , WANG Rui-fang , FEI Gui-qiang , et al (92)
Synthesis and properties of novel stilbene-alkoxysilane fluorescent brighteners	ZHANG Guang-hua , LU Yu-qun , GUO Ming-yuan , et al (97)
In-situ polymerization and properties of keto-hydrazine crosslinked polyurethane acrylate with different soft/hard segment ratio	FEI Gui-qiang , YANG Xiao-fang , WANG Hai-hua , et al (104)
Performance of K supported Co-based hydrotalcite-derived mixed oxide catalysts used for simultaneous NO _x -soot removal	DAI Fang-fang , GUO Rui , LIU Si-ling , et al (111)
Effects of monomer structure on the polymerization degree of enzymatic catalysis synthesis aliphatic polyesters	LI Cheng-tao , ZHANG Min , ZHAO Ying (117)
Preparation of poly (BMA / 2-EHM/St)high oil-absorbing resin and study on its oil-absorption properties	YANG Jun-sheng , GUAN Yue , ZHANG Zhao , et al (122)
Study on the influencing factors of solubility and emulsification of walnut protein isolates	YI Jian-hua , CAO Can , ZHU Zhen-bao (128)
Prediction of B cell antigen epitopes of α -casein cow and goat milk and its immunoreactivity identification	XUE Hai-yan , HAN Bo , LI Shan , et al (133)
Study on lactic acid starter of apple pomace extract fermentation	YANG Hui , YAN Xiao-zhe , PU Peng-fei , et al (139)
Optimization of technological conditions for production antibacterial substances from <i>Brevibacillus brevis</i> M01 and investigation of the main antibacterial components	WANG Zhong-zhong , GONG Guo-li (145)
Study on formulations screening of vitamin C orally disintegrating tablets	YANG Wen-juan , DONG Yang-yang , PAN Mei-ling , et al (151)
A algorithm for locating circular objects and its application in gear measurement	LU Jun , LEI Si-ming (156)
Research and simulation of variable universe fuzzy PID control system for brushless DC motor	LI Yan , LI Ke-ke , ZHANG Xiao-jie , et al (162)
Single extraction steam turbine based on PID neural network decoupling analysis	LI Ming-hui , YUN Wei-tao , ZHANG Xiao-jie (168)
Research on charging control strategy for batteries of photovoltaic power generation system with storage	MENG Yan-jing , JIA Juan-juan , WU Hui (173)
Design and implementation of historical data service for internet of things system	ZHANG Yu-jie , ZHANG Ting-ting (178)
The vector control based on automatic fruit set separation device control system design	NING Duo , HAN Yu-hang (184)
Effect of mechanical waves on fracture of brittle materials	LIU Jian-ke , ZHANG Cheng , WANG Teng , et al (189)
The stability analysis of smith's economic growth and monetary policy	LIN Xiao-lin , LI Xiao-min (194)