



## 目 次

### • 轻工技术与工程 •

- 有机复合膨润土助留助滤剂的制备与应用 ..... 李金宝, 余小藏, 夏新兴(1)  
粉煤灰基硅酸钙-细小纤维-CPAM 共絮聚改善加填纸张物理性能的研究 .....

- ..... 宋顺喜, 郝 宁, 张美云, 等(6)  
不同打浆设备对漂白针叶木浆纤维细纤维化程度的影响 ..... 徐永建, 王家泳, 闫 瑛(10)  
聚酯纤维与植物纤维协同造纸性能研究 ..... 张素风, 蒋莹莹, 李鹏辉(15)  
纳米氧化石墨烯与铬鞣剂配合物鞣制性能研究 ..... 吕生华, 崔亚亚, 周庆芳, 等(19)  
含氟聚丙烯酸酯细乳液的制备及性能 ..... 张文博, 马建中, 高党鸽, 等(23)  
聚氨酯泡沫固定化菌脱色偶氮染料废水的研究 ..... 师 奇, 朱 超, 杨 冰(27)

### • 材料科学与工程 •

- 热处理对铝基可降解合金微观组织及腐蚀行为的影响 .....  
..... 朱建锋, 姜 涛, 胡相君, 等(33)

- 六方氮化硼纳米片的制备 ..... 李军奇, 周 健, 郝红娟, 等(40)  
高岭土改性聚乳酸基复合材料的制备及性能 ..... 樊国栋, 刘钰维, 管园园, 等(44)

- 氧化石墨烯改性磁性微粒及其纸张性能研究 ..... 郭宏伟, 莫祖学, 沈一丁, 等(48)  
工艺参数对熔盐法制备  $\text{Bi}_4\text{Si}_3\text{O}_{12}$  粉体的影响 ..... 江红涛, 邬金芳(53)

- 不同碳源复合钨酸铋光催化剂的制备与性能 ..... 刘丁菡, 黄剑锋, 曹丽云, 等(57)  
采用干法造粒工艺制备轻质陶瓷砖的研究 ..... 张博烨, 黄剑锋, 陶晓文, 等(61)

### • 化学与化学工程 •

- R基团搜索技术用于2-氨基-6-磺酰苯甲腈衍生物的分子设计 .....  
..... 全建波, 白 敏, 赵 翔, 等(67)  
纳米  $\text{SiO}_2$  改性含氟聚氨酯-聚丙烯酸酯分散液的制备及性能 ..... 李小瑞, 陈洪伟, 李培枝, 等(72)

一种阴-非离子型聚氨酯表面活性剂的制备及性能	强西怀, 孙 哲, 陈 渭, 等	(77)
聚偏氟乙烯/端羟基多壁碳纳米管共混体系的结晶	王海军, 李金祥, 王学川	(82)
三重氢键作用力构筑的 4-(1,2,4-三氮唑-亚甲基)苯甲酸超分子聚合物的合成与晶体结构	张亚男, 党禧君, 李运涛, 等	(88)
3-酰胺基喹唑啉酮类化合物合成与环氧合酶-2 分子对接抗炎活性预测研究	张 金, 刘 佳, 马养民, 等	(94)
自乳化全氟烷基阳离子聚丙烯酸酯乳液的制备及涂膜性能	李培枝, 刘晨迪, 赵会芳, 等	(99)
低渗透压力敏感油藏储量有效动用规律研究	苏彦春, 陈民锋	(104)
注二氧化碳试井三区复合渗流模型研究	苏 坤, 龙胜祥, 廖新维, 等	(111)
<b>• 生命科学与工程 •</b>		
酶解桃仁分离蛋白制备肾素和 ACE 双重抑制肽的工艺研究	朱振宝, 杨 梅, 易建华, 等	(116)
微波辅助提取冠突散囊菌黄色素工艺研究	吕嘉枥, 李文娟	(121)
八月瓜籽油的超声波辅助提取及其理化性质	杨 辉, 李朝阁	(127)
影响乳酸菌液芯微囊发酵性能的制备工艺条件研究	贺小贤, 宇文亚焕, 尹 宁, 等	(132)
运动发酵单胞菌的筛选与鉴定	龚国利, 史政豪, 张 甜, 等	(138)
<b>• 机械工程 •</b>		
大枣去核设备的设计及试验分析	文怀兴, 周改梅, 俞祖俊	(142)
高速工业平缝机送布机构和旋梭机构模块化设计研究	高 田, 曹巨江	(148)
<b>• 电气工程与信息技术 •</b>		
数字控制谐振变换器高轻载效率的研究	史永胜, 高丹阳, 李晓明, 等	(152)
一种基于 LCL 型滤波器的优化方法	刘建科, 于克锐	(158)
基于 T-S 模型模糊神经网络的 PM <sub>2.5</sub> 质量浓度预测	杨 云, 付彦丽	(162)
大时滞对象分数阶 PI <sup>λ</sup> 控制	阮士涛, 郑恩让	(167)
<b>• 物理与数学科学 •</b>		
一类网络化串级控制系统的预测控制	高鹏娥, 李庆奎	(172)
基于混沌三次指数平滑模型的 CPI 预测研究	杨文光, 严 哲, 于 健	(179)



## CONTENTS

- Preparation and application of organobentonite microbeads as retention and drainage aid ..... *LI Jin-bao, YU Xiao-cang, XIA Xin-xing* (1)
- Improvement of the physical properties of FACS filled paper by co-flocculation of FACS-fines-CPAM ..... *SONG Shun-xi, HAO Ning, ZHANG Mei-yun, et al* (6)
- Effects of different beating equipment on the degree of bleached softwood kraft pulp fiber's fibrosis ..... *XU Yong-jian, WANG Jia-yong, YAN Ying* (10)
- Research on performance of polyester fiber and plant fiber together papermaking ..... *ZHANG Su-feng, JIANG Ying-ying, LI Peng-hui* (15)
- Study on tanning properties of complex of graphene oxide and chrome tanning agent ..... *LV Sheng-hua, CUI Ya-ya, ZHOU Qing-fang, et al* (19)
- Synthesis and properties of fluorine-containing polyacrylate miniemulsion ..... *ZHANG Wen-bo, MA Jian-zhong, GAO Dang-ge, et al* (23)
- Decolorization of azo dyes by polyurethane foam immobilized bacteria ..... *SHI Qi, ZHU Chao, YANG Bing* (27)
- Influence of heat treatment on microstructure and corrosion behavior of aluminum degradable alloy ..... *ZHU Jian-feng, JIANG Tao, HU Xiang-jun, et al* (33)
- Preparation of hexagonal boron nitride nanosheet ..... *LI Jun-qi, Zhou Jian, HAO Hong-juan, et al* (40)
- Preparation and properties of polylactide composite modified by kaolin ..... *FAN Guo-dong, LIU Yu-wei, GUAN Yuan-yuan, et al* (44)
- Properties of paper with magnetic particles modified by graphene oxide ..... *GUO Hong-wei, MO Zu-xue, SHEN Yi-ding, et al* (48)
- Effects of process parameters on  $\text{Bi}_4\text{Si}_3\text{O}_{12}$  powders synthesized by molten salt method ..... *JIANG Hong-tao, WU Jin-fang* (53)
- Preparation and properties of different biomass carbon composite with  $\text{Bi}_2\text{WO}_6$  ..... *LIU Ding-han, HUANG Jian-feng, CAO Li-yun, et al* (57)
- Research on preparation of lightweight foamed ceramic tile by dry granulation process ..... *ZHANG Bo-ye, HUANG Jian-feng, TAO Xiao-wen, et al* (61)
- Application of an R-group search technology into molecular design of 2-amino-6-arylsulfonylbenzonitrile derivatives ..... *TONG Jian-bo, BAI Min, ZHAO Xiang, et al* (67)
- Preparation and properties of waterborne fluorinated polyurethane-acrylate by nano- $\text{SiO}_2$  ..... *LI Xiao-rui, CHEN Hong-wei, LI Pei-zhi, et al* (72)

Preparation and properties of anionic-nonionic polyurethane surfactant .....	QIANG Xi-huai , SUN Zhe , CHEN Wei , et al(77)
Crystalline morphology and phase transformation behavior of poly(vinylidene fluoride)/hydroxy-multi-walled carbon nanotubes blends .....	WANG Hai-jun , LI Jin-xiang , WANG Xue-chuan(82)
Syntheses and crystal structures of polymers 4-(1,2,4-triazol-yl) methyl-benzoic acid based on triple hydrogen bonds interactions .....	ZHANG Ya-nan , DANG Bei-jun , LI Yun-tao , et al(88)
Synthesis and molecular docking analysis of 3-acylaminquinazolin-4(1H)-ones as potential anti-inflammatory agents .....	ZHANG Jin , LIU Jia , MA Yang-min , et al(94)
Preparation and film properties of self-emulsified perfluoroalkyl cationic polyacrylate emulsion .....	LI Pei-zhi , LIU Chen-di , ZHAO Hui-fang , et al(99)
Study on effective drive mechanism in pressure-sensitive low permeability reservoir .....	SU Yan-chun , CHEN Min-feng(104)
Research on three-region well testing model for CO <sub>2</sub> injection well .....	SU Kun , LONG Sheng-xiang , LIAO Xin-wei , et al(111)
Study on enzymatic hydrolysis conditions for the preparation of dual rennin and ACE inhibitory peptide from peach kernel protein isolate .....	ZHU Zhen-bao , YANG Mei , YI Jian-hua , et al(116)
Study on microwave-assisted extraction technology of pigments from <i>Eurotium cristatum</i> .....	LV Jia-li , LI Wen-juan(121)
Ultrasonic extraction and physicochemical properties of <i>Akebia trifoliate</i> seed oil .....	YANG Hui , LI Chao-ge(127)
The liquid core microcapsules preparation conditions affect on <i>Lactobacillus</i> fermentation .....	HE Xiao-xian , YUWEN Ya-huan , YIN Ning , et al(132)
Isolation and identification of zymomonas mobilis strain .....	GONG Guo-li , SHI Zheng-hao , ZHANG Tian , et al(138)
Design and experimental study of a pitting device for jujube .....	WEN Huai-xing , ZHOU Gai-mei , YU Zu-jun(142)
Research on modular design of high speed industrial flat sewing machine's feeding mechanism and rotary shuttle mechanism .....	GAO Tian , CAO Ju-jiang(148)
Research of resonant converter based on digital control with high light load efficiency .....	SHI Yong-sheng , GAO Dan-yang , LI Xiao-ming , et al(152)
An optimization method based on LCL filter .....	LIU Jian-ke , YU Ke-rui(158)
The prediction of mass concentration of PM2.5 based on T-S fuzzy neural network .....	YANG Yun , FU Yan-li(162)
Tuning of fractional PI <sup>λ</sup> controller for long time delay system .....	RUAN Shi-tao , ZHENG En-rang(167)
Predictive control for a class of networked cascade control systems .....	GAO Peng-e , LI Qing-kui(172)
CPI forecasting based on chaotic cubic exponential smoothing model .....	YANG Wen-guang , YAN Zhe , YU Jian(179)