



## 目 次

### · 轻工技术与工程 ·

- HPLC 法检测纸张中的荧光增白剂 VBL ..... 李志健, 苗 玉, 杜 飞, 等(1)
- 阳离子角蛋白的制备及用于皮革废水絮凝性能研究 ..... 王鸿儒, 王倩倩(7)
- 超支化聚氨酯/聚氨酯共混膜的制备及其性能研究 ..... 任龙芳, 陈 婷, 强涛涛, 等(11)
- 四元混合油脂氧化亚硫酸化及其产物加脂性能 ..... 强西怀, 黄启恒, 陈 渭, 等(17)
- 湿法 PVDF 多孔膜的制备 ..... 王海军, 雷乐乐, 强西怀, 等(23)
- 多孔锆改性蒙脱土的制备及吸铬性能研究 ..... 马宏瑞, 郭颖艳(28)
- 黄土粘土矿物对氯吡硫磷的吸附机制初探 ..... 范春辉, 周 冉, 高雅琳, 等(32)
- 摇摆鞋和慢跑鞋对足底压力分布影响的对比研究 ..... 汤运启, 秦 蕾, 徐娇萍, 等(37)

### · 材料科学与工程 ·

- 贵金属银选择性修饰高能晶面暴露二氧化钛光催化剂的制备及性能 .....  
..... 刘 辉, 刘婷婷, 董晓楠(40)
- 镁含量对 Al-Ga-Sn-Mg 合金可溶解性能的影响 ..... 朱建锋, 潘博炜, 苟永妮, 等(46)
- Mg-Al 合金中低温原位合成 SiC 颗粒 ..... 王 芬, 赵渊博, 朱建锋, 等(52)
- 不同 pH 对  $\text{NH}_4\text{V}_3\text{O}_8$  形貌及电化学性能的影响 ..... 黄剑锋, 乔晓宁, 许占位, 等(57)
- 直接熔融缩聚法制备聚乳酸/高岭土复合材料及其性能研究 .....  
..... 樊国栋, 管园园, 刘钰维, 等(62)
- 碳纳米管在离子液体/有机溶剂混合电解液中的电化学性能研究 .....  
..... 张利锋, 杜素青, 宋巧兰, 等(67)

### · 化学与化学工程 ·

- 模拟苯直接氧化制备苯酚反应中苯和苯酚的吸附 ..... 马养民, 任喜迎, 王伟涛, 等(72)
- PVA 共混改性磺酸盐型紫外光固化水性聚氨酯的制备及性能 .....  
..... 李小瑞, 王 东, 费贵强, 等(77)

水基聚氨酯丙烯酸酯/氧化石墨烯复合乳液的制备与表征 .....	费贵强,王 佼,王海花,等(82)
磷化锡空心球的制备、表征及其性能研究 .....	刘淑玲,张红哲,仝建波(86)
粉煤灰/煤矸石纤维的改性及其植物纤维复合配抄纸性能研究 .....	苏秀霞,吕檬夷,巨保中,等(90)
高固含量改性 PAE 湿强剂的制备及性能研究 .....	沈一丁,刘 艳,费贵强,等(95)
低渗透储层非线性渗流压力传播规律 .....	张琪琛,陈民锋,陈 璐,等(102)
裂缝性低渗油藏可动凝胶流动特性分析与渗流模型建立 ...	安淑萍,郑黎明,赵 青(107)
· 生命科学与工程 ·	
不同提取方法对核桃壳色素的抗氧化性影响 .....	易建华,王留续,董文宾,等(114)
10 株益生菌益生特性的比较研究 .....	吕嘉枋,闫亚梅,王霄鹏,等(118)
集胞藻 6803 基因组 DNA 提取方法的比较 .....	陈雪峰,焦文冬,刘 宁,等(123)
冠突散囊菌液体发酵工艺的研究 .....	李文娟,吕嘉枋,闫亚梅,等(128)
新疆核桃分心木总皂苷和总黄酮的体外抗氧化活性 .....	令狐晨,谢姆西努尔·阿卜来提,阿依吐伦·斯马义(134)
· 机械工程 ·	
星载多轴联动系统载荷特性分析 .....	赵志明(138)
前悬架刚柔耦合建模及仿真分析 .....	张小珍,沈嵘枫,周成军,等(143)
· 电气工程与信息技术 ·	
基于 DSP 的纸机滚动轴承故障诊断 .....	郭文强,夏令君,齐 璐,等(148)
一种蓄电池充放电效率测试系统的设计 .....	孟彦京,白 冲,王素娥(154)
一种基于分层 AP 的视频关键帧提取方法研究 .....	党宏社,白 梅(159)
基于 ZigBee 无线网络的养殖场信息监测系统设计 .....	李 颀,冯宇谦,周晓岚(164)
· 物理与数学科学 ·	
具有周期传染率的 SVEIR 传染病模型的定性分析 .....	杜燕飞,曹 慧(171)
P2P 在线借贷平台的定价研究 .....	芦彩梅,高小俊(175)



## CONTENTS

Determination of fluorescent brightener VBL in papers by HPLC method .....	LI Zhi-jian, MIAO Yu, DU Fei, et al(1)
Synthesis of cationic keratin and its flocculating performance for dyeing and fatliquoring wastewater .....	WANG Hong-ru, WANG Qian-qian(7)
Study on the preparation and properties of HBPU/PU blend films .....	REN Long-fang, CHEN Ting, QIANG Tao-tao, et al(11)
The oxidate-sulfite process of the oil system of mixed four oil and fatliquoring performance of its reaction product .....	QIANG Xi-huai, HUANG Qi-heng, CHEN Wei, et al(17)
Preparation of wet porous PVDF membrane .....	WANG Hai-jun, LEI Le-le, QIANG Xi-huai, et al(23)
Preparation and adsorption for Cr(Ⅲ) of porous Zr modified MMT .....	MA Hong-rui, GUO Ying-yan(28)
Adsorption mechanism of chlorpyrifos on clay minerals derived from loess .....	FAN Chun-hui, ZHOU Ran, GAO Ya-lin, et al(32)
Comparative study of plantar pressure distribution on unstable shoes and running shoes .....	TANG Yun-qi, QIN Lei, XU Jiao-ping, et al(37)
Preparation and photocatalytic activity of noble metal Ag selectively loading on high energy facet of TiO <sub>2</sub> single crystal .....	LIU Hui, LIU Ting-ting, DONG Xiao-nan(40)
Effect of Mg contents on the dissolving properties of Al-Ga-Mg-Sn alloy .....	ZHU Jian-feng, PAN Bo-wei, GOU Yong-ni, et al(46)
Synthesize SiC particles by low temperature in situ reaction method in Mg-Al alloys .....	WANG Fen, ZHAO Yuan-bo, ZHU Jian-feng, et al(52)
Influences of pH on the morphology and electrochemical performance of NH <sub>4</sub> V <sub>3</sub> O <sub>8</sub> .....	HUANG Jian-feng, QIAO Xiao-ning, XU Zhan-wei, et al(57)
Properties and preparation of polylactide/kaolin composites by direct melt polymerization .....	FAN Guo-dong, GUAN Yuan-yuan, LIU Yu-wei, et al(62)
Electrochemical properties of carbon nanotubes in ionic liquids/ organic solvent mixed electrolytes .....	ZHANG Li-feng, DU Su-qing, SONG Qiao-lan, et al(67)
The adsorption of benzene and phenol under the simulated reaction condition of directly hydroxylation of benzene to phenol .....	MA Yang-min, REN Xi-ying, WANG Wei-tao, et al(72)
Synthesis and characterization of sulphonate type waterborne UV-curable polyurethane modified by poly	

(vinyl alcohol) through blending method .....	LI Xiao-rui, WNAG Dong, FEI Gui-qiang, et al(77)
Preparation and characterization of water-based polyurethane acrylate/graphene oxide composite emul- sion .....	FEI Gui-qiang, WANG Jiao, WANG Hai-hua, et al(82)
Synthesis,characterization and property of Sn <sub>4</sub> P <sub>3</sub> hollow nanospheres .....	..... LIU Shu-ling, ZHANG Hong-zhe, TONG Jian-bo(86)
Research on the performance of fly ash/coal gangue fiber and plant fiber composite paper .....	..... SU Xiu-xia, LV Meng-yi, JU Bao-zhong, et al(90)
Study on preparation and properties of modified wet strength agent PAE with high solid content .....	..... SHEN Yi-ding, LIU Yan, FEI Gui-qiang, et al(95)
Transmission of pressure in low permeability reservoir with non-linear seepage .....	..... ZHANG Qi-chen, CHEN Min-feng, CHEN Lu, et al(102)
Experimental seepage characteristics and mathematic seepage model of flowing gel in low permeability reservoir with natural micro-fractures .....	AN Shu-ping, ZHENG Li-ming, ZHAO Qing(107)
Effects of different extraction methods on antioxidant activity of walnut shell pigments .....	..... YI Jian-hua, WANG Liu-xu, DONG Wen-bin, et al(114)
Comparative study on probiotic properties of 10 strains probiotics .....	..... LV Jia-li, YAN Ya-mei, WANG Xiao-peng, et al(118)
Comparative analysis of different DNA extraction protocols in Synechocystis 6803 .....	..... CHEN Xue-feng, JIAO Wen-dong, LIU Ning, et al(123)
Study on liquid fermentation technology of <i>Eurotium cristatum</i> .....	..... LI Wen-juan, LV Jia-li, YAN Ya-mei, et al(128)
In vitro antioxidant activity of saponins and flavonoids from xinjiang <i>Diaphragma Juglandis Fructus</i> .....	LINGHU Chen, Xmnuer • Abulaiti, Aytulun • Simayil(134)
Research of loading characteristics for satellite-based multi-axis system .....	ZHAO Zhi-ming(138)
Modeling and simulation analysis of front suspension rigid-flexible coupling .....	..... ZHANG Xiao-zhen, SHEN Rong-feng, ZHOU Cheng-jun, et al(143)
DSP based fault diagnosis of rolling bearing for paper-making machine .....	..... GUO Wen-qiang, XIA Ling-jun, QI Lu, et al(148)
Design of a battery charge and discharge efficiency test system .....	..... MENG Yan-jing, BAI Chong, WANG Su-e(154)
Research on video key-frame extraction based on hierarchical affinity propagation clustering .....	..... DANG Hong-she, BAI Mei(159)
Design of information monitoring system based on ZigBee wireless network for breeding farms .....	..... LI Qi, FENG Yu-qian, ZHOU Xiao-lan(164)
Analysis of a SVEIR epidemic model with periodic infection rate .....	DU Yan-fei, CAO Hui(171)
Pricing research of peer to peer online lending .....	LU Cai-mei, GAO Xiao-jun(175)