

## 目 次

## 评论与综述

- 膜转移提取技术在手印显现中的应用进展 ..... 炼 铮,朱蒋琪 (889)  
 生漆的生物学活性与结构修饰研究进展 ..... 吕虎强,李 艳,刘 帅,李东旭,张飞龙 (896)  
 识别磷酸二氢根离子荧光探针的研究进展 ..... 韩冬梨,格根塔娜,杜艳青,额尔敦,王美玲 (905)

## 研究论文

- 基于红外指纹光谱结合判别分析的木器漆种类鉴别研究 ..... 何 亚,王继芬 (918)  
 D- $\pi$ -A 型偶氮苯酚探针对氟离子的比色识别 ..... 宋秀美,余 彪,何清运,席艳杰,韩 冰,冯宗财 (924)  
 碳化温度对 MOFs 基碳材料吸附性能的影响 ..... 张来苹,孙 梦,陈帅军,余小乐,王 炎,罗 鹏,李 丽 (933)  
 电还原铁促进芬顿氧化邻苯二酚的研究 ..... 秦洪伟,王 鑫,闫 彬,连 爽,赵文鹏,尤国红 (941)  
 光谱法研究盐酸法舒地尔-牛血清白蛋白超分子体系 ..... 付 国,胡晓熙,刘幽燕,王 芸,梁彩媚,张艳军 (948)  
 黄精属中两种高异黄酮的理论计算研究 ..... 陈义磊,夏 娜 (956)  
 模板法制备催化剂 PW<sub>12</sub>@Fe-TiO<sub>2</sub> 及其催化氧化脱硫性能 ..... 高洪成,高 爽,吴效楠,薛 伟,于雅潇,马丽雅 (963)  
 基于不同长度烷基侧链的 s-四嗪基聚合物合成及性能研究 ..... 刘海路,彭栗妮 (971)  
 碘化 MSMS 粒子的制备及其在生物质转化中的应用 ..... 张 通,白毓黎,白富栋,廖 莎,薛 冬,彭绍忠,乔 凯 (979)  
 接种量对 MEC 阳极膜形成及胞外聚合物的影响 ..... 郑金柱,李建昌,许坤德,龙宪钢,孙和临,杨思霞,李洪斌 (985)  
 水性聚氨酯结构与胶膜性能的关系 ..... 马心语,徐雪山,曾庆森,侯静宇,王 煦 (993)  
 基于混合官能团配体一维链状 Gd 配位聚合物的合成、晶体结构及性质 ..... 王 欣,陈雅旭,关 磊,王 莹 (999)  
 长链烷氧基苯甲酰基硫脲的阴离子识别应用研究 ..... 籍向东,汪燕飞,安 平,尤兴梅,曹 成 (1007)  
 柠檬酸-硝酸盐法制备 PrSrCoO<sub>4</sub> 类钙钛矿材料及表征 ..... 黄荣洲,郭为民,尹 俊,沈思静,刘新梅,乐志文 (1014)  
 含酰胺键的吡啶双子表面活性剂合成及性能 ..... 王丽艳,武江雷,楼慈涵,杨 佳,段松言,陈 媛 (1022)  
 聚(2-丙烯酰胺基-2-甲基丙磺酸)催化合成缩醛 ..... 代红光,赵志浩,师 兰 (1030)  
 以胶原纤维为隔膜的双电层电容器的性能研究 ..... 徐 恒,王亚平,肖 霄,廖学品,石 碧 (1040)  
 L-脯氨酸催化一锅法合成 4H-吡喃并[2,3-c]吡唑衍生物 ..... 雷英杰,丁 玖,姚庆佳 (1047)  
 N-呋喃酮基碘酰肼的合成与抗肿瘤活性研究 ..... 吴桂贞,陈任宏,杨 凯,刘 海,汪朝阳 (1053)  
 Waddington 反应机理中  $\beta$ -断键反应类动力学研究 ..... 许诗敏,孙晓慧,李永青,王静波,李泽荣 (1060)

## 研究简报

- $\alpha$ -磷酸锆插层复合材料制备及其对 Cs<sup>+</sup>吸附性能的研究 ..... 顾君阳,杜申圳,余钱红,牟婉君 (1067)  
 基于磁性印迹的紫外法测定血液中同型半胱氨酸 ..... 江书庆,信建豪 (1072)  
 海上含聚稠油深度脱水破乳剂研究 ..... 刘少鹏 (1076)  
 基于纳米银的检测黄曲霉毒素免疫传感器研究 ..... 梅 丽,郭柯宇,刘先科,常 波,徐 坤,尚书勇,傅小红 (1083)  
 氮化碳负载 AuPd 纳米催化剂甲酸分解制氢性能 ..... 马尚坤,刘 艳,王少君,崔凤娟,邓庆芳 (1088)

## 新技术与应用

- SB-590885 的合成工艺研究 ..... 黄朋越,朱 雄,赵永利,柴慧芳,赵春深 (1094)  
 4-溴-9-芴酮合成工艺研究 ..... 张成新,王 双,陈佳琦,李善清,孟 烨 (1100)  
 中文目次(封 2) 英文目次(封 3)

# CHEMICAL RESEARCH AND APPLICATION

Vol. 32 NO. 6 June. 2020 Monthly

## Contents

### Reviews and Summary Accounts

- Research progress on application of membrane transfer extraction for fingerprint development ..... LIAN Zheng, ZHU Jiang-qi (889)  
Research advance on biological activity and structural modification of raw lacquer ..... LV Hu-qiang, LI Yan, LIU Shuai, LI Dong-xu, ZHANG Fei-long (896)  
Research progress of fluorescent probes for identifying dihydrogen phosphate ions ..... HAN Dong-li, GE Gen-tana, DU Yan-qing, E Er-dun, WANG Mei-ling (905)

### Academic Papers

- Identification of wood coatings based on infrared fingerprint spectroscopy combined with discriminant analysis ..... HE Ya, WANG Ji-fen (918)  
Colorimetric recognition of D- $\pi$ -A azophenol probe for fluoride anion ..... SONG Xiu-mei, YU Biao, HE Qing-yun, XI Yan-jie, HAN Bing, FENG Zong-cai (924)  
Effect of carbonization temperature on MOFs-carbon adsorption performance ..... ZHANG Lai-ping, SUN Meng, CHENG Shuai-jun, YU Xiao-le, WANG Yan, LUO Peng, LI Li (933)  
Electroreduced iron promotes Fenton oxidation of catechol ..... QIN Hong-wei, WANG Xin, YAN Bin, LIAN Shuang, ZHAO Wen-peng, YOU Guo-hong (941)  
Spectroscopic analysis of the interaction between fasudil hydrochloride and bovine serum albumin as supramolecular system ..... FU Guo, HU Xiao-xi, LIU You-yan, WANG Yun, LIANG Cai-meい, ZHANG Yan-jun (948)  
Theoretical calculation of two homoisoflavones in Polygonatum ..... CHEN Yi-lei, XIA Na (956)  
Preparation of PW<sub>12</sub>@Fe-TiO<sub>2</sub> catalyst by template method and its catalytic oxidative desulfurization performances ..... GAO Hong-cheng, GAO Shuang, WU Xiao-nan, XUE Wei, YU Ya-xiao, MA Li-ya (963)  
Synthesis and properties of s-tetrazinyl polymers with different alkyl side chains ..... LIU Hai-lu, PENG Li-ni (971)  
Preparation of SO<sub>3</sub>H-MSMs and their application in biomass conversion ..... ZHANG Tong, BAI Yu-li, BAI Fu-dong, LIAO Sha, XUE Dong, PENG Shao-zhong, QIAO Kai (979)  
Effect of inoculum size on MEC anodic film formation and extracellular polymer ..... ZHENG Jin-zhu, LI Jian-chang, XU Kun-de, LONG Xian-gang, SUN He-lin, YANG Si-xia, LI Hong bin (985)  
Relationship between waterborne polyurethane structure and film properties ..... MA Xin-yu, XU Xue-shan, ZENG Qing-miao, HOU Jing-yu, WANG Xu (993)  
Synthesis, crystal structure and properties of one-dimensional chain Gd coordination polymer based on the ligand with mix-functional groups ..... WANG Xin, CHEN Ya-xu, GUAN Lei, WANG Ying (999)  
Anions recognition properties of long-chain alkoxy substituted benzoyl thiourea ..... JI Xiang-dong, WANG Yan-fei, AN Ping, YOU Xing-meい, CAO Cheng (1007)  
Preparation of PrSrCoO<sub>4</sub> perovskite-like materials using citric acid-nitrate method and its characterization ..... HUANG Rong-zhou, GUO Wei-min, YIN Jun, SHEN Si-jing, LIU Xin-meい, YUE Zhi-wen (1014)  
Synthesis and properties of pyridine gemini surfactant containing amide bond ..... WANG Li-yan, WU Jiang-lei, LOU Ci-han, YANG Jia, DUAN Song-yan, CHEN Man (1022)  
Synthesis of acetal catalyzed by poly(2-acrylamido-2-methylpropanesulfonic acid) ..... DAI Hong-guang, ZHAO Zhi-hao, SHI Lan (1030)  
Performances investigation of electrical double layer capacitor using collagen fiber membrane as separator ..... XU Heng, WANG Ya-ping, XIAO Xiao, LIAO Xue-pin, SHI Bi (1040)  
L-proline catalyzed one-pot synthesis of 4H-pyrano[2,3-c]pyrazoles ..... LEI Ying-jie, DING Mei, YAO Qing-jia (1047)  
Synthesis and anti-tumor activities of N-furanonyl arylsulfonyl hydrazides derivatives ..... WU Gui-zhen, CHEN Ren-hong, YANG Kai, LIU Hai, WANG Zhao-yang (1053)  
Kinetic study of  $\beta$ -scission reaction class in Waddington reaction mechanism ..... XU Shi-min, SUN Xiao-hui, LI Yong-qing, WANG Jing-bo, LI Ze-rong (1060)

### Research Notes

- Preparation of  $\alpha$ -ZrP composite for adsorption of Cs<sup>+</sup> from aqueous solution ..... GU Jun-yang, DU Shen-zhen, YU Qian-hong, MU Wan-jun (1067)  
Determination of homocysteine in blood by ultraviolet spectrophotometry based on magnetic imprinted materials ..... JIANG Shu-qing, XIN Jian-hao (1072)  
Study on deep dewatering demulsifier for heavy oil containing polymer in offshore oilfield ..... LIU Shao-peng (1076)  
Immunosensor based on nano-silver for aflatoxin B1 detection ..... MEI Li, GUO Ke-ye, LIU Xian-ke, CHANG Bo, XU Kun, SHANG Shu-yong, FU Xiao-hong (1083)  
AuPd nanoparticles supported on graphitic carbon nitride for hydrogen generation from formic acid ..... MA Shang-kun, LIU Yan, WANG Shao-jun, CUI Feng-juan, DENG Qing-fang (1088)

### New Techniques and Application

- Synthetic of SB-590885 ..... HUANG Peng-yue, ZHU Xiong, ZHAO Yong-li, CHAI Hui-fang, ZHAO Chun-shen (1094)  
The Synthesis research of 4-bromo-9H-fluoren-9-one ..... ZHANG Cheng-xin, WANG Shuang, CHEN Jia-qi, LI Shan-qing, MENG Ye (1100)