

ISSN 1001 - 9677

CN44 - 1228/TQ



扫码关注

广州化工

GUANGZHOU CHEMICAL INDUSTRY

- 《中国学术期刊综合评价数据库》统计源刊
- 《中国期刊全文数据库》全文收录期刊
- 《中国核心期刊(遴选)数据库》全文收录期刊
- 美国《化学文摘》(CA)重点收录期刊

第19期
2019年10月
(上半月)
第47卷



BRILLIANT

深圳市博瑞兰特科技有限公司
<http://www.brilliant-i.com>

多彩化工 • 专业视角

特别报道

2019第十四届中国及亚太区乙醇上下游高峰论坛
千万吨级燃料乙醇产业越走越近
化工易2.0升级 首发惊艳论坛

第十五届中国国际石油和化工水处理技术及装备展览会
因需而变 化工更美

工业控制仪器仪表 提供与服务商

· 智能温度补偿流量计 ·

DZK-J 系列液体涡轮流量计

各项性能指标超前，是理想的流量计之一



ISSN 1001-9677



19>

9 771001 967197

主办：

广州化工研究设计院
广州市化工行业协会

地 址：深圳市龙岗区龙城路万象天成1栋2008、2009
联系人：齐全福 13632588916

CONTENTS 目录



2019 第十四届中国及亚太区乙醇上下游高峰论坛 千万吨级燃料乙醇产业越走越近

P01

特别报道

2018年，我国汽油表观消费约1.27亿吨。2020年前后，燃料乙醇产业能否满足千万吨级规模需求？9月17日，2019（第十四届）中国及亚太区乙醇上下游高峰论坛在上海成功举行，国家可再生能源中心研究员窦克军、中石油化工科学研究院主任郭鑫、广州化工交易中心首席分析师罗海燕等专家在论坛上发言，就全球乙醇市场格局、生物燃料乙醇产业、我国乙醇产业核心竞争力等热点问题进行深入

特别报道

2019第十四届中国及亚太区乙醇上下游高峰论坛

千万吨级燃料乙醇产业越走越近.....	丁肖娟	01
化工易2.0升级 首发惊艳论坛.....	周文俊	03

第十五届中国国际石油和化工水处理技术及装备展览会

因需而变 化工更美	周文俊	04
-----------------	-----	----

广化视点

2019年8月国内涂料成品市场行情走势分析.....	张荣鹏	05
乙二醇：别了小高潮 行情暂避险.....	陈嘉丽	08

CONTENTS 目录

企业与法

- 外包装上一行字 侵了地理商标权.....蔡培展 (摘编) 09

化工与生态

- 纳米印刷：地球万象的绿色印记.....周文俊 11
化工大数据·2019年上半年醋酸乙酯出口市场.....资讯部 13

专论与综述

- 六氟丙酮的制备研究进展.....李虎强 史博颖 陈文瑞 冯媛 14
聚苯硫醚的合成及其应用研究进展.....李小东 陈智 巨婷婷 17
磷系阻燃剂在聚氨酯中应用的研究进展.....张铁 文庆珍 朱金华 蓝敏杰 19
锂离子电池铝塑复合膜软包装材料综述.....徐冰 谭志清 吴慧斌 22
纳米技术在中药现代化应用的研究.....彭美萍 李培源 26
分散液液微萃取技术在毒品分析中的应用.....杨晶 康明星 宋爱英 29
聚合物热交换器发展与应用综述.....张金新 31
含油污水处理技术研究进展.....王存英 李小兵 34

科学实验

- 水热法制备 CoFe_2O_4 纳米晶及其表征.....沈雨萌 周舒凡 于佳酩 张怡 郑城凤 程倩 39
4,4-二氟二苯甲酮双腙的合成与结构表征.....李彬强 吴利欢 黄玉茹 陈诗婷 谢林健 42
三维柔性碳纤维纳米复合材料的制备及其电容性能研究.....关高明 李妮 陈美琳 方佳仪 陈作义 江涛 蒋辽川 45
布洛芬固体分散体凝胶型中空栓的制备研究.....刘汉 蒋诚 48
负载纳米 ZnO-TiO_2 凹凸棒土复合体的制备及表征.....郝永亮 50
水剂混凝土水化温升抑制剂的制备工艺研究.....薛峰 王瑞 王文斌 张小磊 李雷 储阳 53
Zeta电位法研究磷矿浮选影响因素.....田家亮 阮代锬 周骏宏 57
氮掺杂石墨烯量子点与番红花红T相互作用的研究.....张建坡 张棵室 娄希雅 金丽 60
珍珠透骨草总黄酮的微波提取工艺及抗氧化能力的探讨.....包兴慧 赵海燕 魏钰明 王思芦 肖文渊 雷玉 63

CONTENTS 目录

微生物燃料电池法处理腐竹加工废水.....	魏泉增 张超凡 吴一贞	66
Box-Behnken响应面法优化马钱子总碱凝胶贴膏基质处方的研究.....	李启泉 马德宁	70

分析测试

化学振荡法快速测定注射用头孢他啶含量.....	郭焱 李向果 吕静	74
紫外分光光度法研究不同摊放时间毛尖茶叶脂氧合酶活性的变化.....	吴桂玲 王万金 杨再梅 王叶	77
石墨炉原子吸收光谱法研究不同刀具中铅元素的迁移规律.....		
.....唐海尧 陈雅萍 司圆圆 刘和平 袁小红	80	
猴耳环不同药用部位的紫外-可见光谱鉴别研究.....	梁爽 陆红宇	83
黔产南方红豆杉挥发性成分研究.....周美 王道平 张明 骆衡 杨小生 秦志俊 秦天	86	
气相色谱串联质谱法测定水中多种有机氯农残.....夏静雪 李洒 李鹏飞	91	
UPLC法同时测定蒲黄中两种黄酮类成分.....张妍妍 陈瑾 宋舸 何泽源 冯旭	94	
氢化物发生-原子荧光光谱法测定土壤中的汞.....徐娇 尹左凤 尤朝贵 刘鹏	98	
气相色谱法测定含乳饮料中甜蜜素含量的不确定度评定.....杨涛 殷超	101	

环境保护

固体废弃物除尘灰综合治理现状.....	刘宪超 宋娜	104
2017年海宁市地表水环境监测及其评价.....赵慧 刘莹 陈新乐 俞云锋 施佳璐 顾滢 杨华云	106	
围填海工程对钓梁附近海域水质的影响.....张玉荣 李子孟 朱荣 朱剑	109	

化工机械

风送系统螺杆压缩机运行状况分析及优化.....	冯彭波 唐建兵	112
费托合成柴油分离正十二烷隔壁塔设计与优化.....万会军 张丽明 向忠权 刘明辉	114	
槽式液体分布器优化改良.....李素珍	118	

生产技术

水煤浆气化技术分析对比.....聂永广 荣蕾 范勇 刘子续	121
某热电厂冷却水系统结垢成因的研究.....白玉	124

CONTENTS 目录

教学园地

基于创新能力培养的专业实践仿真教学模式.....	陈红萍 樊丽华 侯彩霞	126
《材料测试方法》中衍射几何及结构因子的教学探讨.....	宋飞 刘清泉 刘文娟 谢文	128
项目教学法在《仪器分析实验》教学中的设计与实施.....	尹伟 法焕宝 杨韬 李凌杰 雷惊雷	131
聚合物合成工艺学课程教学改革与创新.....	丁祥 靳俊玲 黄小兵 肖安国 陈远道 左成钢	134
成果导向下的药用高分子材料课程改革研究.....	张楠 刘娜娜	136
转型师范院校煤化工课程开设现状与发展思考.....	刘成龙 李艳 梁永锋 马新贤 马贵 叶飞	138
微课在高师无机化学实验教学中的应用探讨.....	刘学文 唐裕才 胡霞 张松柏 卢基林 张慧	141
师范院校分析化学实验室绿色化建设探究.....	陈伟珍 余炳生 李志果 周国华 叶翠	143
以《无机及分析化学》为例浅议学生创新能力培养.....	郭鑫 袁寒梦 罗秋艳 肖滕 王文磊 谢练武	146
双创视角下高职水污染控制课程实训教改初探.....	姜科	148
地方应用型本科高校环境工程原理教学改革研究.....	扶咏梅 刘盼 刘彪 宋忠贤 郭一飞	151
高分子《创新探究试验》课程改革的思考.....	宫玉梅 郭静 赵秒 王艳 管福成	153
项目化教学背景下化学实训基地低值易耗品管理初探.....	解雪乔	155
《食品理化分析技术实验》教学问题解析.....	李跑 郑郁 蒋立文 李尚科 杨清华	157
《应用化学专业英语》教学心得体会.....	霍涌前 赵乐乐	159
药用基础化学自主设计实验教学的探索与实践.....	李华生 龙鸣 韩淑云	161

安全与管理

谈谈化工企业如何做好日常安全管理.....	宿树权	164
化工安全生产与环境保护管理措施研究.....	麻忠颖	167

CONTENTS

Research Progress on Preparation of Hexafluoroacetone	LI Hu-qiang SHI Bo-ying CHEN Wen-rui FENG Yuan	14
Research Progress on Synthesis and Application of Polyphenylene Sulfide	LI Xiao-dong CHEN Zhi JU Ting-ting	17
Research Progress on Application of Phosphorus Flame Retardant in Polyurethane	ZHANG Tie WEN Qing-zhen ZHU Jin-hua LAN Min-jie	19
Soft-package Material of Aluminum-plastic Compound for Lithium Ion Battery	XU Bing TAN Zhi-qing WU Hui-bin	22
Application of Nanotechnology in Modernization of Traditional Chinese Medicine	PENG Mei-ping LI Pei-yuan	26
Application of Dispersive Liquid-liquid Microextraction in Drugs Analysis	YANG Jing KANG Ming-xing SONG Ai-ying	29
Development and Application of Polymer Heat Exchangers	ZHANG Jin-xin	31
Research Progress on Oily Wastewater Treatment Technology.....	WANG Cun-ying LI Xiao-bing	34
Preparation and Characterization of CoFe ₂ O ₄ Magnetic Nanoparticles by Hydrothermal Method	SHEN Yu-meng ZHOU Shu-fan YU Jia-ming ZHANG Yi ZHENG Cheng-feng CHENG Qian	39
Synthesis and Structure Characterization of the Bis(4-fluorophenyl)methanone Dihydrazone Derivatives	LI Bin-qiang WU Li-huan HUANG Yu-ru CHEN Shi-ting XIE Lin-jian	42
Fabrication of Three-dimensional Flexible Carbon Fiber Nanocomposites and Their Capacitance Properties	GUAN Gao-ming LI Ni CHEN Mei-lin FANG Jia-yi CHEN Zuo-yi JIANG Tao JIANG Liao-chuan	45
Study on Preparation of Ibuprofen Solid Dispersed Gel Type Hollow Suppository	LIU Han JIANG Cheng	48
Preparation and Characterization of Coated Nano-ZnO/TiO ₂ Attapulgite Composites	HAO Yong-liang	50
Study on Preparation Process of Aqueous Concrete Temperature Rise Inhibitors	XUE Feng WANG Rui WANG Wen-bin ZHANG Xiao-lei LI Lei CHU Yang	53

Study on Influencing Factors of Phosphate Ore Flotation	on Factors Affecting Flotation by Zeta Potential Method	TIAN Jia-liang RUAN Dai-tan ZHOU Jun-hong	57
Study on Interaction between Nitrogen-doped Graphene Quantum Dots and Safranine T		ZHANG Jian-po ZHANG Ke-shi LOU Xi-ya JIN Li	60
Study on Microwave Extraction Technology and Antioxidant Capacity of Total Flavonoids in Tuberculate Speranskia Herb		BAO Xing-hui ZHAO Hai-yan WEI Yu-ming WANG Si-lu XIAO Wen-yuan LEI Yu	63
Treatment of Yuba Wastewater by Microbial Fuel Cell Method		WEI Quan-zeng ZHANG Chao-fan WU Yi-zhen	66
Optimization of Matrix Formulation of TASS by Box-Behnken Response Surface Methodology		LI Qi-quan MA De-yu	70
Rapid Determination of Cefoxitin for Injection Content by Chemical Oscillating Method		GUO Miao LI Xiang-guo LV Jing	74
Study on Changes of Lipoxygenase Activity of Maojian Tea at Different Spreading Time by UV Spectrophotometry		WU Gui-ling WANG Wan-jin YANG Zai-meい WANG Ye	77
Study on Migration Rule of Lead in Different Cutting Tools by Graphite Furnace Atomic Absorption Spectrometry		TANG Hai-yao CHEN Ya-ping SI Yuan-yuan LIU He-ping YUAN Xiao-hong	80
Study on UV-visible Spectra Identification of Different Parts of <i>Archidendron clypearia</i>		LIANG Shuang LU Hong-yu	83
Study on Volatile Components of <i>Taxus wallichianavar. marirei</i> in Guizhou		ZHOU Mei WANG Dao-ping ZHANG Ming LUO Heng YANG Xiao-sheng QIN Zhi-jun QIN Tian	86
Determination of Organochlorine Pesticide Residues in Water by Gas Chromatography Tandem Mass Spectrometry		XIA Jing-xue LI Sa LI Peng-fei	91
Simultaneous Determination of Two Flavonoids in <i>Typhae Pollen</i> by UPLC		ZHANG Yan-yan CHEN Jin SONG Ge HE Ze-yuan FENG Xu	94
Determination of Mercury in Soil by HG-AFS		XU Jiao YIN Zuo-feng YOU Chao-gui LIU Peng	98
Uncertainty Evaluation of Determination of Sodium Cyclamate in Dairy Drinks by Gas Chromatography		YANG Tao YIN Chao	101
Status of Comprehensive Treatment of Solid Waste Dust		LIU Xian-chao SONG Na	104

Monitoring and Evaluation of Surface Water Quality in Haining City in 2017	ZHAO Hui LIU Ying CHEN Xin-le YU Yun-feng SHI Jia-lu GU Ying YANG Hua-yun	106
Effect of Reclamation on Water Quality in the Sea Area near Diaoliang	ZHANG Yu-rong LI Zi-meng ZHU Rong ZHU Jian	109
Analysis and Optimization of Operation Status of Screw Compressor in Air Delivery System	FENG Peng-bo TANG Jian-bing	112
Design and Optimization of Dividing Wall Column for Separating Dodecane in F-T Synthesis Diesel	WAN Hui-jun ZHANG Li-ming XIANG Zhong-quan LIU Ming-hui	114
Optimization and Improvement of Groove Liquid Distributor.....	LI Su-zhen	118
Analysis and Comparison of Slurry Gasification Technology.....	NIE Yong-guang RONG Lei FAN Yong LIU Zi-xu	121
Study on the Cause of Scaling in Cooling Water System of a Thermal Power Plant	BAI Yu	124
Discussion on Practice Simulation Teaching Mode Based on Innovation Ability Cultivation	CHEN Hong-ping FAN Li-hua HOU Cai-xia	126
Teaching Discussion on Diffraction Geometry and Structure Factor in Materials Measurement Methods	SONG Fei LIU Qing-quan LIU Wen-juan XIE Wen	128
Design and Application of Project Teaching Method in Instrumental Analysis Experimental Course	YIN Wei FA Huan-bao YANG Tao LI Ling-jie LEI Jing-lei	131
Teaching Reform and Innovation of Polymer Polymerization Technology Course	DING Xiang JIN Jun-ling HUANG Xiao-bing XIAO An-guo CHEN Yuan-dao ZUO Cheng-gang	134
Research on Curriculum Reform of Polymers for Pharmaceuticals under the Outcome-based Education	ZHANG Nan LIU Na-na	136
Thoughts on the Current Situation and Development of Coal Chemical Industry Courses in Normal University Based on Application Transformation	LIU Cheng-long LI Yan LIANG Yong-feng MA Xin-xian MA Gui YE Fei	138
Discussion on the Application of Micro-lecture in Inorganic Chemistry Experiment Teaching in Normal Universities	LIU Xue-wen TANG Yu-cai HU Xia ZHANG Song-bai LU Ji-lin ZHANG Hui	141
Exploration on Green Construction of Analytical Chemistry Laboratories in Normal Universities	CHEN Wei-zhen YU Bing-sheng LI Zhi-guo ZHOU Guo-hua YE Cui	143

Discussion on the Cultivation of Students' Innovative Ability by Taking Inorganic and Analytical Chemistry as an Example	<i>GUO Xin YUAN Han-meng</i>
LUO Qiu-yan XIAO Teng WANG Wen-lei XIE Lian-wu	146
Experimental Teaching Reform of Water Pollution Control Engineering Course under the Background of Innovation and Entrepreneurship in Vocational College	
..... <i>JIANG Ke</i>	148
Research on Teaching Reform of Principles of Environmental Engineering in Local Applied Undergraduate University	
..... <i>FU Yong-mei LIU Pan LIU Biao SONG Zhong-xian GUO Yi-fei</i>	151
Thoughts on the Reform of Polymer Material Innovation and Exploration	
<i>GONG Yu-mei GUO Jing ZHAO Miao WANG Yan GUAN Fu-cheng</i>	153
Discussion on Administration of Low Value Consumables in Chemical Experimental Training Base under the Background of Project Oriented Teaching	
..... <i>XIE Xue-qiao</i>	155
Analysis of Teaching Problems in Food Physical-chemical Testing	<i>LI Pao</i>
<i>ZHENG Yu JIANG Li-wen LI Shang-ke YANG Qing-hua</i>	157
Teaching Experience of Specialty English of Applied Chemistry	<i>HUO Yong-qian ZHAO Le-le</i>
159	
Research and Practice of Experimental Teaching of Independent Design of Medicinal Basic Chemistry.....	
..... <i>LI Hua-sheng LONG Ming HAN Shu-yun</i>	161
Discussion on How to Manage the Daily Safety of Chemical Enterprises	<i>SU Shu-quan</i>
164	
Research on Management Measures of Safety Production and Environmental Protection in Chemical Industry	
..... <i>MA Zhong-ying</i>	167

GUANGZHOU CHEMICAL INDUSTRY

Open Publishing

Established in 1973 (Semimonthly)

Vol.47 No.19

Oct. 2019

Managed by :

Guangzhou Chemical Industrial Group Co., Ltd.

Sponsored by :

Guangzhou Research & Design Institute of Chemical Industry

Guangzhou Society of Chemistry and Chemical Engineering

Assisted by :

Guangzhou Chemical Industry Association

Edited by :

Editorial Office of "GUANGZHOU CHEMICAL INDUSTRY"

Chief Editor : WU Wen-li

Vice Chief Editor : LIN Jun-ying

Editor : LIU Qian-ting, HE Qi-hong

Advertisement Department : CHEN Liang

Address : Building D, Vanlead Innovation Park,
No.229, Helian Street, Baiyun District,
Guangzhou, P.R. China

Postcode : 510425

Tel : (020) 36372165

E-mail : gzhgbjb@vip.126.com

Website : <http://gzha.cbpt.cnki.net>

Printed by :

Guangdong Haifeng Printing Company Limited

Overseas Distributed by :

China National Publishing Industry Trading Corporation

Journal Code : ISSN 1001-9677

CN 44-1228/TQ

Advertising Business License No. : 4401004002668