

- 《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
- 全国石油和化工行业优秀期刊
- 广东省、广州市优秀科技期刊

ISSN 1001-9677
CN44-1228/TQ

广州化工

第14期
2013年7月
(下半月)
第41卷

GUANGZHOU CHEMICAL INDUSTRY

广州化工研究设计院

广州市化工行业协会

广州市化学化工学会

专业 专家
快速 准确



广化测试

化工检测 环境监测

广州化工分析测试中心有限公司
GUANGZHOU CHEMICAL ANALYSIS & TESTING CENTER CO., LTD

地址：广州市石井石潭路潭村桥东
电话：(020) 36372325
E-mail: gzhgjc@126.com

广州化工城办事处：

地址：广州市天河区东圃广州化工城H座101室
联系人：游杰机 电话：13903061387

万方数据

邮编：510430
传真：(020) 36371371
网址：www.gzhgjc.com

珠海办事处：

地址：珠海香洲区翠香路274号安平大厦1503室
联系人：郑晓彤 电话：15602861018

目 录

特 稿

大萘的化学成分综述 陈 泣, 龚千锋(1)

专论与综述

含油污泥资源化利用技术的前景探讨 迪丽努尔·木拉提, 屈撑园(3)

粉煤灰综合利用现状 张 强, 梁 杰, 石玉桥, 等(6)

高分子微球的研究现状与发展趋势 陶 果, 曾 琪, 徐友辉, 等(9)

海绵钛生产工艺研究进展 王家伟, 贾永真, 刘华龙(11)

CdS 复合光催化剂的研究 李越婷, 刘晓宁, 崔文权(14)

胸腺嘧啶...NO 复合物结构与性质的理论研究 吴义芳(17)

耐油塑料基材的性能选择研究 赵鹏程, 杨宏伟, 杨士亮, 等(21)

水氯镁石制备无水氯化镁研究进展 黄姗姗, 王红霞, 安玉生, 等(24)

纳米金属银的制备及其应用 赵俊英, 李莹莹(27)

典型高温超导带材及性能要求 王醒东(30)

固体氧化物燃料电池氧化铋基电解质 王明媚, 唐安江(33)

处理兰炭炼焦含油污水的隔油池的设计与计算 康 霖, 王维勤, 封 超, 等(35)

油气田硫化氢形成机理与安全防治研究 李 芒, 刘建川, 邓利民(38)

干式厌氧发酵技术研究综述 贾志莉(40)

葛根素注射剂溶血不良反应综述 郭晶晶, 丁选胜(43)

科学实验

酸水超声提取-液液萃取-HPLC 测定延胡索中乙素的含量 崔天武, 江 华, 胡兴鹏, 等(45)

二氧化钛双粒径组合对染料敏化电池光电性能的影响研究 王春阳, 李 祥, 周一浩, 等(48)

香蕉皮和香蕉叶对重金属 Cd²⁺ 离子的吸附性能研究 张才灵, 罗 楠, 智 霞, 等(52)

掺杂 Mn²⁺ 的 ZnSe 纳米晶的合成研究 邱 琦, 汪 勇, 罗仲宽(56)

有机粘结剂对 AZO 靶材致密化的影响 童义平(60)

绿色有机蒙脱石的制备、表征及其抗菌活性 陈鹏涛, 姜昕宇, 马 澜, 等(62)

木蝴蝶总黄酮对小鼠实验性急性心肌梗死的保护作用 李云贵, 马 宁, 徐望龙, 等(65)

双模板剂制备三元介孔复合体及其光催化研究 范美青, 任 勃, 张 艳(67)

系列氨基吡啶化合物的微波合成及表征 陈 创, 徐 扬, 胡 芸, 等(70)

梵净山翠峰茶多酚回流浸提工艺研究 张 丹, 樊 娇, 李 鑫, 等(72)

吡啶啉类钐配合物的合成及其光谱分析 徐超超, 叶江伟, 保积庆, 等(74)

聚氟乙烯膜及改性的聚氟乙烯膜的制备、表征与分离性能研究 陈晓培, 张 彤, 夏 艳, 等(76)

利用有机磷酸酯制备 LiFePO₄ 材料的初步研究 吕宏达, 王勇利, 赖荣辉, 等(79)

兰炭尾气中主要成分的分析利用 苏 婷, 高雯雯, 李 健(82)

酸度对水热法合成介孔纳米 TiO₂ 的结构及电化学性能的影响 刘云霞(85)

碳纳米管修饰的碳糊铁离子选择性电极的研究 刘新露, 潘训海, 苟亚光(88)

挥发曲线法测定鹅不食草挥发油的研究 刘运美, 何 军, 陈 文, 等(91)

基于统计模型法的活性炭吸附过程模拟研究 侯珂珂(93)

6-(4-甲基苯氧基)-5,12-萘并萘醌的合成与光致变色性质 蒋 蕙(96)

水性汽车阻尼板用压敏胶的研制 田 巧, 刘威胜(98)

铁氧体法处理含铬废水及铬回收实验研究 李燕灵, 王海峰(101)

碱熔融法对褐煤半焦脱灰的研究 史惠杰(104)

KDP 和 ADP 晶体的生长以及紫外透过性能研究 李振华, 王宗明(107)

不同原材料制备的微晶纤维素聚合度的研究 柴翠元, 董海丽(109)

白垩 100% 代替石灰石煅烧水泥生料易磨性的研究 赵 莉, 王永志(111)

储运油泥处理过程中 VOC 处置技术研究 杨方敏, 杨 帆, 金 科, 等(114)

二硫化钨夹层化合物制备的研究 章文君, 高乃兵, 胡晓翠(117)

大型 CFB 锅炉 NO_x, N₂O 排放规律和运行控制技术研究 王 炜, 杨建蒙, 严正波, 等(119)

微细铜粉 150~300 °C 空气氧化行为研究 李晨泓(122)

水性压敏粘合剂的研制 汪丽婷, 冯瑞琪(127)

分析测试

裂解气中砷含量测定影响因素的研究 高瑞峰, 徐 清(130)

顶空气相色谱分析变压器油中溶解气体含量 王维霞, 卢国华(133)

非抑制型离子色谱法同时测定食盐中微量阴离子 杨 静, 单祝庚(136)

高效液相色谱法测定向日葵花盘中绿原酸含量 索金玲, 阿依丁, 张金龙, 等(138)

ICP-MS 测定地质样品中的 Cu、Zn 等元素 黄慧珍(140)

广州化工 GUANGZHOU HUAGONG

《中国学术期刊综合评价数据库》统计源刊
《中国核心期刊(遴选)数据库》全文收录期刊
《中国期刊全文数据库》全文收录期刊
高、中级化工职称资格评审认定期刊

1973 年创刊(半月刊)

第 41 卷第 14 期

2013 年 7 月(下半月)

主管:广州化工集团有限公司

主办:广州化工研究设计院

广州市化工行业协会

协办:广州市化学化工学会

《广州化工》编辑部

主编:张 统

副主编:吴文莉

编辑:林珺颖 曾婉玲 罗方琪

广告:茅仁旭

GPC-HPLC-MS/MS法同时检测动物源食品中3种兽药残留
杨涛(142)
目视比色法测定硫酸铝中微量钙
傅琼莲(145)

环境保护

钻井废弃物不落地达标技术在新疆地区的适用性研究
曹义军,盛建东(147)
苏南某工业园印染废水水质特征分析
谢伟芳,阮小燕(152)
恩平市区环境空气质量现状分析及改善对策
黎凤笑(155)
广西木薯淀粉企业执行新标准实施情况分析
陈志明,林华,莫智明,等(158)
火焰原子吸收分光光度法测定水中铜的含量
张华丽(160)
自动电位滴定法测定水和废水中的氯化物
王婷(162)

化工机械

LNG储罐消防设计探讨
陈英(164)
全凝式蒸汽汽轮机真空系统浅析
王竹红,马振明(167)
压力容器开孔接管区应力的有限元分析
高慧峰,高勇,加万里(170)
压力容器圆柱型筒体上接管的局部应力分析
徐同喜,赵树峰(172)
试述气动隔膜泵在油漆生产企业中的应用
伍星(174)

生产技术

超声波-脉冲电脱盐技术的工业应用
李英(176)
氯乙烯聚合尾气回收工艺的改进
凌广运,孟德州,刘焕举(179)
焦化冷切焦水密闭循环技术的实践与改进
刘海涛,魏文,李宗明(181)
低温甲醇洗净煤气总硫超标的问题分析及解决
乔景红(184)
一种新清洗方法在化工冶炼酸度测量中的应用
王正旺,王丽娜,齐涛(187)

教学园地

高分子材料研究方法教学改革探讨
闫东广(190)
开放式教学在药物化学教学中的探索与实践
甘秀海,王波,姜金仲,等(192)
任务驱动式教学模式在培养研究型教师中的应用
李献文(195)
浅谈大学化学教学创新能力培养
林枫,韩晓霞(197)
浅谈有机化学实验教学的改进
李硕,苏小柱,谢家庆,等(200)
师范院校无机合成及实验教学改革初探
杨锦瑜,朱莉萍(202)
化工专业必修课《化工原理》研讨式教学的问题设计
苗真勇,秦志宏,孟献梁,等(204)

高职教育产学研合作培养应用型创新人才研究
柏林洋,刘文(206)
《安全评价技术》工学结合教材改革探索
吴小娟,朱建军,缪秀萍(208)
《材料现代分析测试方法》课程教学的改革初探
高俊珊,丁国新(210)
本科生免疫学课程教学的几点体会
柴瑞娟,薛正莲,杨超英,等(212)
实习基地建设的探索与实践
丁国新,王周锋,张宏艳,等(214)
化学类应用型人才培养的实验教学探讨
胡洪超,刘展眉,尹国强,等(216)
过程管理应用于化工类实验教学的探索和实践
文艳霞,高小红,肖梦媛(218)
大学化学教学研究
吕莉,韩玉霞,赵爽,等(220)
《药物合成实验》教学改革的探索
杨华,吴春丽(222)
浅谈有机化学教学创新
蒋丽琴(224)
高分子材料与工程实验的改进探究
石红(226)
如何上好中等职业的第一节课
王乐启,魏军凤(228)

安全与管理

石化工程项目质量管理实践
孙东彦(230)
长输管道事故案例统计分析及对策研究
王旭(233)
浅议化学理论在消防实践中的作用
赵玲(236)
延迟焦化安全问题的对策措施
张斌,蔡艳,尹齐峰,等(239)
工作场所有害因素检测工作的质量控制探讨
邢焯,周广鹏(242)

第八届编委会成员名单

主任:崔英德

副主任:叶家灿、白莉

秘书长:张统

委员:(排名不分先后)

钱宇、童叶翔、余林、王乐夫、何榕友、
杨育农、马小明、郑成、麦堪成、彭峰、
赵建青、尹国强、刘自力、李大光、杨定乔、
黄道平、李攻科、刘国光、陈国华、董新法、
方岩雄、刘晓国、李雪辉、陈旭东、李锡安、
梁基照、熊亚、曾庆焕、罗国钦、余慧文

编辑出版:《广州化工》编辑部

地址:广州市白云区石井石潭路潭村桥东

邮编:510430

电话:(020)36372165

传真:(020)36372165

E-mail:gzhgbjb@vip.126.com

网址:www.gzhgbjb.cn

印刷:广州南方科技器材服务部(南方医科大学直属印刷厂)

发行范围:国内外公开发行

国外发行:中国出版对外贸易公司(北京782信箱)

收款单位:广州化工研究设计院

开户银行:广州市工商银行石井支行

帐号:3602025309000823574

国内定价:13.00元/期 全年295.00元

国际标准刊号:ISSN1001-9677

国内统一刊号:CN44-1228/TQ

广告经营许可证:穗工商广字4401004002668号

出版物经营许可证:新出发粤刊总批字第226号

CONTENTS

Summary of Chemical Compositions of <i>Cirsium japonicum</i> DC.	CHEN Qi, GONG Qian-feng(1)
Discussion on the Prospect of Reused Technology of Oily Sludge	Dilnur Muratkyzy, QU Cheng-tun(3)
Comprehensive Utilization of Fly Ash	ZHANG Qiang, LIANG Jie, SHI Yu-qiao, et al. (6)
The Research Situation and Developing Tendency of Polymer Microspheres	TAO Guo, ZENG Qi, XU You-hui, et al. (9)
Research Progress of Sponge Titanium Production	WANG Jia-wei, JIA Yong-zhen, LIU Hua-long(11)
The Research on CdS Composite Photocatalyst	LI Yue-ting, LIU Xiao-ning, CUI Wen-quan(14)
A Theoretical Study on Structure and Properties of the Complexes between Thymine and NO	WU Yi-fang(17)
Study on Performance Choice of Oil Resistance Plastic Backing	ZHAO Peng-cheng, YANG Hong-wei, YANG Shi-liang, et al. (21)
The Progress of Study on Preparing Anhydrous Magnesium Chloride Based on Bichofite	HUANG Shan-shan, WANG Hong-xia, AN Yu-sheng, et al. (24)
Preparation and Application of Nano-silver	ZHAO Jun-ying, LI Ying-ying(27)
The Performance Requirements and Typical Superconducting Material	WANG Xing-dong(30)
Bi ₂ O ₃ -Based Solid Electrolyte for SOFC	WANG Ming-mei, TANG An-jiang(33)
The Designing and Calculation of Lan Carbon Coke Coking Oil Sewage Treating Grease Trap	KANG Ji, WANG Wei-xun, FENG Chao, et al. (35)
Hydrogen Sulfide Gas Fields and Security Control of the Formation Mechanism	LI Mang, LIU Jian-chuan, DENG Li-min(38)
State of Arts and Perspective of Dry Anaerobic Digestion	JIA Zhi-li(40)
Overview of the Hemolysis Induced by Puerarin Injection	GUO Jing-jing, DING Xuan-sheng(43)
Ultrasonic-Acid Abstraction-Liquid-liquid Extraction-HPLC for the Determination of Tetrahydropalmatine in <i>Rhizoma Corydalis</i>	CUI Tian-wu, JIANG Hua, HU Xing-peng, et al. (45)
Effect of Combination of Dual Particle Sizes Titanium Dioxide on Photoelectric Performance of DSSC	WANG Chun-yang, LI Xiang, ZHOU Yi-hao, et al. (48)
Absorption Behavior for Heavy Metal Cd ²⁺ Cations of Banana Peels and Banana Leaves	ZHANG Cai-ling, LUO Nan, ZHI Xia, et al. (52)
Study on Synthesis of Mn ²⁺ Doped ZnSe Nanoparticles	QIU Qi, WANG Yong, LUO Zhong-kuan(56)
Study on Influence of Organic Adhesive on the Densification of AZO Target Materials	TONG Yi-ping(60)
Preparation, Characterization and Antibacterial Activity of Green Organic Montmorillonite	CHEN Peng-tao, JIANG Xin-yu, MA Lan, et al. (62)
Protective Effect of Total Flavonoids from <i>Oroxylum</i> on Acute Myocardial Infarction in Mice	LI Yun-gui, MA Ning, XU Wang-long, et al. (65)
Synthesis and Photocatalytic Properties of Ternary Nanocomposite by Double Templates	FAN Mei-qing, REN Bo, ZHANG Yan(67)
Synthesis and Characterization of Series of Cyano-porphyrins Under Microwave Irradiation	CHEN Chuang, XU Yang, HU Yun, et al. (70)
Reflux Extraction Process Research of Tea Polyphenols in Cuifeng Tea from Fanjing Mountain	ZHANG Dan, FAN Jiao, LI Xin, et al. (72)
The Synthesis And Characterization of Pyrazolone Samarium Complexes	XU Chao-chao, YE Jiang-wei, BAO Ji-qing, et al. (74)
Preparation, Characterization and Separation Performance of Polyfluoroethylene and Modified Polyfluoroethylene Membrane	CHEN Xiao-pei, ZHANG Tong, XIA Yan, et al. (76)
Elementary Study of the Preparation of LiFePO ₄ Using Organic Phosphate	LV Hong-da, WANF Yong-li, LAI Rong-hui, et al. (79)
The Analysis and Use of Main Composition from Pyrolysis Gas	SU Ting, GAO Wen-wen, LI Jian(82)
The Effect of Acidity on the Structural and Electrochemical Properties of Mesoporous Titania Nanoparticles Synthesized by Hydrothermal Process	LIU Yun-xia(85)
Modified Carbon Paste Iron (III)-selective Electrode Based on New Carbon Nanotube	LIU Xin-lu, PAN Xun-hai, GOU Ya-guang(88)
Determination of VOCM by Evaporation Curve Method	LIU Yun-mei, HE Jun, CHEN Wen, et al. (91)
Statistical Model Simulation of Activated Carbon Adsorption	HOU Ke-ke(93)
Synthesis and Photochromic Properties of 6-(4-Methylphenoxy)-5,12-naphthacenequinone	JIANG Hong(96)
Preparation of the Emulsion Pressure-Sensitive Adhesive for the Hot-melt Type Automobile Damping Plate	TIAN Qiao, LIU Wei-sheng(98)
Treatment of Wastewater Containing Chromium and Recycling Chromium by Ferrite Process	LI Yan-ling, WANG Hai-feng(101)
The Study on the Alkali Fusion Method Deashing of Lignite Char	SHI Hui-jie(104)
Research on Growth and UV Transmission for KDP and ADP Crystals	LI Zheng-hua, WANG Zong-ming(107)
The Investigation into Degree of Polymerization of Microcrystalline Cellulose Made of Different Raw Materials	CHAI Cui-yuan, DONG Hai-li(109)

GUANGZHOU CHEMICAL INDUSTRY

Open Publishing

Established in 1973 (Semimonthly)

Vol. 41 No. 14

July, 2013

Chief Editor: ZHANG Tong

Editor:

The "GUANGZHOU CHEMICAL INDUSTRY"

Editorial Office:

(Address: Bridge (E.) Shitan Road, Shijing,

Baiyun District, Guangzhou, China)

- Study on Grindability of Raw Material of Cement Produced by Chalk ZHAO Li, WANG Yong-zhi(111)
- Study on VOC Disposal in Process of Oily Sludge Treatment YANG Fang-min, YANG Fan, JIN Ke, et al.(114)
- Preparation of Research of Tungsten Disulfide Intercalation Compounds ZHANG Wen-jun, GAO Nai-bing, HU Xiao-cui(117)
- NO_x, N₂O Emissions Laws and Control in Circulation Fluidized Bed Boilers WANG Wei, YANG Jian-meng, YAN Zheng-bo, et al.(119)
- Air Oxidation Behavior of Fine Copper Powder between 150 ~ 300 °C LI Chen-hong(122)
- Study on the Preparation of Waterborne Pressure-sensitive Adhesive WANG Li-ting, FENG Rui-qi(127)
- Study on Influence Factors of Determination of Arsenic Content in Pyrolysis Gas GAO Rui-feng, XU Qing(130)
- Analysis of Gases Dissolved in Electrical Insulating Oil by the Headspace Gas Chromatography WANG Wei-xia, LU Guo-hua(133)
- Simultaneous Determination of Trace Anion in Salt by Non-suppressed Ion Chromatography YANG Jing, SHAN Zhu-geng(136)
- Determination of the Contents of Chlorogenic Acid Sunflower Disc by HPLC SUO Jin-ling, A Yi-ding, ZHANG Jin-long, et al.(138)
- Determination of Elements Cu, Zn and others in Geological Samples by ICP-MS HUANG Hui-zhen(140)
- Simultaneous Detection of Three Veterinary Drugs Residues in Original Foods by GPC-HPLC-MS/MS YANG Tao(142)
- Visual Colorimetric Method for Trace Calcium Measuring in Aluminum Sulfate FU Qiong-lian(145)
- Study on the Application of Drilling Waste Not Landing Standard Technology in Xinjiang Region CAO Yi-jun, SHENG Jian-dong(147)
- Characteristics of Printing and Dyeing Wastewater Quality from Industrial Park in the South Part of Jiangsu XIE Wei-fang, RUAN Xiao-yan(152)
- Analysis and Improvement Measures of the Present Situation of the Quality of Air and Environment in Enping City LI Feng-xiao(155)
- Analysis on the Implementation of the New Standards in Guangxi Cassava Starch Enterprise Executive CHEN Zhi-ming, LIN Hua, MO Zhi-ming, et al.(158)
- Determination of the Copper in Water Samples with Flan Atomic Absorption Spectrophotometry ZHANG Hua-li(160)
- Determination of Chloride in Water and Waste-water by Automatic Potentiometric Titrimeter WANG Ting(162)
- Investigation for Fire Design of LNG Storage Tank CHEN Ying(164)
- Brief Analysis on Vacuum System of Full Condensing Steam Turbine WANG Zhu-hong, MA Zhen-ming(167)
- Finite Element Analysis of Stress at the Opening Tubing Connection on Pressure Vessel GAO Hui-feng, GAO Yong, JIA Wan-li(170)
- Nozzle Localized Stress Analysis on Pressure Vessel Cylindrical Shell XU Tong-xi, ZHAO Shu-feng(172)
- Discussions on the Applications of Pneumatic Diaphragm Pump in Paint Manufacturing Enterprises WU Xing(174)
- Industry Application of Ultrasonic-pulse Transformer Electrical Desalting Technology LI Ying(176)
- Improvement of Process of Recovery of Tail Gas from Polymerization of Vinyl Chloride LING Guang-yun, MENG De-zhou, LIU Huan-ju(179)
- Practice and Improvement of Cold and Cutting Coke Water Closed Circulation Technology LIU Hai-tao, WEI Wen, LI Zong-ming(181)
- Analysis and Solving the Problem of Excessive Total Sulfur Content in Purified Gas QIAO Jing-hong(184)
- A New Type of Cleaning Method for pH Meter in Chemical Metallurgy Field WANG Zheng-wang, WANG Li-na, QI Tao(187)
- The Investigation in Teaching Reform of Research Method of Polymer Materials YAN Dong-guang(190)
- Exploration and Practice of Open Teaching in Medicinal Chemistry GAN Xiu-hai, WANG Bo, JIANG Jin-zhong, et al.(192)
- Task-driven Teaching Mode in Cultivating Research-Oriented Teachers LI Xian-wen(195)
- Cultivation of Innovation Ability in University Chemistry Teaching LIN Feng, HAN Xiao-xia(197)
- Proposal for the Experiment Education of Organic Chemistry LI Shuo, SU Xiao-zhu, XIE Jia-qing, et al.(200)
- The Exploration on Teaching Reform of the Curriculum of Inorganic Synthesis and Experiment in Normal University YANG Jin-yu, ZHU Li-ping(202)
- Design of Deliberative Problems in Principles of Chemical Engineering Teaching MAIO Zhen-yong, QIN Zhi-hong, MENG Xian-liang, et al.(204)
- Study on the Cultivation of Applied Creative Talents by the Industry-Academia-Research Cooperation for High Vocational Education BAI Lin-yang, LIU Wen(206)
- The Exploration of Engineering and Teaching Material for The Technology of Safety Assessment WU Xiao-juan, ZHU Jian-jun, MIAO Xiu-ping(208)
- Teaching Reform of Materials Research Method Course GAO Jun-shan, DING Guo-xin(210)
- Teaching Techniques about Immunology for Undergraduate CHAI Rui-juan, XUE Zheng-lian, YANG Chao-ying, et al.(212)
- Study and Practice on Construction of Practice Base DING Guo-xin, WANG Zhou-feng, ZHANG Hong-yan, et al.(214)
- The Research of Experiment Teaching Method for Chemical Applied Talents HU Hong-chao, LIU Zhan-mei, YIN Guo-qiang, et al.(216)
- Process Management Applied to the Exploration and Practice of Chemical Experimental Teaching WEN Yan-xia, GAO Xiao-hong, XIAO Meng-yuan(218)
- The Research of University Chemistry Teaching LV Li, HAN Yu-xia, ZHAO Shuang, et al.(220)
- Exploration on the Teaching Reformation of Drug Synthesis Experiment YANG Hua, WU Chun-li(222)
- Discussion on Teaching Innovation of Organic Chemistry JIANG Li-qin(224)
- Improvement on Experiment of Polymer Materials and Engineering SHI Hong(226)
- How to Teach the First Class of Secondary Vocational WANG Le-qi, WEI Jun-feng(228)
- Practice of Quality Management of Petrochemical Project SUN Dong-yan(230)
- Statistical Analysis of Pipeline Accident Cases and the Research on Strategies WANG Xu(233)
- The Role of Chemical Theory in Fire Practice ZHAO Ling(236)
- Countermeasures for Security Issues of Delayed Coking ZHANG Bin, CAI Yan, YIN Qi-feng, et al.(239)
- Quality Control of Hazardous Factors Testing in the Workplace XING Ye, ZHOU Guang-peng(242)

Guangzhou Research & Design Institute of
Chemical Industry
Postcode: 510430
Tel: (020) 36372165 Fax: (020) 36372165
E-mail: gzhgbjb@vip.126.com
www.gzhgbjb.cn

Publisher:

Guangzhou Research & Design Institute of
Chemical Industry

Guangzhou Society of Chemistry
and Chemical Engineering
Guangzhou Chemical Industry Association

Journal Code ISSN 1001-9677
CN 44-1228/TQ