

目次

管理方略

劳动竞赛在促进企业班组管理提升中的作用	贾瑞博，赵晶晶	1
完善化工行业管理的有效途径	王怀波	4
“双碳”背景下现代煤化工发展路径	郑泽	7
化工安全生产管理与人的因素关联性探讨	吕虎	10
大型石化制造企业的人力资源绩效考核策略	齐炜	13

人才培养

化工原理热量传递过程的课程思政教学实践	刘荣，曹阳，余晓清，高铁群，谢贵明	16
OBE背景下的生物化学实验教学创新实践	苏会营	20
线上线下混合教学模式应用实践	罗阳	24
有机化学实验教学绿色化改革的实施路径	王凯	28
储能技术学科建设及本科生培养探索	常龙，李志伟，于昊，卢晓，于志豪	32
地方高校化学专业“三位一体”人才培养模式探析	张强，赵政轩，任传清，刘智峰	36

质量与检测

火电厂变压器油取样化验的管理	邵云云	40
巴嘎雪湿地水环境质量分析研究	谢鹏程，曾馨蓉，熊健，杨博，黄瑞卿，杨崛园，李伟	44
化学分析仪器在环保水质检测中的应用	荆兵	48
压力容器制造的质量控制策略	李富富	51

环保与节能

钢渣在土壤与地下水修复中的应用	张秋子	54
城市表层土壤重金属污染分析与研究	黄冉	57
电催化氧化技术在化工污染水体治理中的实践	李志华，王琳，曲正宝，陈莹洁	61
环境监测在化工企业管理中的重要性与优化对策	徐振华，苏玲玲	64
广东省化工园区环境风险防控体系建设及管理	李蔚静	67
医疗废物高温蒸煮后废气处理技术	张冰，石伟，白云，陈文斌，李康	70
除尘灰配煤应用与实践	栾义涛，李峰，孔鲁慧，范继宗，付恩祥，刘合彬	73

技术与信息

油气长输管道安装技术关键点研究	周勇	76
基于RFID技术的危化品管理柜的开发	褚靖，张洋，岳雷，彭启伟，曹西征	80
磁力固定地线装置在油气管道焊接中的应用	张先锋	83
柴油车尾气中碳烟燃烧催化剂的研究进展	王阳阳	86
生活垃圾焚烧发电及烟气处理技术	戚磊，傅露星	90

目次

安全管理

化工企业安全生产风险分级及管控措施	於娟娟	94
二二氧化碳+湿H ₂ S腐蚀脱乙烷塔系统的分析与防护措施	简印树	97
基于人工智能的危化品储运风险等级评价	张洋, 孔凡伟, 吕岳, 彭启伟, 曹西征	100
石油化工企业液化烃装卸设施消防设计	韩健	103
煤化工产业火灾风险特点及防控措施	潘宾滨	107
化工企业安全生产监督管理的有效举措	国卫卫	110
危险化学品安全生产管理现状及对策	林鑫	113
化工企业火灾防控难题与消防救援措施	周洁	116
高校实验室危险化学品安全事故防范措施	梁吉霖	120

设备运维

液环真空泵泵轴断裂原因分析及预防措施	邱宗义	124
苯乙烯储罐的安全性分析	吕祖鹏	128

工艺管控

环境友好型缓蚀阻垢剂的研制与性能分析	李秀峰, 张保利	131
厚度对纳米晶软磁合金带材自由面结构的影响	安海路, 周小江, 于彪, 王海峰	134
石油化工催化裂化工艺技术的优化措施	王裕振	137
超声辅助低共熔溶剂提取五味子中木脂素类化合物的工艺	马晓星, 韩翠艳, 朱文全, 梁桂林, 袁橙	140
硫磺回收自控装置主要控制逻辑设计应用	徐扬	144
烟煤发热量与收到基灰分及全水之和的关系研究	杨洋, 安鹏天	148
高分子渗透汽化膜分离技术的应用	安宝内	152
化工行业工艺安全管理与事故预防措施	李建慧	155
精细化生产管理存在的问题及对策	王瑞波	159

工程与施工

智能采矿技术在胡家河矿综放工作面的应用实践	李森, 闵孟岗	162
油气管道施工关键技术的应用与发展	赵碧贵	165

彩页说明

- 彩页1——华夏龙都·魅力濮阳
- 彩页2——濮阳新型化工基地
- 彩页3——《化工管理》征稿简则
- 彩页4——2023年度《化工管理》征订单

CONTENTS

Management Strategy

Role of Labor Competition in Promoting the Improvement of Enterprise Team Management	JIA Rui-bo, ZHAO Jing-jing	1
Effective Way to Improve the Management of Chemical Industry	WANG Huai-bo	4
Development Path of Modern Coal Chemical Industry under the Background of “Double Carbon”	ZHENG Ze	7
Discussion on the Correlation between Chemical Safety Production Management and Human Factors	LYU Hu	10
Human Resource Performance Appraisal Strategy of Large Petrochemical Manufacturing Enterprises	QI Wei	13

Personnel Culturing

Practice of Ideological and Political Teaching in the Course of Heat Transfer Process of Unit Operations of Chemical Engineering	LIU Rong, CAO Yang, YU Xiao-qing, GAO Yi-qun, XIE Gui-ming	16
Innovative Practice of Biochemistry Experimental Teaching in the Context of OBE	SU Hui-ying	20
Online and Offline Mixed Teaching Mode Application Practice	LUO Yang	24
Implementation Path of Green Reform in Organic Chemistry Experiment Teaching	WANG Kai	28
Exploring the Construction of the Energy Storage Technology Discipline and Undergraduate Cultivation	CHANG Long, LI Zhi-wei, YU Hao, LU Xiao, YU Zhi-hao	32
Analysis on the “Trinity” Talent Training Mode of Chemistry Major in Local Universities	ZHANG Qiang, ZHAO Zheng-xuan, REN Chuan-qing, LIU Zhi-feng	36

Quality and Testing

Management of Sampling and Testing of Transformer Oil in Thermal Power Plant	SHAO Yun-yun	40
Analysis of Water Environment Quality in Bagaxue Wetland	XIE Peng-cheng, ZENG Xin-rong, XIONG Jian, YANG Bo, HUANG Rui-qing, YANG Jue-yuan, LI Wei	44
Application of Chemical Analysis Instrument in Environmental Protection Water Quality Detection	JING Bing	48
Quality Control Strategy for Pressure Vessel Manufacturing	LI Fu-fu	51

Environmental Protection and Energy Saving

Application of Steel Slag in Soil and Groundwater Remediation	ZHANG Qiu-zi	54
Analysis and Study of Heavy Metal Pollution in Urban Topsoil	HUANG Ran	57
Practice of Electrocatalytic Oxidation Technology in the Treatment of Chemical Polluted Water Bodies	LI Zhi-hua, WANG Lin, QU Zheng-bao, CHEN Ying-jie	61
Importance and Optimization Countermeasure of Environmental Monitoring in Chemical Enterprise Management	XU Zhen-hua, SU Ling-ling	64
Construction and Management of Environmental Risk Prevention and Control System in Guangdong Chemical Industry Park	LI Wei-jing	67
Technology of Waste Gas Treatment after High Temperature Cooking of Medical Waste	ZHANG Bing, SHI Wei, BAI Yun, CHEN Wen-bin, LI Kang	70
Application and Practice of Dust Removal, Ash and Coal Blending	LUAN Yi-tao, LI Feng, KONG Lu-hui, FAN Ji-zong, FU En-xiang, LIU He-bin	73

Technology and Information

Research on the Key Points of Installation Technology of Long Oil and Gas Pipeline	ZHOU Yong	76
--	-----------	----

CONTENTS

Development of Hazardous Chemical Management Cabinet based on RFID Technology

.....	CHU Jing, ZHANG Yang, YUE Lei, PENG Qi-wei, CAO Xi-zheng	80
Application of Magnetic Fixed Ground Wire Device in Oil and Gas Pipeline Welding	ZHANG Xian-feng	83
Research Progress in Catalysts for Removal of Soot Particulates from Diesel Engines.....	WANG Yang-yang	86
Domestic Waste Incineration Power Generation and Flue Gas Treatment Technology	QI Lei, FU Lu-xing	90

Safty Management

Safety Production Risk Classification and Control Measures of Chemical Enterprises.....	YU Juan-juan	94
Analysis and Protection Measures of Carbon Dioxide + Wet H ₂ S Corrosion Deethane Tower System.....	JIAN Yin-shu	97
Risk Level Evaluation of Hazardous Chemical Storage and Transportation based on Artificial Intelligence	ZHANG Yang, KONG Fan-wei, LYU Yue, PENG Qi-wei, CAO Xi-zheng	100
Research of Fire Control Design of Liquefied Hydrocarbon Loading and Unloading Facilities in Petrochemical Enterprises	HAN Jian	103
Fire Risk Characteristics and Prevention and Control Measures in Coal Chemical Industry.....	PAN Bin-bin	107
Effective Measures of Safety Production Supervision and Management in Chemical Enterprises	GUO Wei-wei	110
Current Situation and Countermeasures of Safety Production Management of Hazardous Chemicals.....	LIN Xin	113
Fire Prevention and Control Problems and Fire Rescue Measures in Chemical Enterprises	ZHOU Jie	116
Safety Accident Prevention Measures of Hazardous Chemicals in University Laboratories	LIANG Ji-lin	120

Equipment Operation and Maintenance

Analysis of the Causes of Breakage of the Shaft of Liquid Ring Vacuum Pump and Its Preventive Measures	QIU Zong-yi	124
Safety Analysis of Styrene Storage Tank.....	LYU Zu-peng	128

Process Control

Development and Performance Analysis of Environment-friendly Corrosion Inhibitor and Scale Inhibitor	LI Xiu-feng, ZHANG Bao-li	131
Effect of the Thickness on the Structure of the Free Surface of the Nanocrystalline Soft Magnetic Alloy Strip	AN Hai-lu, ZHOU Xiao-jiang, YU Biao, WANG Hai-feng	134
Optimization Measures of Petrochemical Catalytic Cracking Process Technology	WANG Yu-zhen	137
Ultrasonic-assisted Deep Eutectic Solvents in Extraction of Lignans from Schisandra Chinensis	MA Xiao-xing, HAN Cui-yan, ZHU Wen-quan, LIANG Gui-lin, YUAN Cheng	140
Design and Application of Main Control Logic for Sulfur Recovery Automatic Control Device	XU Yang	144
Study on the Relationship between the Calorific Value of Bituminous Coal and the Sum of Received Base Ash and Total Water	YANG Yang, AN Peng-tian	148
Fire Protection Design of Liquefied Hydrocarbon Loading and Unloading Facilities in Petrochemical Enterprises	AN Bao-nei	152
Process Safety Management and Accident Prevention Measures in Chemical Industry.....	LI Jian-hui	155
Problems and Countermeasures in Production Management of Fine Chemicals	WANG Rui-bo	159

Engineering and Construction

Application Practice of Intelligent Mining Technology in Fully Mechanized Discharge Working Face of Hujiahe Mine	LI Sen, MIN Meng-gang	162
Application and Development of Key Technologies in Oil and Gas Pipeline Construction	ZHAO Bi-gui	165