

# 目次

## 人才培养

“责任关怀”融入食品生物技术课程的人才培养模式 .....	罗跃中, 匡燕, 李忠英, 何纤	1
基于贵州溶洞地貌和实验的“二氧化碳性质”教学设计 .....	李行利, 路小彬	4
工程教育专业认证和新工科背景下的教学改革与实践 .....	花丹, 耿頤, 杨欣, 甘林火, 詹国武	8
普通高校化学科研实验室培养本科生科研创新能力的探索 .....	吴超, 芦玲慧, 赵雄杰, 王宗成	14
现代信息技术在中职化学教学中的实际运用 .....	黄宝云	18

## 质量与检测

工业探伤工作人员的辐射监测与防护 .....	李爱东, 肖洋	22
液质联用仪测定蔬菜中氟虫腈及其代谢物的方法 .....	唐修然, 郑美华, 胡王艳, 黄雨, 沈欢	26

## 环保与节能

天水市农村地区水环境污染及防治 .....	王瑞君, 吕志鹏	31
油品销售企业提升油气回收与环保达标管理的改进措施 .....	丁晨雨	34
新时代化工园区环保管家业务模式探讨 .....	秦少鹏	37
10种庆阳产中药饮片微生物污染状况调研 .....	张煜琳, 李哲, 周芸, 吴伟, 王建声, 田幸平, 曹磊, 贾佳琳, 杜彦辉	40
黔西南州危险废物规范化管理的现状与对策 .....	李创	45
新时代生态环境管理的措施与创新 .....	刘莉萍	49

## 技术与信息

基于SWTO方法对山东省氢能产业发展的分析 .....	张一梁	53
LNG冷能发电技术发展现状与展望 .....	涂亚明	56
中国油气田开发工程技术面临的挑战与未来的发展 .....	郭瑞	59
红外成像技术在加油站油气泄漏排查中的应用 .....	吴雪妮, 金泽川, 呼佳宁	63
油气储运中管道科学防腐技术的应用 .....	马启吉	66

## 安全管理

化工消防救援处置能力改进措施 .....	赵新明	70
化工企业安全精细化管理策略 .....	孙录荣, 刘莉	74
石油化工事故灭火救援处置能力建设策略 .....	栾胜林	77
易燃易爆危化品储存的消防监督检查要点剖析 .....	肖涵	80
受限空间的作业风险及其安全管理措施 .....	张慧, 马永斌	84

# 目次

---

消防救援队伍在化学品灾害事故中的处置对策 .....	张建林	88
利用大数据平台分析化工企业消防安全风险的措施 .....	唐琪	91
危险化学品爆炸事故处置中消防员安全防范策略 .....	张震	94
化工企业消防安全监督管理中存在问题及对策 .....	陶茂荣	98

## 设备运维

化工行业消防装备的发展现状与对策 .....	冯帅	101
天然气长输管道输差的分析与控制措施 .....	程旭	104
化工装置泵类设备安装常见问题的处理措施 .....	段春贺	108
石油化工设备腐蚀原因及防腐管理 .....	刘欣宇	112
燃气轮机转子碰摩振动的分析与处理 .....	张小辉	115
化工企业仪表防冻防凝的管理措施 .....	袁晓军，郝俊，车利军	119

## 工艺管控

黄芪中药渣碳化吸附剂对水中阿莫西林的吸附特性研究 .....	隋丽丽，伍静，王琪，赵玥，王凯	122
油田联合站仪表控制系统安全性的模糊评价 .....	张照健，陈柱蓉，杨荣，毕青，于瑾	126
高纯硫酸锰生产流程危险性分析与职业健康防护 .....	梁坤，秦信睿，杨玉蓉，旷涛	130
水溶肥生产工艺的创新发展 .....	郝启添	134
海底输油管道流量-温度调节特性研究 .....	王洪杰	138

## 工程与施工

油基钻井泥浆应用发展动态分析 .....	郭荣欣，邓超，陈潇，周玥，刘研萍	143
海洋石油作业现场安全管理措施 .....	胡星，赵明，苟治铭	147
LNG应急调峰储配项目设计阶段的工程造价控制 .....	张茜	150
化工设计在防范安全生产事故中的作用 .....	陈玉柱，谢宇	154
利用安全工具提升海洋石油平台的安全管理水平 .....	苟治铭，胡星	158
天然气场站火灾危险性及消防设计的策略 .....	扈航	162
油田建设采油工程方案设计重要作用的解析 .....	袁圆	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——山东恒源石油化工股份有限公司  
彩页4——中海石油气电集团创新管理经验推广珠海现场交流会

# CONTENTS

---

## Personnel Culturing

“Responsible Care” into the Food Biotechnology Curriculum Talent Training Mode .....	LUO Yue-zhong, KUANG Yan, LI Zhong-ying, HE Qian	1
Teaching Design of “Carbon Dioxide Properties” based on Guizhou Karst Cave Land Form and Experiments .....	LI Xing-li, LU Xiao-bin	4
Teaching Reform and Practice in the Context of Industry Certification and New Engineering .....	HUA Dan, GENG Di, YANG Xin, GAN Lin-huo, ZHAN Guo-wu	8
Exploration on Cultivating Undergraduate Students’ Research Innovation Ability in Chemistry Research Laboratories of Ordinary Universities .....	WU Chao, LU Ling-hui, ZHAO Xiong-jie, WANG Zong-cheng	14
Practical Application of Modern Information Technology in Chemistry Teaching in Secondary Vocational Schools .....	HUANG Bao-yun	18

## Quality and Testing

Radiation Monitoring and Protection for Industrial Flaw Detection Workers .....	LI Ai-dong, XIAO Yang	22
Determination of Fipronil and Its Metabolites in Vegetables by Liquid Mass Spectrometry .....	TANG Xiu-ran, ZHENG Mei-hua, HU Wang-yan, HUANG Yu, SHEN Huan	26

## Environmental Protection and Energy Saving

Rural Water Environment Pollution and Prevention in Tianshui .....	WANG Rui-jun, LYU Zhi-peng	31
Improvement Measures to Oil Gas Recovery and Improve Environmental Compliance Managementin Oil Product Sales Enterprises.....	DING Chen-yu	34
Discussion on the Service Mode of Environmental Steward in Chemical Industry Park under New Era .....	QIN Shao-peng	37
Investigation on Microbial Contamination of 10 Traditional Chinese Medicine Pieces Produced in Qingyang .....	ZHANG Yu-lin, LI Zhe, ZHOU Yun, WU Wei, WANG Jian-sheng, TIAN Xing-ping, CAO Lei, JIA Jia-lin, DU Yan-hui	40
Current Situation and Countermeasures of Standardized Hazardous Waste Management in Qianxinan Prefecture .....	LI Chuang	45
Measures and Innovation of Ecological Environment Management in New Era .....	LIU Li-ping	49

## Technology and Information

Analysis on the Development of Hydrogen Energy Industry in Shandong Province based on SWTO Method .....	ZHANG Yi-liang	53
Development Status and Prospect of LNG Cooling Power Generation Technology .....	TU Ya-ming	56
Challenges and Future Development of Oil and Gas Field Development Engineering Technology in China.....	GUO Rui	59
Application of Infrared Imaging Detection Technology in Oil Gas Leakage at Gas Stations .....	WU Xue-ni, JIN Ze-chuan, HU Jia-ning	63
Application of Scientific Anti-corrosion Technology for Pipelinesin Oil and Gas Storage and Transportation .....	MA Qi-ji	66

## Safty Management

Measures to Improve the Ability of Fire Rescue and Disposal in Chemical Industry .....	ZHAO Xin-ming	70
--	---------------	----

# CONTENTS

---

Chemical Enterprise Safety Fine Management Strategy.....	SUN Lu-rong, LIU Li	74
Capacity Building Strategy of Fire Fighting and Rescue Disposal for Petrochemical Accidents .....	LUAN Sheng-lin	77
Explore the Key Points of Fire Supervision and Inspection of Inflammable and Explosive Hazardous Chemicals .....	XIAO Han	80
Risk and Safety Management Measures of Working in Confined Space .....	ZHANG Hui, MA Yong-bin	84
Countermeasures of Fire Rescue Team in Chemical Disaster Accident.....	ZHANG Jian-lin	88
Using Big Data Platform to Analyze the Measures of Fire Safety Risk in Chemical Enterprises .....	TANG Qi	91
Firefighter Safety Prevention Strategy in Handling Hazardous Chemical Explosion Accident .....	ZHANG Zhen	94
Problems and Countermeasures Existing in Fire Safety Supervision and Management of Chemical Enterprises .....	TAO Mao-rong	98

## Equipment Operation and Maintenance

Development Status and Countermeasures of Fire Equipment in Chemical Industry .....	FENG Shuai	101
Analysis and Control Measures of Long-distance Natural Gas Pipeline Transmission Difference .....	CHENG Xu	104
Chemical Plant Pump Equipment Installation Common Problems to Deal with Measures .....	DUAN Chun-he	108
Corrosion Causes and Anticorrosion Management of Petrochemical Equipment .....	LIU Xin-yu	112
Analysis and Treatment of Rub Impact Vibration of Gas Turbine Rotor .....	ZHANG Xiao-hui	115
Chemical Enterprise Instrument Antifreezing and Anticoagulation Management Measures .....	YUAN Xiao-jun, HAO Jun, CHE Li-jun	119

## Process Control

Study on the Adsorption Characteristics of Amoxicillin in Water by the Astragalus Traditional Chinese Medicine Residue Carbonization Adsorbent .....	SUI Li-li, WU Jing, WANG Qi, ZHAO Yue, WANG Kai	122
Fuzzy Evaluation of Safety of Instrument Control System in Oilfield Combined Station .....	ZHANG Zhao-jian, CHEN Zhu-rong, YANG Rong, BI Qing, YU Jin	126
Risk Analysis and Occupational Health Protection of High-purity Manganese Sulfate Production Process .....	LIANG Kun, QIN Xin-rui, YANG Yu-rong, KUANG Tao	130
Research on Innovation and Development of Water Soluble Fertilizer Production Process .....	HAO Qi-tian	134
Study on Flowrate-Temperature Regulation Characteristics of Submarine Oil Pipeline .....	WANG Hong-jie	138

## Engineering and Construction

Bibliometric Analysis of Application Research of Oil-based Drilling Mud .....	GUO Rong-xin, DENG Chao, CHEN Xiao, ZHOU Yue, LIU Yan-ping	143
Safety Management Measures for Offshore Oil Operation Site .....	HU Xing, ZHAO Ming, GOU Zhi-ming	147
Project Cost Control in the Design Stage of LNG Emergency Peak Regulation, Storage and Distribution Project .....	ZHANG Xi	150
Role of Chemical Design in Preventing Accidents in Production Safety .....	CHEN Yu-zhu, XIE Yu	154
Using Safety Tools to Improve the Safety Management Level of Offshore Oil Platforms.....	GOU Zhi-ming, HU Xing	158
Fire Risk of Natural Gas Station and Strategies for Fire Control Design.....	HU Hang	162
Analysis of the Important Role of Oil Production Engineering Scheme Design in Oilfield Construction .....	YUAN Yuan	165