

- ◆ 《中国科学引文数据库》来源期刊
- ◆ 《中国学术期刊综合评价数据库》来源期刊
- ◆ 《中文科技期刊数据库》全文收录期刊

- ◆ 《中国核心期刊(遴选)数据库》收录期刊
- ◆ 《中国期刊全文数据库》收录期刊
- ◆ 《中国期刊网》《中国学术期刊(光盘版)》全文收录期刊



创建绿色家园

全面腐蚀控制

TOTAL CORROSION CONTROL



南通星球石墨设备有限公司

Nantong Xingqiu Graphite Equipment Co., Ltd.



中国大型石墨化工设备研发生产基地



地址：江苏省如皋市九华镇华兴路8号
 传真：0513-87577322

邮编：226541 防腐热线：4001-000-129
 网址：www.ntxingqiu.com



中国工业防腐蚀技术协会主办



全面腐蚀控制杂志社出版

06

2021.VOL.35

1986年创刊·公开发行

全面腐蚀控制

CONTENTS 目次

管理篇

【协会工作】

- 1 关于印发协会“制定腐蚀控制工程全生命周期领域标准化“十四五”规划和2035年远景目标会议”暨“协会八届三次常务理事扩大会议”会议纪要的通知
- 1 协会“制定腐蚀控制工程全生命周期领域标准化“十四五”规划和2035年远景目标会议”会议纪要
- 3 关于授予任振铎同志“中国腐蚀控制行业最高成就奖”的决定

技术篇

【专论】

- 4 埋地金属油气管道交流杂散电流检测、评价综述
/钟良 董凯 孙伟栋 谭冰
- 10 站场埋地管阴极保护电位测量与评估的影响因素
/黄红科 魏松林 刘朝 章强 龚怒
高路杨 赵博康
- 19 南海某油田油管腐蚀失效原因分析
/金曦 冯佳琦 孙吉星 周小杰 杨岳澄

【经验交流】

- 25 高温高剪切力复杂湿气工况下缓蚀剂的评价
/熊荣雷 柳鹏 刘英坤
- 30 一种地面钢质管道损伤涡流磁场检测系统设计
/党伟 朱兵

- 36 天然气净化装置尾气焚烧余热锅炉改造节能效果评估
/孙亚琴 李桂青 江一
- 42 油田地面工程管道防腐施工技术的应用策略
/陶珊
- 44 浅析炼油污水处理场提标改造
/张朝志
- 46 浅谈工业厂房通风管道设计需要注意的问题
/张羽
- 48 埋地管道防腐层缺陷检测与评价技术分析
/马天星
- 51 DR检测工艺参数优化设置技术的研究和应用
/陈剑 丁超
- 54 水性涂料在钢结构建筑防腐控制技术中的应用策略
/刘超
- 56 涿源县城镇燃气中压管网阴极保护调查研究
及整改评价
/刘子洋 孙长富 郭彦明 王翔东 于海昆
刘兆鹏 刘晓龙
- 62 杭州某小区地下燃气管道腐蚀原因检测与分析
/赵承 冯其栋 范列朋
- 68 管道建设及运行期机械损伤预防措施
/孙典昊 蒋玉卓 窦志信 李磊
胡炎兴 杨小璇
- 71 钢制立式储罐的施工技术措施探讨
/刘爱国

73 防腐设计在工业建筑结构中的应用解析
/苏丽丽

75 地面建设的土建施工技术以及安全管理分析
/李 涛

77 地面管线腐蚀原因分析及防治措施
/王 颖

80 大口径埋地管道安装质量过程控制探讨
/石 路

82 输油管道阴极保护防腐技术研究
/程 千

84 油气管道防腐施工质量影响因素及控制措施
/陈兴洪

86 输油管道防腐工艺的现状与措施
/车庆男

88 不锈钢设备保温后腐蚀的预防
/姜爱国

92 钢板屋面防渗漏与防腐蚀问题分析
/班兴亮

94 防腐弯管聚乙烯复合带的包覆加热温度研究
/方世杰 李振武 王俊峰 王海涛
宋泽宇 张志阳

99 全生命周期下装备制造制造业腐蚀控制工程风险评价研究
/刘仍礼 何志峰 陆 俊 刘 畅

102 长输管道阴极保护技术与故障解决措施
/杨 志

104 油气田地面建设工程造价的管理模式分析
/尹 龙

107 土建工程管理创新及绿色施工管理方法分析
/洪 圣

109 天然气管道3层PE防腐层失效及补强探讨
/赵 聪

112 提高建筑工程土建施工现场管理的建议
/李显林

115 埋地集输管道防腐保温技术研究
/汪 洋

118 高酸性气田地面工艺配套技术及发展探讨
/刘 璇

120 地面设备安装及集输管道施工研究
/吴长清

【腐蚀研究】

123 油田注水管线防腐措施研究分析
/柳跃鹏

125 油田管道腐蚀原因分析及防腐措施探讨
/刘畅游

127 油田工艺管道腐蚀与防腐措施研究
/杨 璞

130 污水沉降罐介质腐蚀性分析
/刘建发

132 管道和储罐的腐蚀及其质量防护技术
/冯 铄

134 输油管道腐蚀问题与防护措施研究
/丁东升

136 某油田采油树出口管段腐蚀问题分析
/李志奇

145 某海洋平台埋地管线阴保现状及腐蚀原因分析
/王超本 余刘杰

149 龙王庙组气藏地面集输系统腐蚀控制措施研究
/唐 诗 马 鑫 蒋 志 沈武冬 张昌会 徐 梅

153 大型立式钢制储罐的内防腐施工策略
/李运德

TOTAL CORROSION CONTROL

(Monthly)

Vol. 35 No.06 (Serial No. 255)

JUN 28, 2021

CONTENTS

• Monograph •

- Review of A.C. Stray Current Detection and Evaluation of Buried Metal Oil and Gas Pipelines ZHONG Liang, DONG Kai, SUN Wei-dong, TAN Bing (4)
- Influence Factors on Survey and Evaluation of Cathodic Protection Potential for Buried Pipes in Stations HUANG Hong-ke, WEI Song-lin, LIU Zhao, ZHANG Qiang, GONG Nu, GAO Lu-yang, ZHAO Bo-kang (10)
- Analysis of Failure Causes of Tubing Corrosion in an Oilfield in South China Sea JIN Xi, FENG Jia-qi, SUN Ji-xing, ZHOU Xiao-jie, YANG Yue-cheng (19)

• Experience Exchange •

- Evaluation of Corrosion Inhibitors under Complicated Moisture Conditions with High Temperature and High Wall Shear XIONG Rong-lei, LIU Peng, LIU Ying-kun (25)
- System Design of the Ground Steel Pipes Damage Detection Based on Eddy Magnetic Field DANG Wei, ZHU Bing (30)
- Energy Efficiency Evaluation of the Transformation of an Exhaust Gas Waste-heat Boiler in a Natural Gas Purification Unit SUN Ya-qin, LI Gui-qi, JIANG Yi (36)
- Application Strategy of Pipeline Anticorrosion Construction Technology in Oilfield Surface Engineering TAO Shan (42)
- Analysis on the Upgrading of Refinery Wastewater Treatment Plant ZHANG Chao-zhi (44)
- Talking about the Problems Needing Attention in the Design of Ventilation Piping in Industrial Workshop ZHANG Yu (46)
- Technical Analysis of Defect Detection and Evaluation of Buried Pipeline Anticorrosion Coating MA Tian-xing (48)
- Research and Application on Optimal Setting Technology of DR Testing Process Parameters CHEN Jian, DING Chao (51)
- Application Strategy of Water Based Coating in Anti-corrosion Control Technology of Steel Structure Building LIU Chao (54)
- Investigation and Rectification Evaluation on Cathodic Protection of Medium Pressure Gas Pipe Network in Laishuan County LIU Zi-yang, SUN Chang-fu, GUO Yan-ming, WANG Xiang-dong, YU Hai-kun, LIU Zhao-peng, LIU Xiao-long (56)
- Cause Detection and Analysis on Corrosion of Buried Gas Pipelines ZHAO Cheng, FENG Qi-dong, FAN Lie-peng (62)
- Preventive Measures for Mechanical Damage in Pipeline Construction and Operation Stage SUN Dian-hao, JIANG Yu-zhuo, DOU Zhi-xin, LI Lei, HU Yan-xing, YANG Xiao-xuan (68)
- Discussion on Construction Technology Measures of Steel Vertical Storage Tank LIU Ai-guo (71)
- Application Analysis of Anticorrosion Design in Industrial Building Structure SU Li-li (73)
- Analysis of Civil Construction Technology and Safety Management of Ground Construction LI Tao (75)
- Cause Analysis and Prevention Measures of Ground Pipeline Corrosion WANG Ying (77)
- Discussion on the Quality Process Control of Large Diameter Buried Pipeline Installation SHI Lu (80)
- Research on Cathodic Protection and Anticorrosion Technology of Oil Pipeline CHENG Qian (82)
- Influencing Factors and Control Measures of Anticorrosion Construction Quality of Oil and Gas Pipeline CHEN Xing-hong (84)
- Present Situation and Measures of Anticorrosion Technology for Oil Pipeline CHE Qing-nan (86)
- Corrosion Prevention of Stainless Steel Equipment After Heat Preservation JIANG Ai-guo (88)
- Analysis on Anti Leakage and Anti-corrosion of Steel Plate Roof BAN Xing-liang (92)
- Study on the Heating Temperature of Polyethylene Composite Tape for Anticorrosive Bend FANG Shi-jie, LI Zhen-wu, WANG Jun-feng, WANG Hai-tao, SONG Ze-yu, ZHANG Zhi-yang (94)
- Discussion of Corrosion Control Risk Assessment on Equipment Manufacturing Industry Under Life Cycle LIU Reng-li, HE Zhi-feng, LU Jun, LIU Chang (99)
- Long Distance Pipeline Cathodic Protection Technology and Fault Solving Measures YANG Zhi (102)
- Analysis on the Cost Management Mode of Oil and Gas Field Surface Construction Project YIN Long (104)
- Management Innovation of Civil Engineering and Analysis of Green Construction Management Method HONG Sheng (107)
- Discussion on Failure and Reinforcement of 3-layer PE Coating for Natural Gas Pipeline ZHAO Cong (109)
- Suggestions on Improving The Management of Civil Engineering Construction Site LI Xian-lin (112)
- Study on Anti Corrosion and Thermal Insulation Technology of Buried Gathering and Transportation Pipeline WANG Yang (115)
- Discussion on Surface Technology and Development of High Acid Gas Field LIU Xuan (118)
- Research on Surface Equipment Installation and Gathering Pipeline Construction WU Chang-qing (120)

• Corrosion Research •

- Research and Analysis of Anti-corrosion Measures for Oilfield Water Injection Pipeline LIU Yue-peng (123)
- Corrosion Causes and Anticorrosion Measures of Oil Field Pipeline LIU Chang-you (125)
- Study on Corrosion and Anti-corrosion Measures of Oil Field Process Pipeline YANG Pu (127)
- Analysis of Medium Corrosion in Sewage Settling Tank LIU Jian-fa (130)
- Corrosion of Pipeline and Storage Tank and Its Quality Protection Technology FENG Shuo (132)
- Study on Corrosion Problems and Protection Measures of Oil Pipeline DING Dong-sheng (134)
- Corrosion Analysis of Outlet Pipe Section of Christmas Tree in an Oilfield LI Zhi-Qi (136)
- Analysis on the Current Situation of Cathodic Protection and Corrosion Reasons of Buried Pipelines of an Offshore Platform WANG Chao-ben, YU Liu-jie (145)
- The research of Corrosion Control of Surface Gathering and Transportation System in Longwangmiao Formation Gas Reservoir TANG Shi, MA Li, JIANG Zhi, SHEN Wu-dong, ZHANG Chang-hui, XU Mei (149)
- Construction Strategy of Large Vertical Steel Storage Tank LI Yun-de (153)

Sponsored by China Industry Anticorrosion Technology Association (CIATA)

Edited and Published by the Editorial Department of TOTAL CORROSION CONTROL

Honorary Chairman of Editorial Committee: PAN Lian-sheng

Chairman of Editorial Committee: KE Wei

Editor in Chief: REN Zhen-duo (Concurrently)

Add: C-509, Yayunhaoting, No.9 Xiaoying Rd, Chaoyang Dist., Beijing, China

Post Code: 100101

Tel: (8610) 64896415 64896750

Fax: (8610) 64896415

Fixed Price: US\$ | 6.00

Web site: <http://www.ciata-tcc.com>