



主管/主办：中海油天津化工研究设计院有限公司

ISSN 1005-829X
CN 12-1087/TQ

工业水处理®

INDUSTRIAL WATER TREATMENT

7

中文核心期刊 中国科技核心期刊 中国期刊方阵双效期刊 全国石油和化工期刊百强榜精品期刊

2021/ NO.7
VOL.41

ISSN 1005-829X



9 771005 829217

工业水处理

GONGYE SHUICHULI

(月刊)

1981年创刊

2021年第7期 (总第365期)

Vol.41 No.7

主 编: 于海斌

副 主 编: 李绍全 明云峰

主管: 中海油天津化工研究设计院有限公司

主办: 中海油天津化工研究设计院有限公司

编辑: 《工业水处理》编辑部

出版: 《工业水处理》编辑部

地址: (300131)天津市红桥区丁字沽三号路85号

编辑部电话: (022)26689330

广告部电话: (022)26689033 26678212

E-mail: iwt@iwt.cn

网址: www.iwt.cn

微信公众号: iwt1981

印刷: 天津中铁物资印业有限公司

责任编辑: 赵 谨



扫一扫

关注《工业水处理》公众号

国内总发行: 中国邮政集团公司天津市邮政报刊发行局

国外总发行: 中国国际图书贸易总公司

中国标准连续出版物号: ISSN 1005-829X

国内统一连续出版物号: CN 12-1087/X

国内订阅: 全国各地邮局(所)

邮发代号: 国内 6-61 国外 4515MO

发行范围: 公开发行

广告备案号: 津红监管广登[2019]1号

商标注册号: 728782

出版日期: 2021-07-20

定 价: 国内 30.00(¥)

国外 16.00(\$)

本刊入选

- 全国中文核心期刊
- 中国期刊方阵双效期刊
- 中国科技核心期刊
- 中国科学引文数据库

- 美国化学文摘
- 俄罗斯《文摘杂志》
- 美国剑桥科学文摘
- 日本科学技术振兴机构数据库

目 次

专论与综述

多金属氧化物催化臭氧氧化有机污染物的研究进展

..... 孔 涛 任 诺 陈春茂 等(1)

淀粉基化学品用作吸附剂的应用研究进展

..... 赵雅兰 陈启杰 谢琼华 等(19)

反渗透海水淡化中无机结垢的现象及实时监测

..... 刘建路 岳茂文 陈晓宇 等(25)

碳气凝胶及其在污水处理中的应用

..... 王雅苹 刘子滢 李会吉 等(34)

生物电 Fenton 法处理难降解有机物的研究进展

..... 庞绍婕 刘玉香(39)

生物法处理高盐废水中氨氮的研究进展

..... 杨 晶 季必霄 张会宁 等(45)

南方某工业区废水处理现状分析及对策研究

..... 翟治国 于海水 闪金华 等(52)

Anammox 脱氮工艺应用限制因素的调控策略

..... 蒙小俊 郭楠楠 黄志贵(56)

试验研究

两级 UASB 处理 PTA 废水性能评价及微生物群落特征

..... 寇 悦 郭泓桥 姜梁妍 等(64)

炼化污水生化工艺处理效果综合评价及数字化应用

..... 侯晓峰 赵 谨 寇 悦 等(70)

UASB 处理高硫酸盐废水及人工神经网络模型的构建

..... 王庆宏 余静诗 梁家豪 等(77)

改性给水污泥协同 FeCl₃ 调理污泥深度脱水

..... 薛协平 张彦平 孙雪萌 等(82)

氧化松木生物炭高效去除水中 Pb 及定量吸附机理

..... 周振扬 杨驰浩 尹微琴 等(88)

工业水处理

GONGYE SHUICHULI
(月刊)

《工业水处理》创刊于1981年,是由中海油天津化工研究设计院有限公司主办的专业性科技期刊。重点报道国内外有关工业废水、循环冷却水、锅炉水、工艺用水的水处理技术动态、专题述评、研究报告、工程案例、经验总结、科学管理及行业快讯等内容,适于从事水处理领域的高等院校师生、科研设计单位的工程技术人员及企业的运营管理人员订阅。

下期要目

- 水环境中微塑料的去除研究进展
- 高效反渗透工艺在浓盐水浓缩中的应用
- MBR中膜污染表征手段的研究进展
- 铋基光催化剂降解四环素的研究进展
- 厌氧铁氨氧化工艺特性与控制策略的研究进展
- 畜禽养殖废水处理工艺分析研究
- 微波技术在有机废水处理中的研究进展
- 铝型材加工污泥焙烧脱硫工艺的研究
- 铁碳床-SBR耦合优化工艺处理屠宰废水实验研究
- 负载型CuO催化-膜过滤草甘膦废水的工艺研究

餐厨发酵液强化喹啉降解和反硝化脱氮
..... 林惟实 何春华 王传亚 等(94)

聚天冬氨酸阻垢缓蚀性能量子化学研究
..... 程玉山 吴晋英 黄长山(100)

一株耐盐菌在长链二元酸废水处理中的应用
..... 马和旭 郭宏山 秦中良 等(105)

NaHSO₃强化Fe²⁺/过硫酸盐体系处理铬黑T废水的优化
..... 安帅 李海松(112)

PP-g-(AA-MAH)纤维的制备及对水中苯胺的吸附
..... 许懿扬 连洲洋 张寅 等(117)

电絮凝法同步去除地下水中砷、锰、氟的效能及机理
..... 张浩 李诚 顾悦 等(121)

环氧树脂高含盐废水的资源化处理
..... 李晓韬 赵申 左煜 等(126)

废水中硼的去除工艺试验与研究
..... 乔明晨 陈兴权 乔春生(130)

一体式隔油-生物滤池装置处理餐饮废水的效能研究
..... 姚焯 王国贺 王趁义 等(134)

油气田水处理

海上稠油热采锅炉给水系统优化方法研究与应用
..... 姜维东 阎洪涛 徐文江 等(140)

油田采出水一体化处理工艺在新疆油田的应用
..... 李远朋 曲鹏 侯丽娜 等(144)

工程实例

预处理/厌氧/MBR/RO工艺处理垃圾焚烧渗滤液
..... 罗威威 孙廷岳 黄春华(148)

不锈钢产品生产废水零排放工程实例
..... 邵启运 蒋志辉 袁东日 等(152)

经验交流

高盐分LAS废水处理工艺改造与调试
..... 江葱(157)

小型电镀园区废水处理案例及分析
..... 欧志文 葛晓霞(161)

水处理知识讲座 (93)

广告目次 (J1)

Industrial Water Treatment (Monthly)

Established in 1981

Vol.41, No.7, 2021

(Serial No.365)

Chief Editor: Yu Haibin

Vice Chief Editor: Li Shaoquan Ming Yunfeng

Sponsored by

CenerTech Tianjin Chemical Research and Design Institute Co., Ltd.

Edited by

The Editorial Office of Industrial Water Treatment

Published by

The Editorial Office of Industrial Water Treatment

Address: No. 3 Road Dingzigu, Hongqiao District, Tianjin, China

Postcode: 300131

Editorial Office: 86-22-26689330

Advertising Department:

86-22-26689033 26678212

E-mail: iwt@iwt.cn

URL: //www.iwt.cn

Distributed in China by

Tianjin Post Newspaper and Magazine Publishing Bureau

Distributed abroad by

China International Book Trade Co.

Subscribing place:

All the post offices in China

China standard serial number:

ISSN 1005-829X

China serial number:

CN 12-1087/X

Post distributing number:

domestic: 6-61 abroad: 4515MO

Issuing scope: Open Publishing

Publishing date: 2021-07-20

Price: 30.00(CNY) (Domestic)

16.00(US \$) (Foreign)

CONTENTS

SUMMARIES AND THESES ON SPECIAL TOPICS

Research progress of catalytic ozonation of organic contaminants by poly-metallic oxides

..... Kong Tao, Ren Nuo, Chen Chunmao, et al(1)

Research progress on application of starch-based chemicals as adsorbent

..... Zhao Yalan, Chen Qijie, Xie Qionghua, et al(19)

The phenomenon and real-time monitoring of inorganic scaling in reverse osmosis seawater desalination process

..... Liu Jianlu, Yue Maowen, Chen Xiaoyu, et al(25)

Carbon aerogel and its application in wastewater treatment

..... Wang Yaping, Liu Ziyang, Li Huiji, et al(34)

Research progress of bioelectric Fenton method for treatment of refractory organic pollutants

..... Pang Shaojie, Liu Yuxiang(39)

Research progress on biological treatment of ammonia nitrogen in high-salt wastewater

..... Yang Jing, Ji Bixiao, Zhang Huining, et al(45)

Situation analysis and countermeasure of wastewater treatment in an industrial park of southern China

..... Zhai Zhiguo, Yu Haishui, Shan Jinhua, et al(52)

Regulatory strategies of limiting factors for Anammox process application

..... Meng Xiaojun, Guo Nannan, Huang Zhigui(56)

RESEARCH AND EXPERIMENT

Performances and microbial communities of two-stage UASB reactors in treatment of PTA wastewater

..... Kou Yue, Guo Hongqiao, Jiang Liangyan, et al(64)

Digital application and comprehensive assessment on petroleum refinery wastewater biological processes

..... Hou Xiaofeng, Zhao Jin, Kou Yue, et al(70)

Treatment of sulfate-rich wastewater by UASB and construction of artificial neural network model

..... Wang Qinghong, Yu Jingshi, Liang Jiahao, et al(77)

Deep dewatering of sludge by the coordination of the modified sludge and FeCl₃

..... Xue Xieping, Zhang Yanping, Sun Xuemeng, et al(82)

Efficient removal and quantitative adsorption mechanisms of Pb from water by oxidized pine biochars

..... Zhou Zhenyang, Yang Chihao, Yin Huiqin, et al(88)

Enhancement of quinoline degradation and denitrification nitrogen removal by using fermentation liquid from food waste

..... Lin Weishi, He Chunhua, Wang Chuanya, et al(94)

Quantum chemistry study on scale-corrosion inhibition performance of polyaspartic acid

..... Cheng Yushan, Wu Jinying, Huang Changshan(100)

Application of a salt-tolerant bacterium in the treatment of long-chain dibasic acid wastewater

..... Ma Hexu, Guo Hongshan, Qin Zhongliang, et al(105)

Optimization of NaHSO₃ enhanced Fe²⁺/persulfate system for treatment of eriochrome black T wastewater by response surface methods

..... An Shuai, Li Haisong(112)

Preparation of PP-g-(AA-MAH) fiber and its adsorption for aniline in water

..... Xu Yiyang, Lian Zhouyang, Zhang Yin, et al(117)

Performance and mechanism of simultaneous removal of arsenic, manganese and fluorine from groundwater by electro-flocculation

..... Zhang Hao, Li Cheng, Gu Yue, et al(121)

Resource treatment of epoxy resin wastewater containing high salt

..... Li Xiaotao, Zhao Shen, Zuo Yu, et al(126)

Removal process experiment of boron from wastewater

..... Qiao Mingchen, Chen Xingquan, Qiao Chunsheng(130)

Research on the efficiency of integrated oil separator-biological filter unit to treat restaurant wastewater

..... Yao Ye, Wang Guohe, Wang Chenyi, et al(134)

WATER TREATMENT IN OIL-GAS FIELD

Research and application of optimization method for boiler feed water system of offshore heavy oil thermal recovery

..... Jiang Weidong, Yan Hongtao, Xu Wenjiang, et al(140)

Application of integrated treatment technology of oilfield produced water in Xinjiang Oilfield

..... Li Yuanpeng, Qu Peng, Hou Lina, et al(144)

PROJECT CASE

Treatment leachate from MSW incineration with pretreatment/anaerobic/MBR/RO

..... Luo Weiwei, Sun Tingyue, Huang Chunhua(148)

Project example of zero-discharge treatment of stainless-steel production wastewater

..... Shao Qiyun, Jiang Zhihui, Yuan Dongri, et al(152)

EXCHANGES OF EXPERIENCES

Process transformation and commissioning of high salinity LAS wastewater treatment

..... Jiang Cong(157)

Wastewater treatment case in a small electroplating park and its analysis

..... Ou Zhiwen, Ge Xiaoxia(161)

Industrial Water Treatment (Monthly)

Founded in 1981, Industrial Water Treatment is a professional and technical journal sponsored by CenerTech Tianjin Chemical Research & Design Institute Co., Ltd. and cooperated by the National Engineering & Technology Research Center for Industrial Water Treatment reporting the technical dynamic information, special topic reviews, research reports, engineering cases, summary of experiences, scientific management and industry news flashes, etc. on industrial wastewater, circulating cooling water, boiler water, and process water etc. in China and abroad. It is suitable for teachers and students in colleges and universities, technologists in scientific research and design organizations, and operational & managerial personnel in enterprises in the field of water treatment to subscribe.

Advance Notice

- Research status on the removal of microplastics in aqueous environment
- Application of high efficiency reverse osmosis process in concentrated brine concentration
- Research advance on characterization of membrane foulants in membrane bioreactors
- Research progress in the tetracycline degradation by bismuthal photocatalysts
- Research progress of Feammox's processing characteristics and control strategies
- Analysis and research on treatment process of livestock and poultry wastewater
- Research progress of microwave technology in the treatment of organic wastewater
- Roasting desulfurization process of sludge from aluminum profile processing
- Treatment of slaughter wastewater using iron-carbon bed-SBR coupling process
- Treatment of glyphosate wastewater by supported CuO catalytic-membrane separation process