

工程应用篇

目 次

述评与讨论

- 源分离技术的国内外研发进展及应用现状 郝晓地,衣兰凯,仇付国(1)
- 上海陈行水库浮游藻类分布规律及控制措施 王绍祥,申一尘,屈云芳,等(8)
- 水行业自控系统选型分析 尹德斌,朱庆明(12)
- 城市合流管溢流污染的负荷及控制 杨文进,蒋海涛,吴瑜红,等(16)
- 天津市排水专项规划及排水设施建设 张 荣,齐珊珊,齐 欣,等(19)
- 膜生物反应器的最新研究进展 沈悦啸,王利政,莫颖慧,等(22)
- 饮用水中全氟化合物(PFCs)的控制研究进展 田富箱,徐 斌,夏圣骥,等(28)

热点专题(太湖流域水污染治理)

- 无锡市城镇污水处理厂升级改造技术路线综述 蒋岚岚,吴 伟,沈晓铃,等(33)
- 无锡市芦村污水处理厂升级改造工程设计总结 赵欣萍,刘继先,王姬芳,等(36)

设计经验

- 秦皇岛市绿港污泥处理工程设计特点 李 君,李成江,徐文刚(39)
- 大连市夏家河污泥处理厂的工艺设计与运行经验 陈 海,王 玥,刘东海(42)
- 污水处理厂滤池自动控制系统的设计 刘玉涛,陈 颀(45)
- 前置反硝化SBR工艺的设计 张婧倩,彭永臻,唐旭光,等(48)
- 兰州新世纪小区污水处理与回用工程设计 叶吉生(55)
- 沙河污水处理厂矩形沉淀池工艺设计 李震声,朱 勇,马 刚,等(59)
- 西鸡西煤矿矿井水处理工艺设计 刘文辉,李 颖(63)
- 上海市白龙港南线污水输送干线完善工程设计 颜晓斐(66)
- 广州市沥滘污水处理厂一期工程的设计及运行 陈贻龙(70)
- 秦皇岛市第二污水厂提标改造及扩建工程的电气设计 温琳莘(74)
- 长距离输水管道经济管径的确定 蒋玖璐(77)

工程实例

- 天津市大港区污水处理厂升级改造工程实践 陈凡阵,马千里,郝 赫,等(80)
- 萧山城市污水处理厂脱氮除磷升级改造实践 孟 鑫,吴坤敏,陈 伟,等(84)
- 汕头市新津水厂加药系统的改造 陈岸颖,王 勇,陈晓恂(87)
- 水解酸化与A²O²组合工艺处理有机制药废水 王远红,潘立常,曹文平,等(90)

广州实施供水管网的分区分压计量供水	朱子朋,孙伟,许刚(93)
电催化氧化/生物法联用处理高浓度化工废水	戴启洲,蔡少卿,王家德,等(96)
中药废水处理工艺改造及回用工程	韩宪平,恽伟,王宁(100)
浏园水厂采用二氧化氯消毒的实践总结	王秀荣(103)
水解酸化/前置反硝化 BAF 工艺处理城市生活污水	张凌翰,韩洪军,李雨霏,等(106)
混凝沉淀/水解酸化/SBR 工艺处理液晶屏生产废水	杨文澜,王波,余磊磊,等(109)
PCS7 在齐市中心城区污水处理厂一期工程的应用	刘如有,王洁,王成芳(112)

节水与回用

钢铁企业生产废水的深度处理及资源化综合利用	阳卫国(115)
-----------------------------	----------

分析与监测

污水氯消毒副产物卤乙酸检测方法的优化	孙迎雪,胡洪营,吴乾元,等(118)
等离子体发射光谱法直接测定海水中总磷	刘小骥,冯晏辉,李艳苹,等(123)
三氯生检测方法的建立与优化	周雪飞,陈家斌,周世兵,等(126)

节能减排

小红门污水处理厂利用沼气拖动鼓风机的节能效果	应启锋,王佳伟,高金华,等(130)
------------------------------	--------------------

海水淡化

具备升压功能的差动式反渗透能量回收装置的研制	王生辉,潘献辉,初喜章,等(133)
------------------------------	--------------------

运行与管理

A ² O 工艺二沉池出水的污泥絮体优化控制	彭艺艺,刘向荣,丁兆铭,等(137)
离心式鼓风机喘振原因分析及对策	王涛,周琦(141)

施工与监理

大口径 PCCP 管在西江引水工程中的应用	胡小冲(143)
某中心城区雨污合建泵站的深基坑支护工程	顾玮,陈琳,毛毅,等(147)

水工业窗口

立式斜板(管)沉淀工艺设计与应用	方永忠,黄继华,方永辉,等(150)
------------------------	--------------------

企业动态:(7)、(62)、(89)、(95)、(136)、(140) 工程信息:(11)、(122) 技术交流:(32) 信息:(105)

ENGINEERING APPLICATION EDITION

CONTENTS

REVIEWS AND DISCUSSIONS

Global R & D Progress and Applied Situation of Source Separation Techniques	HAO Xiao-di, <i>et al.</i> (1)
Distribution and Control of Phytoplankton in Chenhang Reservoir in Shanghai	WANG Shao-xiang, <i>et al.</i> (8)
Selection Analysis of Automation Control Systems Used in Water Industry	YIN De-bin, <i>et al.</i> (12)
Load and Control of Pollution from Combined Sewer Overflows in Cities	YANG Wen-jin, <i>et al.</i> (16)
Tianjin Special Drainage Planning and Construction of Drainage Facilities	ZHANG Rong, <i>et al.</i> (19)
State of the Art of Membrane Bioreactors	SHEN Yue-xiao, <i>et al.</i> (22)
Research Progress in Control of Perfluorochemicals in Drinking Water	TIAN Fu-xiang, <i>et al.</i> (28)

HOT TOPICS(Pollution Control in Taihu Lake Basin)

Overview of Technology Roadmap for Upgrading Reconstruction of Wastewater Treatment Plants in Wuxi	JIANG Lan-lan, <i>et al.</i> (33)
Design Review of Upgrading Reconstruction Project of Lucun Wastewater Treatment Plant in Wuxi	ZHAO Xin-ping, <i>et al.</i> (36)

DESIGN EXPERIENCES

Design Features of Lvqiang Sludge Treatment Project in Qinhuangdao City	LI Jun, <i>et al.</i> (39)
Process Design and Operation Experience of Xiajiabe WWTP in Dalian City	CHEN Hai, <i>et al.</i> (42)
Design of Automatic Control System for Filter in Wastewater Treatment Plant	LIU Yu-tao, <i>et al.</i> (45)
Design of Pre-denitrification SBR Process	ZHANG Jing-qian, <i>et al.</i> (48)
Design of Sewage Treatment and Reuse Engineering of New Century Residential Area in Lanzhou City	YE Ji-sheng (55)
Process Design of Rectangular Sedimentation Tank in Shahe Wastewater Treatment Plant	LI Zhen-sheng, <i>et al.</i> (59)
Design of Xijixi Coal Mine Water Treatment Process	LIU Wen-hui, <i>et al.</i> (63)
Design of Improvement Engineering for South Route Wastewater Transmission Main Line in Shanghai Bailonggang Section	YAN Xiao-fei (66)
Design and Operation of First-phase Project of Guangzhou Lijiao Wastewater Treatment Plant	CHEN Yi-long(70)
Design of Electrical System in Upgrading Reconstruction and Extension Projects of Qinhuangdao Second Wastewater Treatment Plant	WEN Lin-ping(74)
Determination of Economical Diameter of Long Distance Water Transmission Pipeline	JIANG Jiu-lu(77)

PROJECT CASES

Practice of Upgrading Reconstruction Project of WWTP in Dagang District, Tianjin City	CHEN Fan-zhen, <i>et al.</i> (80)
Upgrading Reconstruction of Sewage Treatment Plant for Nitrogen and Phosphorus Removal	MENG Xin, <i>et al.</i> (84)
Reconstruction of Chemical Dosing System in Xinjin Water Treatment Plant in Shantou City	CHEN An-ying, <i>et al.</i> (87)
Combined Process of Hydrolytic Acidification and A^2/O^2 for Treatment of Organic Pharmaceutical Wastewater	WANG Yuan-hong, <i>et al.</i> (90)

Measuring Water Distribution Based on Different Areas and Pressures of Pipe Network in Guangzhou City	ZHU Zi-peng, <i>et al.</i> (93)
Electrocatalytic Oxidation/Biological Process for Treatment of High Concentration Chemical Wastewater	DAI Qi-zhou, <i>et al.</i> (96)
Reconstruction of Treatment Process of Traditional Chinese Medicine Wastewater and Reuse Project	HAN Xian-ping, <i>et al.</i> (100)
Practical Summary of Chlorine Dioxide Disinfection in Liuyuan Waterworks	WANG Xiu-rong (103)
Hydrolysis Acidification/Pre-denitrification Biological Aerated Filter Process for Treatment of Municipal Domestic Sewage	ZHANG Ling-han, <i>et al.</i> (106)
Coagulation and Sedimentation/Hydrolysis Acidification/SBR Process for Treatment of LCD Production Wastewater	YANG Wen-lan, <i>et al.</i> (109)
Application of PCS7 in First-stage Project of WWTP in Central Area of Qiqihaer City	LIU Ru-you, <i>et al.</i> (112)

WATER CONSERVATION AND REUSE

Advanced Treatment and Resource Reuse of Iron and Steel Production Wastewater	YANG Wei-guo (115)
---	--------------------

ANALYSIS AND MONITORING

Optimization of Determination Method of Haloacetic Acids in Wastewater Chlorination	SUN Ying-xue, <i>et al.</i> (118)
Direct Determination of Total Phosphorus in Seawater by Inductively Coupled Plasma Atomic Emission Spectrometry	LIU Xiao-qi, <i>et al.</i> (123)
Determination of Triclosan in Wastewater and Sludge Treatment by USE/SPE-HPLC	ZHOU Xue-fei, <i>et al.</i> (126)

ENERGY SAVING AND EMISSION REDUCTION

Energy Conservation Effect of Driving Blower by Biogas Engine in Xiaohongmen WWTP	YING Qi-feng, <i>et al.</i> (130)
---	-----------------------------------

SEAWATER DESALINATION

Development of Differential Reverse Osmosis Energy Recovery Device with a Function of Pressure Boost	WANG Sheng-hui, <i>et al.</i> (133)
---	-------------------------------------

OPERATION AND MANAGEMENT

Optimized Control of Sludge Floes in Effluent from Secondary Sedimentation Tank in A ² /O Process	PENG Yi-yi, <i>et al.</i> (137)
Reason Analysis and Countermeasures for Surge of Centrifugal Blower in WWTP	WANG Tao, <i>et al.</i> (141)

CONSTRUCTION AND SUPERVISION

Application of Large-diameter Prestressed Concrete Cylinder Pipe in West River Diversion Project	HU Xiao-chong (143)
Support and Protection Project for Deep Foundation Pit of Rain-Sewage Pumping Station in a Downtown	GU Wei, <i>et al.</i> (147)

WINDOWS OF WATER INDUSTRY

Design and Application of Vertical and Inclined Plate or Tube Sedimentation Technology	FANG Yong-zhong, <i>et al.</i> (150)
--	--------------------------------------