

# 工程应用篇

## 目 次

### 述评与讨论

- 广州市番禺区供水一体化整合模式探索 ..... 贾国宁, 黄平(1)  
接触氧化除铁除锰机理的探讨 ..... 李继震(6)  
合流制排水系统溢流污染水量、水质分级控制方案 ..... 李立青, 朱仁肖, 尹澄清(9)  
GIS 地理信息系统在绍兴市排水管网中的应用 ..... 彭巧瑜, 徐海峰, 卢方(13)  
水处理中微量抗生素去除的研究及进展 ..... 姜蕾, 谢丽, 周琪, 等(18)

### 热 点 专 题(太湖流域水污染治理)

- 改良型 A<sup>2</sup>/O 工艺的脱氮诊断分析 ..... 陈亚松, 颜孜佳, 文嘉, 等(23)  
小型污水处理厂 A<sup>2</sup>/O 工艺提标改造技术措施与运行 ..... 戴界红(28)

### 雨洪控制利用专题

- 城镇排水系统溢流与排放污染控制策略与技术导则 ..... 张善发(31)  
降雨过程中雨水渗透设施的雨水流入量计算 ..... 赵世明(36)  
滨海新区海河隧道排水系统设计 ..... 李曦淳, 李鹏, 李东, 等(39)  
上海中心城区泵站放江溢流污染影响因子分析 ..... 徐连军, 张善发(42)  
广州市雨水调蓄池规划技术研究 ..... 朱理铭, 李钏(46)  
基于低影响开发的雨水管理模型研究及进展 ..... 王建龙, 车伍, 易红星(50)  
武汉市东沙湖地区合流制溢流污染控制方法探讨 ..... 陈雄志, 康丹(55)  
京承高速公路径流污染负荷及初期冲刷效应研究 ..... 李俊奇, 毛坤, 向璐璐(59)

### 设 计 经 验

- 淀山湖河口生态浮床试验工程设计与效果研究 ..... 孙从军, 高阳俊, 曹勇, 等(64)  
活性污泥/微滤膜工艺用于十堰市污水处理厂升级改造 ..... 朱昱, 陈翔, 姜朝庆, 等(69)  
成都市固体废弃物卫生处置场垃圾渗滤液处理工程设计 ..... 朱勇, 刘保成, 杜昱, 等(73)  
成都某工业园区污水处理厂的设计与运行 ..... 李宏(76)  
分散染料染色废水处理工程的设计及运行 ..... 黄运金, 邓吉成, 梁桂(80)  
大型化工园区染料废水处理工艺设计 ..... 陈克玲(83)  
承钢综合废水处理厂一期工程设计 ..... 孙红晔, 苗利利, 宋小鹏, 等(88)

## 工 程 实 例

- 现行热水用水量标准的适用性分析及建议 ..... 屈利娟,王靖华,王小红,等(92)  
基于植物吸收的农村生活污水处理系统 ..... 胡敏华,王家伟,姚伟国(96)  
北方某制药企业废水处理工程实例 ..... 肖 诚,魏 迅,白瑞峰,等(99)  
高效微生物—A/O 工艺处理化工综合废水 ..... 冯 平,彭华平,孙振兴,等(102)  
PLC 现场总线及串行通讯网络用于立交泵站改造 ..... 魏作诚(106)  
HYBAS<sup>TM</sup> 流动床生物膜工艺用于污水厂的升级改造 ..... 王海亮,张微尘,马 宁,等(109)  
自来水厂排泥水处理的电气控制流程 ..... 陆中华,陆 焰(114)  
烟台市污水厂污泥送电厂混合焚烧示范工程 ..... 侯春兴,孙晓森(117)

## 节 水 与 回 用

- 济南柴油机厂生产废水的处理及回用 ..... 张 霞,李 荣,王新英(121)

## 分 析 与 监 测

- 脱水污泥及其堆肥过程中聚丙烯酰胺的检测 ..... 盛 倩,吴星五,刘 晨,等(124)  
污泥中金属元素测定前处理方法的改进 ..... 何持平,张 敏(128)  
哈希水质分析仪表在中水厂的应用 ..... 方 闻,蔡兴杰(131)

## 节 能 减 排

- 城市污水厂全流程节能降耗示范工程分析 ..... 刘礼祥,张金松,黄凌军,等(134)  
污水处理厂的优化节能控制措施与应用 ..... 许光泞,周林荣,文欣秀(139)

## 运 行 与 管 理

- 低负荷城市污水厂的运行问题与对策 ..... 温荣平,卢东昱,郭 伟,等(144)  
处理酒精废水的 UBF 反应器酸化问题及重新启动 ..... 贾晓凤,王晓睿(147)

## 施 工 与 监 理

- 水平定向钻进敷设给排水管道设计中的若干问题 ..... 杨 明(151)

企业动态:(68)、(91) 更正:(95)

## ENGINEERING APPLICATION EDITION

# C O N T E N T S

### REVIEWS AND DISCUSSIONS

Study on Integrated Water Supply Mode in Panyu District, Guangzhou .....	JIA Guo-ning, <i>et al.</i> ( 1 )
Investigation on Mechanism of Iron and Manganese Removal by Contact Oxidation .....	LI Ji-zhen ( 6 )
Grade Control Solution for Combined Sewer Overflow Pollution Quantity and Quality .....	LI Li-qing, <i>et al.</i> ( 9 )
Application of Geographic Information System to Shaoxing Urban Drainage Network .....	PENG Qiao-yu, <i>et al.</i> ( 13 )
Research and Progress in Removal of Trace Antibiotics from Sewage and Drinking Water .....	JIANG Lei, <i>et al.</i> ( 20 )

### HOT TOPICS(Pollution Control in Taihu Lake Basin)

Diagnosis Analysis on Nitrogen Removal by Modified A <sup>2</sup> /O Process .....	CHEN Ya-song, <i>et al.</i> ( 23 )
Measures for Upgrading and Reconstruction of Small Sewage Treatment Plant Using A <sup>2</sup> /O Process .....	DAI Jie-hong( 28 )

### STORMWATER MANAGEMENT TOPIC

Strategy and Technical Guidelines for Urban Sewer Overflow and Discharge Pollution Control .....	ZHANG Shan-fa( 31 )
Calculation of Rainwater Inflow Rate into Rainwater Infiltration Facilities during Rainfall .....	ZHAO Shi-ming( 36 )
Design of Haihe River Tunnel Drainage System in Binhai New District of Tianjin .....	LI Xi-chun, <i>et al.</i> ( 39 )
Analysis on Influence Factors of River Discharge Overflow Pollution from Pumping Station in Downtown Shanghai .....	XU Lian-jun, <i>et al.</i> ( 42 )
Study on Planning Technology of Rainwater Storage Tank in Guangzhou .....	ZHU Li-ming( 46 )
Research and Progress of Stormwater Management Models Based on Low-impact Development .....	WANG Jian-long, <i>et al.</i> ( 50 )
Study on Control of Pollution from Combined Sewer Overflows in Area between East Lake and Sand Lake of Wuhan .....	CHEN Xiong-zhi, <i>et al.</i> ( 55 )
Research on Runoff Pollution Load and First Flush Effect of Jingcheng Highway .....	LI Jun-qi, <i>et al.</i> ( 59 )

### DESIGN EXPERIENCES

Study on Design and Effect of Estuary Ecological Floating Bed Pilot Project at Dianshan Lake .....	SUN Cong-jun, <i>et al.</i> ( 64 )
Application of Combined Process of Activated Sludge and Microfiltration Membrane to Upgrading and Reconstruction Project of Shiyan Municipal Sewage Treatment Plant .....	ZHU Yu, <i>et al.</i> ( 69 )
Design of Leachate Treatment Project in Chengdu Solid Waste Landfill Site .....	ZHU Yong, <i>et al.</i> ( 73 )
Design and Operation of Wastewater Treatment Plant in an Industrial Park in Chengdu City .....	LI Hong( 76 )
Design and Operation of Disperse Dye Wastewater Treatment .....	HUANG Yun-jin, <i>et al.</i> ( 80 )
Design of Dye Wastewater Treatment Process in Large-scale Chemical Industry Park .....	CHEN Ke-ling( 83 )
Design of First-stage Project of Integrated Wastewater Treatment Plant in Chengde Iron and Steel Company .....	SUN Hong-ye, <i>et al.</i> ( 88 )

## **PROJECT CASES**

Applicability Analysis and Suggestion on Current Hot-water Consumption Criteria .....	QU Li-juan, <i>et al.</i> (92)
Rural Domestic Sewage Treatment System Based on Plant Absorption .....	HU Min-hua, <i>et al.</i> (96)
A Case of Wastewater Treatment Project of a Pharmaceutical Company in Northern China .....	XIAO Cheng, <i>et al.</i> (99)
High Solution Bacteria – A/O Process for Treatment of Chemical Integrated Wastewater .....	FENG Ping, <i>et al.</i> (102)
Application of PLC Field Bus and Serial Communication Network to Reconstruction of Underpass Pumping Station .....	WEI Zuo-cheng( 106)
Application of HYBAS <sup>TM</sup> in Upgrading of Wastewater Treatment Plant .....	WANG Hai-liang, <i>et al.</i> (109)
Electric Control Process for Sludge Water Treatment in Water Supply Plant .....	LU Zhong-hua, <i>et al.</i> (114)
Introduction to Demonstration Project for Co-incineration of Sludge from Yantai WWTP in Thermal Power Plant .....	HOU Chun-xing, <i>et al.</i> (117)

## **WATER CONSERVATION AND REUSE**

Treatment and Reuse of Wastewater from Jinan Diesel Engine Factory .....	ZHANG Xia, <i>et al.</i> (121)
--	--------------------------------

## **ANALYSIS AND MONITORING**

Determination of Polyacrylamide during Composting of Dewatered Sludge .....	SHENG Qian, <i>et al.</i> (124)
Improvement of Treatment Method before Determination of Metal Elements in Sludge .....	HE Chi-ping, <i>et al.</i> (128)
Application of HACH Water Quality Analytical Instruments in Reclaimed Water Plant .....	FANG Wen, <i>et al.</i> (131)

## **ENERGY SAVING AND EMISSION REDUCTION**

Case Analysis on Energy Saving and Consumption Reduction Technologies throughout Entire Process in WWTP .....	LIU Li-xiang, <i>et al.</i> (134)
Control Methods for Optimized Energy-saving of Wastewater Treatment Plant .....	XU Guang-ning, <i>et al.</i> (139)

## **OPERATION AND MANAGEMENT**

Operation Problems and Countermeasures of Municipal Wastewater Treatment Plant at Low Organic Loading .....	WEN Rong-ping, <i>et al.</i> (144)
Acidification and Restart-up of UBF Reactor Treating Alcohol Wastewater .....	JIA Xiao-feng, <i>et al.</i> (147)

## **CONSTRUCTION AND SUPERVISION**

Several Problems in Design of Horizontal Directional Drilling Technology for Installation of Water and Wastewater Pipeline .....	YANG Ming( 151)
---	-----------------