

目 次

● 泵理论与技术

双流道泵内压力脉动的 CFD 计算及测试

刘厚林, 任 芸, 谈明高, 陆斌斌, 舒敏骅(277)

中比转速离心泵叶轮的优化设计及数值模拟

谭 磊, 曹树良(282)

离心泵非定常流动计算及性能预测

周凌九, 王占民, 江东智(286)

核电站余热排出泵热冲击回路设计

孔繁余, 王 婷, 黄道见, 王文廷(291)

混流泵叶轮流动性能数值模拟和叶型优化设计

谢 蓉, 单玉姣, 王晓放(295)

不同断面型式蜗壳对离心泵性能影响的数值模拟

郭鹏程, 罗兴铸, 周 鹏, 丁 况(300)

弱辐射下光伏离心泵的流动计算与试验

丛小青, 贾自强, 张 建, 王光辉(305)

基于大涡模拟的离心泵蜗壳内压力脉动特性分析

袁建平, 付燕霞, 刘 阳, 张金凤, 裴 吉(310)

● 流体工程

基于数值仿真的蝶阀性能对比分析

冯卫民, 肖光宇, 袁 波, 左 磊(315)

冷凝液输送泵用铰接式单向阀流场数值模拟

张生昌, 张金海, 郑水华, 邓鸿英, 寿 涛(320)

碳化循环泵的机械密封设计

何玉杰, 张 丽, 黄铭科, 刘三华, 张军辉(325)

基于 CFD 的螺旋槽干气密封端面流场流态分析

丁雪兴, 富影杰, 张 静, 张伟政, 俞树荣(330)

桨叶式搅拌槽内部流场数值模拟及 PIV 试验

王春林, 吕亚云, 史亚婷, 丁 剑, 李长军(335)

● 泵站工程与给排水

栏目主持人: 仇宝云

大套第三抽水站辅助设备能耗计算分析

陆永泉, 朱庆元, 仇宝云, 杨兴丽, 冯晓莉, 董 波(340)

扩散导叶对贯流泵装置性能影响

冯旭松, 金 燕, 刘 超(344)

基于流固耦合的泵组管系振动分析

包家汉, 潘紫微, 徐培民, 戚晓利(349)

● 节水灌溉工程

涌泉根灌技术研究与应用

吴普特, 朱德兰, 汪有科(354)

喷微灌产品计量与计数抽样方案比较分析

赵 华, 许 迪(358)

精确对靶喷雾施药的靶标微波探测试验

陈志刚, 王玉光, 杜彦生, 李 强(364)

CONTENTS

CFD calculation and test of pressure fluctuation in double-channel pump	Liu Houlin, Ren Yun, Tan Minggao, Lu Binbin, Shu Minhua(277)
Optimal design and numerical simulation for impeller of centrifugal pump with medium-high specific speed	Tan Lei, Cao Shuliang(282)
Computation of unsteady flow and performance prediction for centrifugal pump	Zhou Lingjiu, Wang Zhanmin, Jiang Dongzhi(286)
Design for thermal shock loop of residual heat removal pump in nuclear power plant	Kong Fanyu, Wang Ting, Huang Daojian, Wang Wenting(291)
Numerical simulation on flow performance and blade profile optimal design of mixed-flow pump impeller	Xie Rong, Shan Yujiao, Wang Xiaofang(295)
Numerical simulation of influence of volute with different sections on centrifugal pump performance	Guo Pengcheng, Luo Xingqi, Zhou Peng, Ding Kuang(300)
Flow calculation and experiment of photovoltaic centrifugal pump under weak radiation	Cong Xiaoqing, Jia Ziqiang, Zhang Jian, Wang Guanghui(305)
Analysis on pressure fluctuation within volute of centrifugal pump based on large eddy simulation	Yuan Jianping, Fu Yanxia, Liu Yang, Zhang Jinfeng, Pei Ji(310)
Comparative analysis of butterfly performance based on numerical simulation	Feng Weimin, Xiao Guangyu, Yuan Bo, Zuo Lei(315)
Numerical simulation of hinge type cone-way valve in condensate delivery pump	Zhang Shengchang, Zhang Jinhai, Zheng Shuihua, Deng Hongying, Shou Tao(320)
Design of mechanical seal used in carbonylation recycle pump	He Yujie, Zhang Li, Huang Mingke, Liu Sanhua, Zhang Junhui(325)
Fluid state analysis on flow field of gas seal with spiral groove based on CFD	Ding Xuexing, Fu Yingjie, Zhang Jing, Zhang Weizheng, Yu Shurong(330)
Numerical simulation and PIV test of internal flow field in paddle stirred tank	Wang Chunlin, Lü Yayun, Shi Yating, Ding Jian, Li Changjun(335)
Calculation and analysis of auxiliary equipment dissipation energy in 3rd Datao pumping station	Lu Yongquan, Zhu Qingyuan, Qiu Baoyun, Yang Xingli, Feng Xiaoli, Dong Bo(340)
Effects of diffusion guide vane on performance of tubular pump system	Feng Xusong, Jin Yan, Liu Chao(344)
Vibration analysis on a pipe system of pumps based on fluid-structure interaction	Bao Jiahan, Pan Ziwei, Xu Peimin, Qi Xiaoli(349)
Research and application of bubbled-root irrigation	Wu Pute, Zhu Delan, Wang Youke(354)
Comparative analysis between acceptance sampling by variable and by attributes for sprinkler and micro irrigation products	Zhao Hua, Xu Di(358)
Microwave target detecting experiment for precise pesticide spraying	Chen Zhigang, Wang Yuguang, Du Yansheng, Li Qiang(364)