

· 面向双碳目标的环保型电力设备 ·	栏目主编 贾申利, 肖先勇, 周凯	
专栏评述: 面向双碳目标的环保型电力设备	贾申利, 肖先勇, 周凯	1
面向新型电力系统的微磁场光学感知技术	张嘉伟, 魏晓飞, 蒙轩, 付庚, 叶子帆	3
GIS设备用表带触指电连接结构接触电阻的分形理论计算与分析	杨为, 朱太云, 任汀, 王青于, 靳守锋	11
基于导线径向温度和蠕变的导线弧垂计算方法	赵隆, 王如水, 代鹏飞, 朱超, 黄新波	21
高热导BNNS/ANF复合绝缘纸的结构设计及性能分析	赵莉华, 滕富莉, 卓然, 高萌, 任俊文	30
射频和千赫兹驱动的毫米间隙放电的仿真研究	宁文军, 李荣辉, 沈雪明, 黄小龙, 赵莉华, 贾申利	38
在极不均匀电场下变压器油中气泡运动过程及回旋现象	杨昊, 周思佳, 张璐, 赵恒, 曹雯, 陈晋鹏	47
ZSM-5分子筛对C <sub>6</sub> F <sub>12</sub> O/CO <sub>2</sub> 混合气体及其过热分解产物吸附性能研究	田双双, 王家浩, 袁子安, 张晓星, 靳小平, 刘伟豪, 邓广宇	57
基于多物理场仿真和VIKOR决策的干式铁心电抗器多目标优化	袁发庭, 曾继皓, 姜岚, 陈炜, 姬睿氢, 唐波	67
交联度对XLPE/OMMT纳米复合材料水树枝老化特性的影响	董芸滋, 高媛, 李秀峰, 董瑞雪, 刘正第, 韩圣斌	79
“面向双碳目标的环保型电力设备”专栏征稿启事	本刊编辑部	89
· 河流保护与治理 ·	栏目主编 聂锐华	
水坝泄水气体过饱和对鱼类影响及减缓技术研究综述	李然, 李克锋, 冯镜洁, 王远铭	91
山区多沙河流漂石河段洲滩发育特征试验研究	叶晨, 王协康	102
边滩漂石河流水沙输移及河床响应数值分析	雷明, 叶晨, 王协康	110
基于改进SSD模型和自适应滤波算法的水面漂浮物目标检测跟踪方法	陈任飞, 彭勇, 吴剑, 李昱, 岳廷秀	119
黄河下游河道滩岸崩退与淤长过程的耦合模拟	王英珍, 夏军强, 邓珊珊, 周美蓉	130
· 土木工程 ·		
基于双参数地基的隧道预支护拱棚壳体力学模型	石钰锋, 张涛, 曹成威, 阳军生, 陈祥胜	142
颗粒粒径对立体格栅网-砂界面剪切特性影响	童艳光, 刘文召, 刘飞禹, 武文静, 蔡增蛟, 张亿凯	153
粗粒料静止侧压力系数及其变形特性试验	朱俊高, 蒯青青, 王思睿, 褚福永	162
重复冲击下高温后橡胶自密实混凝土动态力学性能	刘志恒, 陈徐东, 胡良鹏, 宁英杰	169
考虑损伤累积的圆钢管本构模型力学行为特点与数值分析	贺盛, 周奕彤, 夏鑫, 杨红涛, 于鹏	179
基于自适应卡尔曼滤波加速度与位移融合的结构位移实时估计	曾竞聪, 施袁锋, 戴靠山, 廖光明	188
· 水利工程 ·		
复杂地基重力坝与胶凝砂砾石坝变形破坏对比分析	丁泽霖, 王肖楠, 张宏洋, 王婧, 包闯	197
基于PIV的明渠紊流压强场测量技术研究	王忠祥, 陈启刚, 段炎冲, 钟强	207
· 电气工程 ·		
基于CFSFDP图拉普拉斯算法的非侵入式负荷监测方法	林平川, 路磊, 谷超, 冯俊国, 张仕文, 杨顺尧, 于丹, 郑迪文, 汪颖	216
· 机械工程 ·		
驱动桥准双曲面齿轮传动系统振动特性分析	陈忠敏, 侯力, 吴阳, 魏永峭, 赵斐, 马友政, 夏立峰	224

---

· ENVIRONMENTALLY FRIENDLY POWER EQUIPMENT FOR CARBON PEAKING AND CARBON NEUTRALITY GOALS ·	
<i>Column Editor JIA Shenli, XIAO Xianyong, ZHOU Kai</i>	
Column Review: Environmentally Friendly Power Equipment for Carbon Peaking and Carbon Neutrality Goals .....	<i>JIA Shenli, XIAO Xianyong, ZHOU Kai</i> 1
Optical Sensing Technology of Micro-magnetic Field for the New Power System .....	<i>ZHANG Jiawei, WEI Xiaofei, MENG Xuan, FU Geng, YE Zifan</i> 3
Calculation and Analysis of the Electrical Contact Resistance of the Strap Contacts Used in GIS Equipment Based on the Fractal Model .....	<i>YANG Wei, ZHU Taiyun, REN Ting, WANG Qingyu, JIN Shoufeng</i> 11
Calculation Method of Conductor Sag Based on Radial Temperature and Creep .....	<i>ZHAO Long, WANG Rushui, DAI Pengfei, ZHU Chao, HUANG Xinbo</i> 21
Structure Design and Performance Analysis of High Thermal Conductivity BNNS/ANF Composite Insulation Paper .....	<i>ZHAO Lihua, TENG Fuli, ZHUO Ran, GAO Meng, REN Junwen</i> 30
Simulation of the Discharges in Millimetre Gap Driven by Radio-frequency and Kilohertz AC Voltages .....	<i>NING Wenjun, LI Ronghui, SHEN Xueming, HUANG Xiaolong, ZHAO Lihua, JIA Shenli</i> 38
Movement Process and Gyration Phenomenon of Bubbles in Transformer Oil Under Extremely Inhomogeneous Electric Field .....	<i>YANG Hao, ZHOU Sijia, ZHANG Lu, ZHAO Heng, CAO Wen, CHEN Jinpeng</i> 47
Adsorption Properties of ZSM-5 Molecular Sieve for C <sub>6</sub> F <sub>12</sub> O/CO <sub>2</sub> Mixtures and Its Decomposition Products of Overheating Fault .....	<i>TIAN Shuangshuang, WANG Jiahao, YUAN Zian, ZHANG Xiaoxing, JIN Xiaoping, LIU Weihao, DENG Guangyu</i> 57
Multi-objective Optimization of the Dry Core Reactor Based on Multi-physical Field Simulation and VIKOR Decision .....	<i>YUAN Fating, ZENG Jihao, JIANG Lan, CHEN Wei, JI Ruiqing, TANG Bo</i> 67
Effect of Crosslinking Degree on Water-Tree Aging Characteristics of XLPE/OMMT Nanocomposites .....	<i>DONG Yunzi, GAO Yuan, LI Xiufeng, DONG Ruixue, LIU Zhengdi, HAN Shengbin</i> 79
Contributions Wanted: Environmentally Friendly Power Equipment for Carbon Peaking and Carbon Neutrality Goals .....	<i>Editorial Department</i> 89
· RIVER PROTECTION AND REGULATION ·	
<i>Column Editor NIE Ruihua</i>	
Review on the Effect of Dissolved Gas Supersaturation of Dam Spill on Fishes and its Mitigation Measures .....	<i>LI Ran, LI Kefeng, FENG Jingjie, WANG Yuanming</i> 91
Experimental Study on Characteristics of Boulder Bars Evolution in Mountainous Sediment-laden River .....	<i>YE Chen, WANG Xiekang</i> 102
Simulation Study on the Influence of Boulders on Flow-Sediment Transport and Riverbed Adjustment in a Mountainous River .....	<i>LEI Ming, YE Chen, WANG Xiekang</i> 110
Detection and Tracking Method of Floating Objects on Water Surface Based on Improved SSD Model and Adaptive Filtering Algorithm .....	<i>CHEN Renfei, PENG Yong, WU Jian, LI Yu, YUE Tingxiu</i> 119
Coupled Modelling of Bank Erosion and Accretion in the Lower Yellow River .....	<i>WANG Yingzhen, XIA Junqiang, DENG Shanshan, ZHOU Meirong</i> 130
· CIVIL ENGINEERING ·	
Mechanical Shell Model of Tunnel Arch Shed Pre-support Based on Two-parameter Foundation .....	<i>SHI Yufeng, ZHANG Tao, CAO Chengwei, YANG Junsheng, CHEN Xiangsheng</i> 142
Effect of Particle Size on Shear Characteristics of Three-dimensional Geogrid-Sand Interface .....	<i>TONG Yanguang, LIU Wenzhao, LIU Feiyu, WU Wenjing, CAI Zengjiao, ZHANG Yikai</i> 153
Experiment of Coefficient of Earth Pressure At-rest of Coarse-Grained Soil and Its Deformation Behavior .....	<i>ZHU Jungao, KUAI Qingqing, WANG Sirui, CHU Fuyong</i> 162
Investigation on the Dynamic Mechanical Properties of Thermally Treated Rubberized Self-compacting Concrete Under Repeated Impact .....	<i>LIU Zhiheng, CHEN Xudong, HU Liangpeng, NING Yingjie</i> 169
Mechanical Performance Characteristics and Numerical Analysis of Constitutive Model for Circular Steel Pipes Considering Damage Accumulation .....	<i>HE Sheng, ZHOU Yitong, XIA Xin, YANG Hongtao, YU Peng</i> 179
Real-time Structural Displacement Estimation by Fusing Acceleration and Displacement Data with Adaptive Kalman Filter .....	<i>ZENG Jingcong, SHI Yuanfeng, DAI Kaoshan, LIAO Guangming</i> 188
· HYDRAULIC ENGINEERING ·	
Comparative Analysis of Deformation and Failure of Gravity Dam with Complex Foundation and Cemented Sand-gravel Dam .....	<i>DING Zelin, WANG Xiaonan, ZHANG Hongyang, WANG Jing, BAO Chuang</i> 197
PIV Based Pressure Field Measurement Technique for Open-channel Turbulence .....	<i>WANG Zhongxiang, CHEN Qigang, DUAN Yanchong, ZHONG Qiang</i> 207
· ELECTRICAL ENGINEERING ·	
Non-intrusive Load Monitoring Method Based on CFSFDP Graph Laplace Algorithm .....	<i>LIN Pingchuan, LU Lei, GU Chao, FENG Junguo, ZHANG Shiwen, YANG Shunyao, YU Dan, ZHENG Diwen, WANG Ying</i> 216
· MECHANICAL ENGINEERING ·	
Vibration Characteristics Analysis of Hypoid Gear Transmission System for Drive Axle .....	<i>CHEN Zhongmin, HOU Li, WU Yang, WEI Yongqiao, ZHAO Fei, MA Youzheng, XIA Lifeng</i> 224