核动力维

第 41 卷 第 4 期(2020)

·全国中文核心期刊 ·中国科学引文数据库源期刊 ·美国 EI 数据库收录 ·中国学术期刊综合评价数据库源期刊

目 次

| 特约稿 | | | | | | | | |
|--|-----|---------|------------|------------|------------|--------------|---------------|--------|
| 数字反应堆发展与挑战 | 余纟 | I星 | 李. | 文杰 | 柴 | 烧明 | 等 | (001) |
| 反应堆物理 | | | | | | | | |
| 基于 OpenFOAM 的中子输运动力学求解器 ntkFoam 研究 | | | | | | | | |
| | 马 | 宇 | 王 | 亚辉 | 芦 | 韡 | 等 | (008) |
| 基于 FLUENT 的多物理场耦合研究 | | .王 | 坤 | 董秀 | 臣 | 张 | 鑫 | (012) |
| CPU-GPU 协同计算在 MOC 中子输运异构并行计算中的应用研究 | ; | | | | | | | |
| | 宋(| 凬涛 | 张 | 志俭 | 张 | 乾 | 等 | (017) |
| 压水堆二次中子源替代一次中子源的初步可行性分析 | | | | | | | | , |
| | | | | 苏耿 | 华 | 石夏 | 青 | (022) |
| CNP650 长燃料循环长短交替运行管理研究 | | | | | • | | | (-) |
| | 廖 | 鸣寓 | 干 | 颖锐 | Ŧ: | 永明 | 等 | (026) |
| 福清核电厂基于堆外核仪表系统中间量程测量的动态刻棒试验 | ,27 | 300 | , | 17. 00 | | 34.73 | ٠,٠ | (020) |
| | | 孟 | 小 锋 | 围水 | ٦ĸ | 茲爿 | 4 日日 - | (030) |
| 西安脉冲堆数字化功率调节系统自动控制方法研究 | | ш. | / U L∓ | 4/ | v | ᅏᄼ | . P/ J | (050) |
| | 214 | 白 | = | 建纸 | # Y | 萂 | 笙 | (034) |
| 基于蒸汽轮机的非能动 IVR 策略研究 | | | | | | | | , , |
| 超临界水冷堆燃料组件及堆芯方案简化设计研究 | ⊐> | (H // J | m. | Л П | 76 | + | ਚ | (041) |
| | 4db | 石 | 古. | ·立+子 | ᆂ | ,щ | ~~ | (0.45) |
| ************************************** | 幼 | 栢石 | 复/ | | Н | 쁘 | 寺 | (045) |
| 热工与水力 | | | | | | | | |
| 低功率条件下低高度差开式自然循环流动模式研究 | * | фП | 7.1. : | 7±.1=7 | ±/ | 47 | ** | (0.50) |
| | …学 | 毅 | 孙; | 建判 | 蚁 | | 寺 | (050) |
| 三环路压水堆压力容器上腔室交混矩阵数值研究 | | _ | _ | | | | | |
| | …冞 | 磊 | 们 | 可艳 | 桯 | 色化 | 等 | (055) |
| 波形板壁面液膜的神经网络及混沌特性分析 | | | | | | | | |
| | | | | 博文 | | | | (060) |
| 液滴撞击干燥倾斜壁面铺展实验研究 | | | | 博 | | | | (064) |
| 疏水孔对旋叶分离器分离效率影响研究 | …徐 | 晗 | 路铂 | 铭超 | 熊王 | 参琴 | 等 | (070) |
| 窄缝通道内过冷条件下单蒸汽泡尾流特性实验研究 | | | | | | | | |
| | …张和 | 间琴 | 黄 | 彦平 | 昝 | 元锋 | 等 | (076) |
| 大管径主管上旁支管流致声共振实验研究 | | | | | | | | |
| | …黄 | 超 | 张 | 锴 | 肖 | 瑶 | 等 | (079) |
| 核燃料及反应堆结构材料 | | | | | | | | |
| 锆合金包壳和 GH4169 镍基合金的微动摩擦磨损性能研究 | | | | | | | | |
| | | | | | | 高 | 雯 | (085) |

| 告合金氧化膜弹性模量的测定 结构与力学 | 张君 | | 龙 | 中生 | 肖 | 红星 | 等 | (091) |
|--|-------------|----------------|--------------|---------------|---------------|---------|----------|--------|
| 严重事故下预应力混凝土安全壳非线性分析及性能评估 | 金 | 松 | 李 | 忠诚 | 蓝 | 天云 | 等 | (096) |
| 核设备抗震鉴定试验中功率谱密度检验方法分析评估 | | | | | | | | |
| | | | | | | | | (101) |
| 高温气冷堆蓄电池组地震易损性研究 | 姜 | 包尔 | 赵 | 军 | 王 | 海涛 | 等 | (105) |
| 地震波空间相干效应对核电厂土与结构相互作用分析的影响 | | | | | | | | |
| | | 姜 | 微 | 屈云 | 光 | 徐征 | 宇 | (111) |
| 安全与控制 | | | | | | | | |
| 核电厂地震 PSA 中 HRA 方法研究 | | | | .王晗 | 丁 | 梁小 | 王 | (116) |
| 基于 PSA 的非能动余热排出系统可靠性研究 | | | | | | | | |
| | 赵新 | 斩文 | 郭 | 海宽 | 蔡 | 琦 | 等 | (122) |
| 核电厂临时设备投运人员可靠性评估模型 | 陈 | 帅 | 张 | 力 | 青 | 涛 | 等 | (128) |
| 冬夏海阳核电厂核素在近海域的迁移路径和浓度分布研究 | | | | | | | | , |
| | 李- | 7招 | 周 | 涛 | 司 | 市成 | 等 | (135) |
| 钠冷快堆碎片床迁移行为底部注气实验研究 | , | , | , , | ,,, | | 1-20 | •.5 | (100) |
| MAY NOTE IN TAXABLE TO STATE OF THE PROPERTY O | 践₹ | 与旧 | 张 | ∖∷ | 苗 | 建品 | 竿 | (141) |
| 西安脉冲堆反应性测量空间效应修正方法研究 | ··/J#* | ⊒. ₽/ J | 710 | Λ11/ | - | 正 压 | 7.7 | (171) |
| | ±ν | 岩 | 갪 | Ė | Τ, | ÷# | ~ | (140) |
| 发 页 丁劫 不过 拉 声 4.4 | ₩Δ | 安鬼 | ΝĊ | 区 | Ι. | 土土 | ₹ | (148) |
| 海岛下垫面对核事故核素扩散影响规律研究 | ≥/ - | | | — <u>+</u> | — | (#c rh | ~~ | (1.52) |
| | 1+ | <u>ነ</u> ኒ | 与 | 兀鍶 | 土1 | | 寺 | (153) |
| 其他 | | | | | | | | |
| 压水堆核电厂 ASG 汽动泵蒸汽入口隔离阀开启故障分析 | | | | | | | | |
| | | | | | | | | ` ′ |
| 核级连续式阀位指示器国产化研制 | 罗t | 世洪 | 王 | 宇翔 | 郭 | | | (166) |
| 对 SINBAD 屏蔽基准题实验的模拟验证 | 黄 | 浩 | 谢 | 芹 | 于 | 涛 | 等 | (170) |
| 基于 SuperMC 的船用反应堆辐射屏蔽结构优化研究 | | | | | | | | |
| | | | | 孙原 | 理 | 宋志 | 浩 | (174) |
| CEPR 机组 CRDM 役前检查方案优化 | | | | | | 邵看 | 兵 | (178) |
| 饱和氧浓度铅铋共晶合金中 Cu/Cu2O 型氧传感器性能研究 | | | | | | | | |
| | 许衤 | 谷恒 | 牛 | 风雷 | 张 | 瑜 | 等 | (181) |
| 基于故障模式分析的核安全级 DCS 冗余功能测试方法 | | | | | | | | , , |
| | 齐 | 敏 | 吴 | 瑶 | 朱 | 剑 | 等 | (185) |
| 核反应堆系统设计技术重点实验室专栏 | -,, | 371 | | | -17 | _, | ., | (-50) |
| 热管冷却反应堆核热力耦合研究 | □≱ | 李亭 | ⊅ II. | 昱的 | 全: | 红足 | 筀 | (191) |
| 燃料组件精细化定位格架模型开发及评价 | | | | | | | | |
| 压水堆核电厂运行模式总体设计研究 | | | | | | | | ` / |
| 企小性核化/ 烂门(天以心) 件以门 Y 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | • • • • • • | | | 压小 | ᄞ | 归並 | . //// | (203) |

编委会主任: 周永茂 编辑部副主任: 黄可东

编委会副主任: 彭士禄 黄国俊 昝云龙 李玉崙 王大中 编 辑: 马 蓉 张明军 刘 君 张祚豪

 王乃彦 潘自强 赵 华 杨 岐
 杨灵芳 孙 凯 杨洁蕾 王中强

 主
 编: 罗琦
 杨灵芳 孙 凯

 副 主 编: 孙玉发 黄土鉴 卜永熙 崔广余 汪胜国
 周 茂 尚作燕

Nuclear Power Engineering Contents

| Digital Reactor: Development and Challenges |
|--|
| |
| |
| Research on Multi-Physics Coupling Based on FLUENT |
| |
| Study on Heterogeneous Computing for MOC Neutron Transport Calculation with CPU-GPU Concurrent Calculation Song Peitao Zhang Zhijian Zhang Qian et al (017) |
| Feasibility Study on Substitution of Primary Neutron Source with Secondary Neutron Source in PWRs |
| |
| Management Study on Alternate Long and Short Cycle of CNP650 Long Cycle Management |
| Liao Hongkuan Yu Yingrui Wang Yongming et al (026) |
| Dynamic Rod Worth Measurement in Fuqing Nuclear Power Plant Based on Intermediate Range of Ex-Core Neutron Flux Measurement System |
| Meng Fanfeng Geng Fei Cai Guangming (030) |
| Research on Automatic Control Method of Power Regulation System of Xi'an Pulsed Reactor |
| Study on Passive IVR Strategy Based on Steam Turbine |
| |
| Research on Simplified Assembly and Core Structure Design of SCWR |
| Yao Lei Xia Bangyang Lu Di et al (045) |
| Study on Flow Patterns of Open Natural Circulation with Low Height Difference under Low Power Conditions Li Yi Sun Jianchuang Peng Hang et al (050) |
| Numerical Analysis of RPV Upper Plenum Mixing Matrix in Three Loop PWRs |
| Song Lei He Xiangyan Cheng Yanhua et al (055) |
| Neural Network and Chaotic Characteristics Analysis of Water Film on Corrugated Plate Wall |
| |
| Experimental Study on Spread of Droplet Impacting on Dry Inclined Wall |
| |
| |
| Experimental Study on Wake of Single Vapor Bubble under Subcooling Condition in a Narrow Channel |
| Zhang Liqin Huang Yanping Zan Yuanfeng et al (076) |
| Experimental Study of Flow-Induced Acoustic Resonance in Side Branch on Large Diameter Pipeline |
| Huang Chao Zhang Kai Xiao Yao et al (079) Fretting Friction Wear Behavior of Zircaloy and Ni-Based GH4169 Alloy |
| Gao Wen (085) |
| Measurement of Elastic Modulus of Zirconium Alloy Oxide Films |
| |
| Nonlinear Analysis and Performance Evaluation of Prestressed Concrete Containment Structure under Severe Accident Condition |
| Jin Song Li Zhongcheng Lan Tianyun et al (096) |
| Analysis of Inspection Methods for Power Spectral Density in Seismic Qualification Test of Equipment in Nuclear Power Plants |
| Sun Yugang Chu Meng Ding Zhenkun et al (101) |
| Fragility Research for Storage Batteries of High Temperature Gas-Cooled Reactor Jiang Zhuoer Zhao Jun WangHaitao et al (105) |
| Effects of Spatial Coherency on Seismic Response of Nuclear Island Structures Considering |
| Soil Structure Interaction Analysis |
| Jiang Wei Qu Yunguang Xu Zhengyu (111) |
| Study on HRA Method in Seismic PSA of Nuclear Power Plants Wang Handing Liang Xiaoyu (116) |
| מדוז וואמונג פוואו פוואום פוןאין |

| Reliability of Passive Residual Heat Removal System Based on PSA |
|--|
| Assessment Model of Operator's Implementation Reliability for Portable Equipment in Nuclear Power Plants Chen Shuai Zhang Li Qing Tao et al (128) |
| Study on Radionuclide Migration Path and Concentration Distribution in Coastal Waters of Haiyang Nuclear Power Plant in Winter and Summer |
| Experimental Study of Debris Bed Relocation in Sodium-Cooled Fast Reactor by Bottom Gas-Injection Method Teng Chunming Zhang Bin Shan Jianqiang et al (141) |
| Research on Spatial Effect Correction Method of Xi'an Pulsed Reactor Reactivity Measurement Zhao Wei Zhang Liang Wang Baosheng et al (148) |
| Effect of Island Underlying Surface on Radionuclide Atmospheric Dispersion under Nuclear Accidents |
| Open Failure Analysis of Parallel Slide Gate Valves in Steam Entrance of Steam Pump for PWR Auxiliary Water Supply System |
| Domestic Development of Nuclear Grade Continuous Valve Position Indicator Luo Shihong Wang Yuxiang Guo Song et al (166) |
| Simulation Verification of SINBAD Shielding Benchmark Experiment Huang Hao Xie Qin Yu Tao et al (170) |
| Research on Radiation Shielding Design Optimization for Ship Reactors Based SuperMC Sun Yuanli Song Zhihao (174) |
| Optimization of Pre-Service Inspection Scheme for CEPR CRDM Xiao Kaihua Shao Chunbing (178) |
| Accuracy and Responsiveness Test Study of Cu/Cu ₂ O Oxygen Sensor in Oxygen Saturated Lead-Bismuth Eutectic Xu Yuheng Niu Fenglei Zhang Yu et al (181) |
| Testing Method of Redundancy Function in Nuclear Safety DCS Based on Failure Mode Analysis Qi Min Wu Yao Zhu Jian et al (185) |
| Neutronic/Thermal-Mechanical Coupling in Heat Pipe Cooled Reactor |
| Development and Assessment of Improved Spacer Grid Model in Rod Bundle Subchannel Liu Wei Liu Yang Li Jie et al (197) |
| Research on Overall Design of Operation Mode in PWR Nuclear Power Plants Cui Huaiming Zhou Jinman (203) |
| · · · |