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基于网络的10MW高温气冷堆仿真系统

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收稿日期 2003-9-1 修回日期 网络版发布日期:

摘要 仿真系统基于计算机网络环境,可对10 MW高温气冷堆(HTR 10)的堆芯、主回路系统和蒸汽发生器等部件进行分析计算,模拟稳态和瞬态过程,并以图形界面动态显示仿真过程。同时可对仿真过程进行回放,对仿真数据结果进行分析并以二维、三维图形显示。该仿真系统不仅对高温气冷堆的工程设计、安全分析和人员培训有重要作用,且可对HTR 10主控室的操作人员进行现场支持及各项研究提供帮助。

关键词 [高温气冷堆](#) [仿真系统](#) [网络](#)

分类号 [TL411](#)

Network-based Simulation System for 10 MW High Temperature Gas-cooled Reactor

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Abstract The simulation system is based on the network environment. And it is intended to analyze and calculate the physical process of the reactor core, the main loop system and steam generator, etc., as well as to simulate the normal operation and transient accidents. The simulation results are displayed in graphical user interface dynamically. The system can be used as an educational tool to understand the design and operational characteristics of HTR-10, and can also provide online supports for operators in the main control room.

Key words [high temperature gas-cooled reactor](#) [simulation system](#) [network](#)

DOI

通讯作者

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