

A

数字化反应堆功率控制系统

@冯俊婷\$清华大学核能与新能源技术研究院!北京100084 @张良驹\$清华大学核能与新能源技术研究院!北京100084 @李铎\$清华大学核能与新能源技术研究院!北京100084

收稿日期 2004-2-27 修回日期 网络版发布日期:

摘要 数字化技术对提高反应堆功率控制系统的可靠性、安全性和可维护性以及改善人机界面具有重要意义。文章描述一采用数字化技术设计的研究堆功率控制系统,介绍了功率控制方法、实现的功能、系统的结构、功率调节算法以及设计关键技术。由于采用了标准的数字化控制器,使功率控制系统可方便地集成到统一的控制系统中。

关键词 [数字化](#) [反应堆](#) [功率控制](#)

分类号 [TL361](#)

Digital Reactor Power Control System

FENG Jun-ting, ZHANG Liang-ju, LI Duo(Institute of Nuclear and New Energy Technology, Tsinghua University, Beijing 100084, China)

Abstract The reliability, safety and maintainability can be demonstrated and man-machine interface is greatly improved due to the use of digital technology in the realization of the power control system. The paper describes an ongoing research and development project of a power control system for the research reactor based on full digital technology. The contents are concerned in mechanism of power control, realized functions, structure of the system, algorithm for power regulating, and some key techniques taken in the design. Owing to the fact that the same type of digital controllers as the other parts of control system is used in the design, the power control system can be easily integrated into overall reactor control network.

Key words [digital](#) [reactor](#) [power control](#)

DOI

通讯作者

扩展功能

本文信息

- ▶ [Supporting info](#)
- ▶ [\[PDF全文\]\(548KB\)](#)
- ▶ [\[HTML全文\]\(0KB\)](#)
- ▶ [参考文献](#)

服务与反馈

- ▶ [把本文推荐给朋友](#)
- ▶ [文章反馈](#)
- ▶ [浏览反馈信息](#)

相关信息

- ▶ [本刊中 包含“数字化”的 相关文章](#)
- ▶ [本文作者相关文章](#)