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Autore	Pyeon Cheol Ho
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Sommario/riassunto

This open access book is a unique compilation of experimental benchmark analyses of the accelerator-driven system (ADS) at the Kyoto University Critical Assembly (KUCA) on the most recent advances in the development of computational methods. It is devoted especially to nuclear engineers and scientists. Readers will find a detailed description of advanced measurement techniques and calculation methodologies for the ADS with 14 MeV neutrons and high-energy neutrons (with combined use of 100 MeV protons and Pb-Bi target) at KUCA. Additionally, experimental results of nuclear transmutation of minor actinides by ADS and at a critical state are included. Readers also have access to benchmarks of specific ADS experiments with raw data in the Appendix. The book is a valuable resource for the ADS experiments at KUCA which are globally recognized as both static and kinetic studies from the point of view of fundamental research.