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Titolo	Nuclear Reactor Design [[electronic resource] /] / edited by Yoshiaki Oka
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Descrizione fisica	1 online resource (337 p.)
Collana	An Advanced Course in Nuclear Engineering, , 2195-3708
Disciplina	621.48 621.4832
Soggetti	Nuclear energy Energy systems Nuclear chemistry Engineering design Nuclear Energy Energy Systems Nuclear Chemistry Engineering Design
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Fuel Burnup and Reactivity Control -- Nuclear Reactor Calculations -- Core Design of Light Water Reactors -- Core Design of Advanced Reactors.
Sommario/riassunto	This book focuses on core design and methods for design and analysis. It is based on advances made in nuclear power utilization and computational methods over the past 40 years, covering core design of boiling water reactors and pressurized water reactors, as well as fast reactors and high-temperature gas-cooled reactors. The objectives of this book are to help graduate and advanced undergraduate students to understand core design and analysis, and to serve as a background reference for engineers actively working in light water reactors. Methodologies for core design and analysis, together with physical descriptions, are emphasized. The book also covers coupled thermal hydraulic core calculations, plant dynamics, and safety analysis,

allowing readers to understand core design in relation to plant control and safety.

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