

1. Record Nr.	UNINA9910817048403321
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Titolo	Sodium fast reactors with closed fuel cycle // Baldev Raj, P. Chellapandi, P.R. Vasudeva Rao
Pubbl/distr/stampa	Boca Raton, Florida : , : CRC Press, , [2015] ©2015
ISBN	0-429-16779-2
Edizione	[1st ed.]
Descrizione fisica	1 online resource (886 p.)
Disciplina	621.4834
Soggetti	Sodium cooled reactors Fast reactors
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.
Nota di contenuto	Front Cover; Contents; Foreword; Preface; Authors; Chapter 1: Nuclear Fission and Breeding; Chapter 2: Fast Spectrum Reactor vis-à-vis Pressurized Water Reactors; Chapter 3: Description of a Fast Spectrum Reactor; Chapter 4: Unique Worthiness of SFR; Chapter 5: Design Objectives for the Efficient Use of Natural Uranium and Plutonium; Chapter 6: Prospect of Various Types of FSRs; Chapter 7: Choice of Materials and Their Performance; Chapter 8: System and Components; Chapter 9: Design Basis; Chapter 10: Design Validations; Chapter 11: Design Analysis and Methods Chapter 12: Safety Principles and Philosophy Chapter 13: Safety Criteria and Basis; Chapter 14: Event Analysis; Chapter 15: Severe Accident Analysis; Chapter 16: Sodium Safety; Chapter 17: Computer Codes and Validation; Chapter 18: Test Facilities and Programs; Chapter 19: Safety Experiments in Reactors; Chapter 20: Severe Accident Management; Chapter 21: Safety Analysis of PFBR : A Case Study; Chapter 22: Specific Aspects of Civil Structures and Construction; Chapter 23: Manufacturing and Erection of Mechanical Components; Chapter 24: Illustrations from International SFRs Chapter 25: Commissioning Issues : Various Phases and Experiences Chapter 26: SFR Program in Countries; Chapter 27: Feedback from Operating Experiences; Chapter 28: Innovative Reactor Concepts for Future SFRs; Chapter 29: Fuel Cycle for SFRs; Chapter 30:

Decommissioning Aspects; Chapter 31: Material Science and Metallurgy; Chapter 32: Chemical Sensors for Sodium Coolant Circuits; Chapter 33: Robotics, Automation, and Sensors; Chapter 34: Operator Training Simulators for Fast Breeder Reactors; Chapter 35: Economics of SFRs with a Closed Fuel Cycle; Back Cover

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Sommario/riassunto

Sodium Fast Reactors with Closed Fuel Cycle delivers a detailed discussion of an important technology that is being harnessed for commercial energy production in many parts of the world. Presenting the state of the art of sodium-cooled fast reactors with closed fuel cycles, this book: Offers in-depth coverage of reactor physics, materials, design, safety analysis, validations, engineering, construction, and commissioning aspects Features a special chapter on allied sciences to highlight advanced reactor core materials, specialized manufacturing technologies, chemical sensors, in-service inspecti

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