

1. Record Nr.	UNINA9910467848103321
Autore	Abbas Saïd
Titolo	Implicit fractional differential and integral equations : existence and stability / / Said Abbas [and three others]
Pubbl/distr/stampa	Berlin, [Germany] ; ; Boston, [Massachusetts] : , : De Gruyter, , 2018 ©2018
ISBN	3-11-055318-X
Descrizione fisica	1 online resource (362 pages) : illustrations
Collana	De Gruyter Series in Nonlinear Analysis and Applications, , 0941-813X ; ; Volume 26
Disciplina	515.35
Soggetti	Differential equations Existence theorems Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Frontmatter -- Preface -- Contents -- Introduction -- 1 Preliminary Background -- 2 Nonlinear Implicit Fractional Differential Equations -- 3 Impulsive Nonlinear Implicit Fractional Differential Equations -- 4 Boundary Value Problems for Nonlinear Implicit Fractional Differential Equations -- 5 Boundary Value Problems for Impulsive NIFDE -- 6 Integrable Solutions for Implicit Fractional Differential Equations -- 7 Partial Hadamard Fractional Integral Equations and Inclusions -- 8 Stability Results for Partial Hadamard Fractional Integral Equations and Inclusions -- 9 Hadamard-Stieltjes Fractional Integral Equations -- 10 Ulam Stabilities for Random Hadamard Fractional Integral Equations -- Bibliography -- Index
Sommario/riassunto	This book deals with the existence and stability of solutions to initial and boundary value problems for functional differential and integral equations and inclusions involving the Riemann-Liouville, Caputo, and Hadamard fractional derivatives and integrals. A wide variety of topics is covered in a mathematically rigorous manner making this work a valuable source of information for graduate students and researchers working with problems in fractional calculus. ContentsPreliminary Background Nonlinear Implicit Fractional Differential Equations Impulsive Nonlinear Implicit Fractional Differential Equations Boundary

Value Problems for Nonlinear Implicit Fractional Differential Equations
 Boundary Value Problems for Impulsive NIFDE Integrable Solutions for
 Implicit Fractional Differential Equations Partial Hadamard Fractional
 Integral Equations and Inclusions Stability Results for Partial Hadamard
 Fractional Integral Equations and Inclusions Hadamard-Stieltjes
 Fractional Integral Equations Ulam Stabilities for Random Hadamard
 Fractional Integral Equations

2. Record Nr.	UNINA9911006769503321
Autore	Author) IAEA (Corporate
Titolo	Liquid Metal Coolants for Fast Reactors (Reactors Cooled by Sodium, Lead and Lead-bismuth Eutectic)
Pubbl/distr/stampa	Lanham : , : International Atomic Energy Agency, , 2012 ©2012
ISBN	1-5231-3009-1 1-283-98861-5
Edizione	[1st ed.]
Descrizione fisica	1 online resource (95 pages)
Altri autori (Persone)	Editor)IAEA (Corporate
Soggetti	Fast reactors Liquid metal cooled reactors
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Cover -- FOREWORD -- CONTENTS -- 1. INTRODUCTION -- 1.1. BACKGROUND -- 1.2. SCOPE AND OBJECTIVES -- 1.3. STRUCTURE -- 2. SHORT HISTORY OF NUCLEAR POWER DEVELOPMENT -- 3. PHYSICAL AND CHEMICAL PROPERTIES OF COOLANTS (SODIUM, LEAD AND LEAD-BISMUTH ALLOY) -- 3.1. LIQUID METAL DEVELOPMENT (SHORT HISTORY) -- 3.2. PHYSICAL PROPERTIES -- 3.3. CHEMICAL PROPERTIES -- 4. COMPARISON OF DIFFERENT SODIUM AND LEAD COOLANT TECHNOLOGIES -- 4.1. BACKGROUND -- 4.2. SODIUM TECHNOLOGY -- 4.3. LEAD AND LEAD-BISMUTH TECHNOLOGY -- 4.4. CONCLUSION -- 5. THERMOHYDRAULICS OF REACTOR CORE -- 5.1. HYDRODYNAMICS -- 5.2. HEAT TRANSFER -- 5.3. CONCLUSIONS -- 6. COOLANT RADIOACTIVITY -- 6.1. SODIUM RADIOACTIVITY -- 6.2. LEAD AND

LEAD-BISMUTH RADIOACTIVITY -- 6.3. CONCLUSIONS -- 7. LIQUID METAL COOLED FAST REACTOR TECHNOLOGY DEVELOPMENT -- 7.1. INTRODUCTION -- 7.2. OBJECTIVES AND CHALLENGES FOR THE DEVELOPMENT OF ADVANCED LIQUID METAL COOLED FAST REACTOR -- 7.3. FEATURES OF LIQUID METAL COOLED FAST REACTORS -- 7.4. CONCLUSION -- 8. MODULAR LEAD-BISMUTH COOLED SMALL SIZE FAST REACTORS -- 8.1. INTRODUCTION -- 8.2. EXPERIENCE AND OPPORTUNITY TO USE LEAD-BISMUTH EUTECTIC ALLOY AS A FAST REACTORS' COOLANT -- 8.3. BRIEF DESCRIPTION OF EXPERIENCE WITH LEAD-BISMUTH EUTECTIC APPLICATIONS -- 8.4. REACTOR INSTALLATION SVBR-75/100 -- 8.5. BASIC CONCEPTS OF THE NUCLEAR POWER PLANT BASED ON SVBR-75/100 -- 8.6. CONCLUSIONS -- 9. LIQUID LEAD COOLED FAST REACTORS -- 9.1. THE LEAD COOLED FAST REACTOR CONCEPT -- 9.2. NUCLEAR FUEL CYCLE CONCEPT -- 9.3. BREST CONCEPT -- 9.4. BREST-1200 -- REFERENCES -- ABBREVIATIONS -- CONTRIBUTORS TO DRAFTING AND REVIEW.

Sommario/riassunto

The choice of the coolant is one of the main technical issues concerning fast reactors design, since it determines design approach as well as safety, technical and economic characteristics of the system. This publication provides a comprehensive summary of the status of the liquid metal coolant technology development for fast reactors, with regard to basic data and main technological challenges. It starts with historical remarks on the nuclear power development, provides a complete survey of physical and chemical properties of liquid metals and discusses the coolant quality control and thermal-hydraulics studies for both sodium and lead alloys systems. Other chapters elaborate on radioactivity of coolants and describe past experiences as well as current projects. Finally, design objectives, main research and technology development challenges of innovative fast reactor concepts, currently under investigation in Russia, having sodium, lead-bismuth eutectic, and lead as coolant, as well as the status of the respective research and development activities are summarized.
