

Handbook Of Nuclear Engineering Vol 1 Nuclear Engineering Fundamentals Vol 2 Reactor Design Vol 3 Reactor Analysis Vol 4 Reactors Of Waste Disposal And Safeguards

THANK YOU FOR DOWNLOADING **HANDBOOK OF NUCLEAR ENGINEERING VOL 1 NUCLEAR ENGINEERING FUNDAMENTALS VOL 2 REACTOR DESIGN VOL 3 REACTOR ANALYSIS VOL 4 REACTORS OF WASTE DISPOSAL AND SAFEGUARDS** . MAYBE YOU HAVE KNOWLEDGE THAT , PEOPLE HAVE LOOK NUMEROUS TIMES FOR THEIR FAVORITE READINGS LIKE THIS **HANDBOOK OF NUCLEAR ENGINEERING VOL 1 NUCLEAR ENGINEERING FUNDAMENTALS VOL 2 REACTOR DESIGN VOL 3 REACTOR ANALYSIS VOL 4 REACTORS OF WASTE DISPOSAL AND SAFEGUARDS** , BUT END UP IN MALICIOUS DOWNLOADS.

RATHER THAN ENJOYING A GOOD BOOK WITH A CUP OF COFFEE IN THE AFTERNOON, INSTEAD THEY COPE WITH SOME HARMFUL BUGS INSIDE THEIR COMPUTER.

HANDBOOK OF NUCLEAR ENGINEERING VOL 1 NUCLEAR ENGINEERING FUNDAMENTALS VOL 2 REACTOR DESIGN VOL 3 REACTOR ANALYSIS VOL 4 REACTORS OF WASTE DISPOSAL AND SAFEGUARDS IS AVAILABLE IN OUR DIGITAL LIBRARY AN ONLINE ACCESS TO IT IS SET AS PUBLIC SO YOU CAN GET IT INSTANTLY.

OUR DIGITAL LIBRARY SAVES IN MULTIPLE COUNTRIES, ALLOWING YOU TO GET THE MOST LESS LATENCY TIME TO DOWNLOAD ANY OF OUR BOOKS LIKE THIS ONE.

MERELY SAID, THE **HANDBOOK OF NUCLEAR ENGINEERING VOL 1 NUCLEAR ENGINEERING FUNDAMENTALS VOL 2 REACTOR DESIGN VOL 3 REACTOR ANALYSIS VOL 4 REACTORS OF WASTE DISPOSAL AND SAFEGUARDS** IS UNIVERSALLY COMPATIBLE WITH ANY DEVICES TO READ

PHYSICS IN NUCLEAR MEDICINE - SIMON R. CHERRY 2012-04-12

PHYSICS IN NUCLEAR MEDICINE - BY DRs. SIMON R. CHERRY, JAMES A. SORENSON, AND MICHAEL E. PHELPS - PROVIDES CURRENT, COMPREHENSIVE GUIDANCE ON THE PHYSICS UNDERLYING MODERN NUCLEAR MEDICINE AND IMAGING USING RADIOACTIVELY LABELED TRACERS. THIS REVISED AND UPDATED FOURTH EDITION FEATURES A NEW FULL-COLOR LAYOUT, AS WELL AS THE LATEST INFORMATION ON INSTRUMENTATION AND TECHNOLOGY. STAY CURRENT ON CRUCIAL DEVELOPMENTS IN HYBRID IMAGING (PET/CT AND SPECT/CT), AND SMALL ANIMAL IMAGING, AND BENEFIT FROM THE NEW SECTION ON TRACER KINETIC MODELING IN NEURORECEPTOR IMAGING. WHAT'S MORE, YOU CAN REINFORCE YOUR UNDERSTANDING WITH GRAPHICAL ANIMATIONS ONLINE AT WWW.EXPERTCONSULT.COM, ALONG WITH THE FULLY SEARCHABLE TEXT AND CALCULATION TOOLS. MASTER THE PHYSICS OF NUCLEAR MEDICINE WITH THOROUGH EXPLANATIONS OF ANALYTIC EQUATIONS AND ILLUSTRATIVE GRAPHS TO MAKE THEM ACCESSIBLE. DISCOVER THE TECHNOLOGIES USED IN STATE-OF-THE-ART NUCLEAR MEDICINE IMAGING SYSTEMS FULLY GRASP THE PROCESS OF EMISSION COMPUTED TOMOGRAPHY WITH ADVANCED MATHEMATICAL CONCEPTS PRESENTED IN THE APPENDICES. UTILIZE THE EXTENSIVE DATA IN THE DAY-TO-DAY PRACTICE OF NUCLEAR MEDICINE PRACTICE AND

RESEARCH. TAP INTO THE EXPERTISE OF DR. SIMON CHERRY, WHO CONTRIBUTES HIS CUTTING-EDGE KNOWLEDGE IN NUCLEAR MEDICINE INSTRUMENTATION. STAY CURRENT ON THE LATEST DEVELOPMENTS IN NUCLEAR MEDICINE TECHNOLOGY AND METHODS NEW SECTIONS TO LEARN ABOUT HYBRID IMAGING (PET/CT AND SPECT/CT) AND SMALL ANIMAL IMAGING. VIEW GRAPHICAL ANIMATIONS ONLINE AT WWW.EXPERTCONSULT.COM, WHERE YOU CAN ALSO ACCESS THE FULLY SEARCHABLE TEXT AND CALCULATION TOOLS. GET A BETTER VIEW OF IMAGES AND LINE ART AND FIND INFORMATION MORE EASILY THANKS TO A BRAND-NEW, FULL-COLOR LAYOUT. THE PERFECT REFERENCE OR TEXTBOOK TO COMPREHENSIVELY REVIEW PHYSICS PRINCIPLES IN NUCLEAR MEDICINE. HANDBOOK ON NUCLEAR LAW - CARLTON STOIBER 2010

THIS HANDBOOK IS A PRACTICAL AID TO LEGISLATIVE DRAFTING THAT BRINGS TOGETHER, FOR THE FIRST TIME, MODEL TEXTS OF PROVISIONS COVERING ALL ASPECTS OF NUCLEAR LAW IN A CONSOLIDATED FORM. ORGANIZED ALONG THE SAME LINES AS THE HANDBOOK ON NUCLEAR LAW, PUBLISHED BY THE IAEA IN 2003, AND CONTAINING UPDATED MATERIAL ON NEW LEGAL DEVELOPMENTS, THIS PUBLICATION REPRESENTS AN IMPORTANT COMPANION RESOURCE FOR THE DEVELOPMENT OF NEW OR REVISED NUCLEAR LEGISLATION, AS WELL AS FOR INSTRUCTION IN THE FUNDAMENTALS OF NUCLEAR LAW. IT

WILL BE PARTICULARLY USEFUL FOR THOSE MEMBER STATES EMBARKING ON NEW OR EXPANDING EXISTING NUCLEAR PROGRAMMES.

OPTICAL ENGINEERING FUNDAMENTALS - BRUCE H. WALKER 1998

THIS TEXT AIMS TO EXPOSE STUDENTS TO THE SCIENCE OF OPTICS AND OPTICAL ENGINEERING WITHOUT THE COMPLICATIONS OF ADVANCED PHYSICS AND MATHEMATICAL THEORY.

HANDBOOK OF NUCLEAR MEDICINE AND MOLECULAR IMAGING FOR PHYSICISTS - MICHAEL LJUNGBERG 2022-01-24

THIS STATE-OF-THE-ART HANDBOOK, THE FIRST IN A SERIES THAT PROVIDES MEDICAL PHYSICISTS WITH A COMPREHENSIVE OVERVIEW INTO THE FIELD OF NUCLEAR MEDICINE, IS DEDICATED TO INSTRUMENTATION AND IMAGING PROCEDURES IN NUCLEAR MEDICINE. IT PROVIDES A THOROUGH TREATMENT ON THE CUTTING-EDGE TECHNOLOGIES BEING USED WITHIN THE FIELD, IN ADDITION TO TOUCHING UPON THE HISTORY OF THEIR USE, THEIR DEVELOPMENT, AND LOOKING AHEAD TO FUTURE PROSPECTS. THIS TEXT WILL BE AN INVALUABLE RESOURCE FOR LIBRARIES, INSTITUTIONS, AND CLINICAL AND ACADEMIC MEDICAL PHYSICISTS SEARCHING FOR A COMPLETE ACCOUNT OF WHAT DEFINES NUCLEAR MEDICINE. THE MOST COMPREHENSIVE REFERENCE AVAILABLE PROVIDING A STATE-OF-THE-ART OVERVIEW OF THE FIELD OF NUCLEAR MEDICINE EDITED BY A LEADER IN THE FIELD, WITH CONTRIBUTIONS FROM A TEAM OF EXPERIENCED MEDICAL PHYSICISTS INCLUDES THE LATEST

PRACTICAL RESEARCH IN THE FIELD, IN ADDITION TO EXPLAINING FUNDAMENTAL THEORY AND THE FIELD'S HISTORY

MATERIALS FOR A SUSTAINABLE FUTURE - TREVOR M. LETCHER 2012

AIMED AT STUDENTS, LECTURERS, RESEARCHERS, AND POLICY MAKERS, THIS WORK DESCRIBES CURRENT DEVELOPMENTS AND POINTS THE WAY FORWARD FOR NEW DEVELOPMENTS REGARDING MATERIALS IN OUR SOCIETY AND HOW THEY RELATE TO SUSTAINABILITY.

FUNDAMENTALS OF NUCLEAR PHARMACY - GOPAL B. SAHA 2013-04-18

NUCLEAR MEDICINE IS AN EVER CHANGING SUBJECT, AND THE EMPHASIS AND UTILITY OF ONE TYPE OF STUDY IS OFTEN ABRUPTLY SUPPLANTED BY ANOTHER. IN THIS UNSTABLE ENVIRONMENT, THERE IS A SET OF CIRCUMSTANCES THAT OFFERS A BASIC UNIFYING STRUCTURE TO THE ACTIVITIES ENCOUNTERED IN NUCLEAR MEDICINE. THE PIVOTAL IMPORTANCE OF RADIO PHARMACEUTICALS IN THESE ACTIVITIES MAKES A THOROUGH UNDERSTANDING OF THEM PARAMOUNT FOR ALL WHO WOULD PRESCRIBE, DISPENSE, OR IN ANY WAY UTILIZE SUCH MATERIALS. IN THIS VOLUME, THE AUTHOR HAS DISTILLED AN AWESOME BODY OF LITERATURE ON NUCLEAR PHARMACY INTO A CONCISE AND READILY UNDERSTANDABLE TEXTBOOK. IT IS WRITTEN FROM THE VIEWPOINT OF ONE WHO NOT ONLY HAS BROAD EXPERIENCE AND KNOWLEDGE IN NUCLEAR PHARMACY, WHO DAILY GUIDES AND

INSTRUCTS A VARIETY OF STUDENTS IN THE DISCIPLINE, BUT WHO ALSO DIRECTS A CLINICAL NUCLEAR MEDICINE RADIOPHARMACY PROGRAM. IN THIS BOOK HE HAS AVOIDED THE ESOTERIC AND MAINTAINED AN EMPHASIS ON THE PRACTICAL. THE APPROACH IS NOT ENCYCLOPEDIA IN NATURE, AS ADEQUATE REFERENCES REFER THE MORE INTERESTED READER TO APPROPRIATE SOURCES OF DETAILED INFORMATION, BUT ONE WHICH ENSURES THAT THE STUDENTS WILL BE ABLE TO ABSORB THE ESSENTIALS OF NUCLEAR PHARMACY AND PRACTICE IT EFFECTIVELY WITH A BROAD UNDERSTANDING OF THE SUBJECT. AT THE END OF EACH CHAPTER A SET OF QUESTIONS PROVOKES THE READER TO ASSESS THE SUFFICIENCY OF THE KNOWLEDGE GAINED.

HANDBOOK OF GENERATION IV NUCLEAR REACTORS - IGOR PIORO
2016-06-09

HANDBOOK OF GENERATION IV NUCLEAR REACTORS PRESENTS INFORMATION ON THE CURRENT FLEET OF NUCLEAR POWER PLANTS (NPPs) WITH WATER-COOLED REACTORS (GENERATION III AND III+) (96% OF 430 POWER REACTORS IN THE WORLD) THAT HAVE RELATIVELY LOW THERMAL EFFICIENCIES (WITHIN THE RANGE OF 32-36%) COMPARED TO THOSE OF MODERN ADVANCED THERMAL POWER PLANTS (COMBINED CYCLE GAS-FIRED POWER PLANTS - UP TO 62% AND SUPERCRITICAL PRESSURE COAL-FIRED POWER PLANTS - UP TO 55%). MOREOVER, THERMAL EFFICIENCY OF THE CURRENT FLEET OF NPPs WITH WATER-

COOLED REACTORS CANNOT BE INCREASED SIGNIFICANTLY WITHOUT COMPLETELY DIFFERENT INNOVATIVE DESIGNS, WHICH ARE GENERATION IV REACTORS. NUCLEAR POWER IS VITAL FOR GENERATING ELECTRICAL ENERGY WITHOUT CARBON EMISSIONS. COMPLETE WITH THE LATEST RESEARCH, DEVELOPMENT, AND DESIGN, AND WRITTEN BY AN INTERNATIONAL TEAM OF EXPERTS, THIS HANDBOOK IS COMPLETELY DEDICATED TO GENERATION IV REACTORS. PRESENTS THE FIRST COMPREHENSIVE HANDBOOK DEDICATED ENTIRELY TO GENERATION IV NUCLEAR REACTORS REVIEWS THE LATEST TRENDS AND DEVELOPMENTS COMPLETE WITH THE LATEST RESEARCH, DEVELOPMENT, AND DESIGN INFORMATION IN GENERATION IV NUCLEAR REACTORS WRITTEN BY AN INTERNATIONAL TEAM OF EXPERTS IN THE FIELD

HANDBOOK OF PHYSICS - WALTER BENENSON 2006-01-13

HANDBOOK OF PHYSICS IS A VERITABLE TOOLBOX FOR RAPID ACCESS TO A WEALTH OF PHYSICS INFORMATION FOR EVERYDAY USE IN PROBLEM SOLVING, HOMEWORK, AND EXAMINATIONS. THIS COMPLETE REFERENCE INCLUDES NOT ONLY THE FUNDAMENTAL FORMULAS OF PHYSICS BUT ALSO EXPERIMENTAL METHODS USED IN PRACTICE.

FLOW-INDUCED VIBRATION HANDBOOK FOR NUCLEAR AND PROCESS EQUIPMENT - MICHEL J. PETTIGREW 2021-12-09

EXPLAINS THE MECHANISMS GOVERNING FLOW-INDUCED VIBRATIONS AND HELPS ENGINEERS PREVENT FATIGUE AND

FRETTING-WEAR DAMAGE AT THE DESIGN STAGE FATIGUE OR FRETTING-WEAR DAMAGE IN PROCESS AND PLANT EQUIPMENT CAUSED BY FLOW-INDUCED VIBRATION CAN LEAD TO OPERATIONAL DISRUPTIONS, LOST PRODUCTION, AND EXPENSIVE REPAIRS. MECHANICAL ENGINEERS CAN HELP PREVENT OR MITIGATE THESE PROBLEMS DURING THE DESIGN PHASE OF HIGH CAPITAL COST PLANTS SUCH AS NUCLEAR POWER STATIONS AND PETROLEUM REFINERIES BY PERFORMING THOROUGH FLOW-INDUCED VIBRATION ANALYSIS. ACCORDINGLY, IT IS CRITICAL FOR MECHANICAL ENGINEERS TO HAVE A FIRM UNDERSTANDING OF THE DYNAMIC PARAMETERS AND THE VIBRATION EXCITATION MECHANISMS THAT GOVERN FLOW-INDUCED VIBRATION. FLOW-INDUCED VIBRATION HANDBOOK FOR NUCLEAR AND PROCESS EQUIPMENT PROVIDES THE KNOWLEDGE REQUIRED TO PREVENT FAILURES DUE TO FLOW-INDUCED VIBRATION AT THE DESIGN STAGE. THE PRODUCT OF MORE THAN 40 YEARS OF RESEARCH AND DEVELOPMENT AT THE CANADIAN NUCLEAR LABORATORIES, THIS AUTHORITATIVE REFERENCE COVERS ALL RELEVANT ASPECTS OF FLOW-INDUCED VIBRATION TECHNOLOGY, INCLUDING VIBRATION FAILURES, FLOW VELOCITY ANALYSIS, VIBRATION EXCITATION MECHANISMS, FLUIDELASTIC INSTABILITY, PERIODIC WAKE SHEDDING, ACOUSTIC RESONANCE, RANDOM TURBULENCE, DAMPING MECHANISMS, AND FRETTING-WEAR PREDICTIONS. EACH IN-DEPTH CHAPTER CONTAINS THE

LATEST AVAILABLE LAB DATA, A PARAMETRIC ANALYSIS, DESIGN GUIDELINES, SAMPLE CALCULATIONS, AND A BRIEF REVIEW OF MODELLING AND THEORETICAL CONSIDERATIONS. WRITTEN BY A GROUP OF LEADING EXPERTS IN THE FIELD, THIS COMPREHENSIVE SINGLE-VOLUME RESOURCE: HELPS READERS UNDERSTAND AND APPLY TECHNIQUES FOR PREVENTING FATIGUE AND FRETTING-WEAR DAMAGE DUE TO FLOW-INDUCED VIBRATION AT THE DESIGN STAGE COVERS COMPONENTS INCLUDING NUCLEAR REACTOR INTERNALS, NUCLEAR FUELS, PIPING SYSTEMS, AND VARIOUS TYPES OF HEAT EXCHANGERS FEATURES EXAMPLES OF VIBRATION-RELATED FAILURES CAUSED BY FATIGUE OR FRETTING-WEAR IN NUCLEAR AND PROCESS EQUIPMENT INCLUDES A DETAILED OVERVIEW OF STATE-OF-THE-ART FLOW-INDUCED VIBRATION TECHNOLOGY WITH AN EMPHASIS ON TWO-PHASE FLOW-INDUCED VIBRATION COVERING ALL RELEVANT ASPECTS OF FLOW-INDUCED VIBRATION TECHNOLOGY, FLOW-INDUCED VIBRATION HANDBOOK FOR NUCLEAR AND PROCESS EQUIPMENT IS REQUIRED READING FOR PROFESSIONAL MECHANICAL ENGINEERS AND RESEARCHERS WORKING IN THE NUCLEAR, PETROCHEMICAL, AEROSPACE, AND PROCESS INDUSTRIES, AS WELL AS GRADUATE STUDENTS IN MECHANICAL ENGINEERING COURSES ON FLOW-INDUCED VIBRATION. *PROBABILISTIC STRUCTURAL MECHANICS HANDBOOK - C.R.*

SUNDARARAJAN 2012-12-06

THE NEED FOR A COMPREHENSIVE BOOK ON PROBABILISTIC STRUCTURAL MECHANICS THAT BRINGS TOGETHER THE MANY ANALYTICAL AND COMPUTATIONAL METHODS DEVELOPED OVER THE YEARS AND THEIR APPLICATIONS IN A WIDE SPECTRUM OF INDUSTRIES-FROM RESIDENTIAL BUILDINGS TO NUCLEAR POWER PLANTS, FROM BRIDGES TO PRESSURE VESSELS, FROM STEEL STRUCTURES TO CERAMIC STRUCTURES-BECAME EVIDENT FROM THE MANY DISCUSSIONS THE EDITOR HAD WITH PRACTISING ENGINEERS, RESEARCHERS AND PROFESSORS. BECAUSE NO SINGLE INDIVIDUAL HAS THE EXPERTISE TO WRITE A BOOK WITH SUCH A DIVERSE SCOPE, A GROUP OF 39 AUTHORS FROM UNIVERSITIES, RESEARCH LABORATORIES, AND INDUSTRIES FROM SIX COUNTRIES IN THREE CONTINENTS WAS INVITED TO WRITE 30 CHAPTERS COVERING THE VARIOUS ASPECTS OF PROBABILISTIC STRUCTURAL MECHANICS. THE EDITOR AND THE AUTHORS BELIEVE THAT THIS HANDBOOK WILL SERVE AS A REFERENCE TEXT TO PRACTICING ENGINEERS, TEACHERS, STUDENTS AND RESEARCHERS. IT MAY ALSO BE USED AS A TEXTBOOK FOR GRADUATE-LEVEL COURSES IN PROBABILISTIC STRUCTURAL MECHANICS. THE EDITOR WISHES TO THANK THE CHAPTER AUTHORS FOR THEIR CONTRIBUTIONS. THIS HANDBOOK WOULD NOT HAVE BEEN A REALITY WITHOUT THEIR COLLABORATION.

THE PHYSICS OF NUCLEAR REACTORS -

SERGE MARGUET 2018-02-26

THIS COMPREHENSIVE VOLUME OFFERS READERS A PROGRESSIVE AND HIGHLY DETAILED INTRODUCTION TO THE COMPLEX BEHAVIOR OF NEUTRONS IN GENERAL, AND IN THE CONTEXT OF NUCLEAR POWER GENERATION. A COMPENDIUM AND HANDBOOK FOR NUCLEAR ENGINEERS, A SOURCE OF TEACHING MATERIAL FOR ACADEMIC LECTURERS AS WELL AS A GRADUATE TEXT FOR ADVANCED STUDENTS AND OTHER NON-EXPERTS WISHING TO ENTER THIS FIELD, IT IS BASED ON THE AUTHOR'S TEACHING AND RESEARCH EXPERIENCE AND HIS RECOGNIZED EXPERTISE IN NUCLEAR SAFETY. AFTER RECAPPIING A NUMBER OF POINTS IN NUCLEAR PHYSICS, PLACING THE THEORETICAL NOTIONS IN THEIR HISTORICAL CONTEXT, THE BOOK SUCCESSIVELY REVEALS THE LATEST QUANTITATIVE THEORIES CONCERNING: • THE SLOWING-DOWN OF NEUTRONS IN MATTER • THE CHARGED PARTICLES AND ELECTROMAGNETIC RAYS • THE CALCULATION SCHEME, ESPECIALLY THE SIMPLIFICATION HYPOTHESIS • THE CONCEPT OF CRITICALITY BASED ON CHAIN REACTIONS • THE THEORY OF HOMOGENEOUS AND HETEROGENEOUS REACTORS • THE PROBLEM OF SELF-SHIELDING • THE THEORY OF THE NUCLEAR REFLECTOR, A SUBJECT LARGELY IGNORED IN LITERATURE • THE COMPUTATIONAL METHODS IN TRANSPORT AND DIFFUSION THEORIES COMPLEMENTED BY MORE THAN 400 BIBLIOGRAPHICAL REFERENCES, SOME OF WHICH ARE COMMENTED AND

ANNOTATED, AND AUGMENTED BY AN APPENDIX ON THE HISTORY OF REACTOR PHYSICS AT EDF (ELECTRICITÉ DE FRANCE), THIS BOOK IS THE MOST COMPREHENSIVE AND UP-TO-DATE INTRODUCTION TO AND REFERENCE RESOURCE IN NEUTRONICS AND REACTOR THEORY.

FUNDAMENTALS OF NUCLEAR REACTOR PHYSICS - ELMER E. LEWIS

2008-01-18

FUNDAMENTALS OF NUCLEAR REACTOR PHYSICS OFFERS A ONE-SEMESTER TREATMENT OF THE ESSENTIALS OF HOW THE FISSION NUCLEAR REACTOR WORKS, THE VARIOUS APPROACHES TO THE DESIGN OF REACTORS, AND THEIR SAFE AND EFFICIENT OPERATION . IT PROVIDES A CLEAR, GENERAL OVERVIEW OF ATOMIC PHYSICS FROM THE STANDPOINT OF REACTOR FUNCTIONALITY AND DESIGN, INCLUDING THE SEQUENCE OF FISSION REACTIONS AND THEIR ENERGY RELEASE. IT PROVIDES IN-DEPTH DISCUSSION OF NEUTRON REACTIONS, INCLUDING NEUTRON KINETICS AND THE NEUTRON ENERGY SPECTRUM, AS WELL AS NEUTRON SPATIAL DISTRIBUTION. IT INCLUDES AMPLE WORKED-OUT EXAMPLES AND OVER 100 END-OF-CHAPTER PROBLEMS. ENGINEERING STUDENTS WILL FIND THIS APPLICATIONS-ORIENTED APPROACH, WITH MANY WORKED-OUT EXAMPLES, MORE ACCESSIBLE AND MORE MEANINGFUL AS THEY ASPIRE TO BECOME FUTURE NUCLEAR ENGINEERS. A CLEAR, GENERAL OVERVIEW OF ATOMIC PHYSICS FROM THE STANDPOINT OF REACTOR FUNCTIONALITY AND DESIGN,

INCLUDING THE SEQUENCE OF FISSION REACTIONS AND THEIR ENERGY RELEASE IN-DEPTH DISCUSSION OF NEUTRON REACTIONS, INCLUDING NEUTRON KINETICS AND THE NEUTRON ENERGY SPECTRUM, AS WELL AS NEUTRON SPATIAL DISTRIBUTION AMPLE WORKED-OUT EXAMPLES AND OVER 100 END-OF-CHAPTER PROBLEMS FULL SOLUTIONS MANUAL

HANDBOOK OF PROMPT GAMMA ACTIVATION ANALYSIS - G. MOLNAR
2010-02-23

PROMPT GAMMA ACTIVATION ANALYSIS (PGAA) IS A UNIQUE, NON-DESTRUCTIVE NUCLEAR ANALYTICAL METHOD WITH MULTI-ELEMENT CAPABILITIES. IT IS MOST EFFECTIVE IF INTENSE NEUTRON BEAMS (ESPECIALLY COLD BEAMS) OF NUCLEAR REACTORS ARE USED TO INDUCE THE PROMPT GAMMA RADIATION. BASED LARGELY ON THE AUTHORS' PIONEERING RESEARCH IN COLD NEUTRON PGAA, THE HANDBOOK DESCRIBES THE METHODOLOGY IN SELF-CONTAINED MANNER AND REVIEWS RECENT APPLICATIONS. THE LIBRARY OF PROMPT GAMMA RAY DATA AND SPECTRA FOR ALL NATURAL ELEMENTS IS A UNIQUE AID TO THE PRACTITIONER. THE LEVEL IS UNDERSTANDABLE BY A BROAD AUDIENCE, WHICH FACILITATES TEACHING AND TRAINING. THE HANDBOOK OF PROMPT GAMMA ACTIVATION ANALYSIS IS A COMPREHENSIVE HANDBOOK WRITTEN FOR THOSE PRACTISING THE METHOD, WANTING TO IMPLEMENT IT AT A REACTOR FACILITY, OR JUST LOOKING FOR A POWERFUL NON-DESTRUCTIVE

METHOD OF ELEMENT ANALYSIS. THE BOOK IS ALSO USEFUL FOR NUCLEAR PHYSICS, CHEMISTRY AND ENGINEERING SCIENTISTS, SCHOLARS AND GRADUATE STUDENTS INTERESTED IN NEUTRON-INDUCED GAMMA RAY SPECTROSCOPY AND NUCLEAR ANALYTICAL METHODS.

NUCLEAR REACTOR - JOHN C. LEE
2020-02-26

AN INTRODUCTORY TEXT FOR BROAD AREAS OF NUCLEAR REACTOR PHYSICS NUCLEAR REACTOR PHYSICS AND ENGINEERING OFFERS INFORMATION ON ANALYSIS, DESIGN, CONTROL, AND OPERATION OF NUCLEAR REACTORS. THE AUTHOR—A NOTED EXPERT ON THE TOPIC—EXPLORES THE FUNDAMENTALS AND PRESENTS THE MATHEMATICAL FORMULATIONS THAT ARE GROUNDED IN DIFFERENTIAL EQUATIONS AND LINEAR ALGEBRA. THE BOOK PUTS THE FOCUS ON THE USE OF NEUTRON DIFFUSION THEORY FOR THE DEVELOPMENT OF TECHNIQUES FOR LATTICE PHYSICS AND GLOBAL REACTOR SYSTEM ANALYSIS. THE AUTHOR ALSO INCLUDES RECENT DEVELOPMENTS IN NUMERICAL ALGORITHMS, INCLUDING THE KRYLOV SUBSPACE METHOD, AND THE MATLAB SOFTWARE, INCLUDING THE SIMULINK TOOLBOX, FOR EFFICIENT STUDIES OF STEADY-STATE AND TRANSIENT REACTOR CONFIGURATIONS. IN ADDITION, NUCLEAR FUEL CYCLE AND ASSOCIATED ECONOMICS ANALYSIS ARE PRESENTED, TOGETHER WITH THE APPLICATION OF MODERN CONTROL THEORY TO REACTOR OPERATION. THIS IMPORTANT BOOK: PROVIDES A COMPREHENSIVE INTRODUCTION TO THE

FUNDAMENTAL CONCEPTS OF NUCLEAR REACTOR PHYSICS AND ENGINEERING CONTAINS INFORMATION ON NUCLEAR REACTOR KINETICS AND REACTOR DESIGN ANALYSIS PRESENTS ILLUSTRATIVE EXAMPLES TO ENHANCE UNDERSTANDING OFFERS SELF-CONTAINED DERIVATION OF ρ UID CONSERVATION EQUATIONS WRITTEN FOR UNDERGRADUATE AND GRADUATE STUDENTS IN NUCLEAR ENGINEERING AND PRACTICING ENGINEERS, NUCLEAR REACTOR PHYSICS AND ENGINEERING COVERS THE FUNDAMENTAL CONCEPTS AND TOOLS OF NUCLEAR REACTOR PHYSICS AND ANALYSIS. *MODULAR HIGH-TEMPERATURE GAS-COOLED REACTOR POWER PLANT* - KURT KUGELER 2018-10-05 "MODULAR HIGH-TEMPERATURE GAS-COOLED REACTOR POWER PLANT" INTRODUCES THE POWER PLANTS DRIVEN BY MODULAR HIGH TEMPERATURE GAS-COOLED REACTORS (HTR), WHICH ARE CHARACTERIZED BY THEIR INHERENT SAFETY FEATURES AND HIGH OUTPUT TEMPERATURES. HTRs HAVE THE POTENTIAL TO BE ADOPTED NEAR DEMAND SIDE TO SUPPLY BOTH ELECTRICITY AND PROCESS HEAT, DIRECTLY REPLACING CONVENTIONAL FOSSIL FUELS. THE WORLD IS CONFRONTED WITH TWO DILEMMAS IN THE ENERGY SECTOR, NAMELY CLIMATE CHANGE AND ENERGY SUPPLY SECURITY. HTRs HAVE THE POTENTIAL TO SIGNIFICANTLY ALLEVIATE THESE CONCERNS. THIS BOOK WILL PROVIDE READERS WITH A THOROUGH UNDERSTANDING OF HTRs, THEIR HISTORY, PRINCIPLES, AND FIELDS OF

APPLICATION. THE BOOK IS INTENDED FOR RESEARCHERS AND ENGINEERS INVOLVED WITH NUCLEAR ENGINEERING AND ENERGY TECHNOLOGY.

HANDBOOK OF NUCLEAR MEDICINE AND MOLECULAR IMAGING FOR PHYSICISTS -

MICHAEL LJUNGBERG 2022-01-25
MATHEMATICAL MODELLING IS AN IMPORTANT PART OF NUCLEAR MEDICINE. THEREFORE, SEVERAL CHAPTERS OF THIS BOOK HAVE BEEN DEDICATED TOWARDS DESCRIBING THIS TOPIC. IN THESE CHAPTERS, AN EMPHASIS HAS BEEN PUT ON DESCRIBING THE MATHEMATICAL MODELLING OF THE RADIATION TRANSPORT OF PHOTONS AND ELECTRONS, AS WELL AS ON THE TRANSPORTATION OF RADIOPHARMACEUTICALS BETWEEN DIFFERENT ORGANS AND COMPARTMENTS. IT ALSO INCLUDES COMPUTER MODELS OF PATIENT DOSIMETRY. TWO CHAPTERS OF THIS BOOK ARE DEVOTED TOWARDS INTRODUCING THE CONCEPT OF BIOSTATISTICS AND RADIOBIOLOGY. THESE CHAPTERS ARE FOLLOWED BY CHAPTERS DETAILING DOSIMETRY PROCEDURES COMMONLY USED IN THE CONTEXT OF DIAGNOSTIC IMAGING, AS WELL AS PATIENT-SPECIFIC DOSIMETRY FOR RADIOTHERAPY TREATMENTS. FOR SAFETY REASONS, MANY OF THE METHODS USED IN NUCLEAR MEDICINE AND MOLECULAR IMAGING ARE TIGHTLY REGULATED. THEREFORE, THIS VOLUME ALSO HIGHLIGHTS THE BASIC PRINCIPLES FOR RADIATION PROTECTION. IT DISCUSSES THE PROCESS OF HOW GUIDELINES AND REGULATIONS AIMED AT MINIMIZING RADIATION EXPOSURE ARE

DETERMINED AND IMPLEMENTED BY INTERNATIONAL ORGANISATIONS. FINALLY, THIS BOOK DESCRIBES HOW DIFFERENT DOSIMETRY METHODS MAY BE UTILIZED DEPENDING ON THE INTENDED TARGET, INCLUDING WHOLE-BODY OR ORGAN-SPECIFIC IMAGING, AS WELL AS SMALL-SCALE TO CELLULAR DOSIMETRY. THIS TEXT WILL BE AN INVALUABLE RESOURCE FOR LIBRARIES, INSTITUTIONS, AND CLINICAL AND ACADEMIC MEDICAL PHYSICISTS SEARCHING FOR A COMPLETE ACCOUNT OF WHAT DEFINES NUCLEAR MEDICINE. THE MOST COMPREHENSIVE REFERENCE AVAILABLE PROVIDING A STATE-OF-THE-ART OVERVIEW OF THE FIELD OF NUCLEAR MEDICINE EDITED BY A LEADER IN THE FIELD, WITH CONTRIBUTIONS FROM A TEAM OF EXPERIENCED MEDICAL PHYSICISTS, CHEMISTS, ENGINEERS, SCIENTISTS, AND CLINICAL MEDICAL PERSONNEL INCLUDES THE LATEST PRACTICAL RESEARCH IN THE FIELD, IN ADDITION TO EXPLAINING FUNDAMENTAL THEORY AND THE FIELD'S HISTORY
PEACEFUL USES OF ATOMIC ENERGY - UNITED STATES. CONGRESS. JOINT COMMITTEE ON ATOMIC ENERGY 1956

HANDBOOK OF SMALL MODULAR NUCLEAR REACTORS - DANIEL T.

INGERSOLL 2020-10-22
HANDBOOK OF SMALL MODULAR NUCLEAR REACTORS, SECOND EDITION IS A FULLY UPDATED COMPREHENSIVE REFERENCE ON SMALL MODULAR REACTORS (SMRs), WHICH REFLECTS THE LATEST RESEARCH AND TECHNOLOGICAL ADVANCES IN THE FIELD

FROM THE LAST FIVE YEARS. EDITORS DANIEL T. INGERSOLL AND MARIO D. CARELLI, ALONG WITH THEIR TEAM OF EXPERT CONTRIBUTORS, COMBINE THEIR WEALTH OF COLLECTIVE EXPERIENCE TO UPDATE THIS COMPREHENSIVE HANDBOOK THAT PROVIDES THE READER WITH ALL REQUIRED KNOWLEDGE ON SMRs, EXPANDING ON THE RAPIDLY GROWING INTEREST AND DEVELOPMENT OF SMRs AROUND THE GLOBE. THIS BOOK BEGINS WITH AN INTRODUCTION TO SMRs FOR POWER GENERATION, AN OVERVIEW OF INTERNATIONAL DEVELOPMENTS, AND AN ANALYSIS OF INTEGRAL PRESSURIZED WATER REACTORS AS A POPULAR CLASS OF SMRs. THE SECOND PART OF THE BOOK IS DEDICATED TO SMR TECHNOLOGIES, INCLUDING PHYSICS, COMPONENTS, I&C, HUMAN-SYSTEM INTERFACES AND SAFETY ASPECTS. PART THREE DISCUSSES THE IMPLEMENTATION OF SMRs, COVERING ECONOMIC FACTORS, CONSTRUCTION METHODS, HYBRID ENERGY SYSTEMS AND LICENSING CONSIDERATIONS. THE FOURTH PART OF THE BOOK PROVIDES AN IN-DEPTH ANALYSIS OF SMR R&D AND DEPLOYMENT OF SMRs WITHIN EIGHT COUNTRIES, INCLUDING THE UNITED STATES, REPUBLIC OF KOREA, RUSSIA, CHINA, ARGENTINA, AND JAPAN. THIS EDITION INCLUDES BRAND NEW CONTENT ON THE UNITED KINGDOM AND CANADA, WHERE INTERESTS IN SMRs HAVE INCREASED CONSIDERABLY SINCE THE FIRST EDITION WAS PUBLISHED. THE FINAL PART OF THE BOOK ADDS A NEW ANALYSIS OF THE GLOBAL SMR MARKET

AND CONCLUDES WITH A PERSPECTIVE ON SMR BENEFITS TO DEVELOPING ECONOMIES. THIS AUTHORITATIVE AND PRACTICAL HANDBOOK BENEFITS ENGINEERS, DESIGNERS, OPERATORS, AND REGULATORS WORKING IN NUCLEAR ENERGY, AS WELL AS ACADEMICS AND GRADUATE STUDENTS RESEARCHING NUCLEAR REACTOR TECHNOLOGIES. PRESENTS THE LATEST RESEARCH ON SMR TECHNOLOGIES AND GLOBAL DEVELOPMENTS INCLUDES NEW CASE STUDY CHAPTERS ON THE UNITED KINGDOM AND CANADA AND A CHAPTER ON GLOBAL SMR MARKETS DISCUSSES NEW TECHNOLOGIES SUCH AS FLOATING SMRs AND MOLTEN SALT SMRs

HANDBOOK OF NUCLEAR ENGINEERING - DAN GABRIEL CACUCI 2010-09-14

THIS IS AN AUTHORITATIVE COMPILATION OF INFORMATION REGARDING METHODS AND DATA USED IN ALL PHASES OF NUCLEAR ENGINEERING. ADDRESSING NUCLEAR ENGINEERS AND SCIENTISTS AT ALL LEVELS, THIS BOOK PROVIDES A CONDENSED REFERENCE ON NUCLEAR ENGINEERING SINCE 1958.

NUCLEAR PRINCIPLES IN ENGINEERING - TATJANA JEVREMOVIC 2005-07-01

NUCLEAR ENGINEERING PLAYS AN IMPORTANT ROLE IN VARIOUS INDUSTRIAL, HEALTH CARE, AND ENERGY PROCESSES. MODERN PHYSICS HAS GENERATED ITS FUNDAMENTAL PRINCIPLES. A GROWING NUMBER OF STUDENTS AND PRACTICING ENGINEERS NEED UPDATED MATERIAL TO ACCESS THE TECHNICAL LANGUAGE AND CONTENT OF NUCLEAR PRINCIPLES. NUCLEAR PRINCIPLES IN ENGINEERING IS

WRITTEN FOR STUDENTS, ENGINEERS, PHYSICIANS AND SCIENTISTS WHO NEED UP-TO-DATE INFORMATION IN BASIC NUCLEAR CONCEPTS AND CALCULATION METHODS USING NUMEROUS EXAMPLES AND ILLUSTRATIVE COMPUTER APPLICATION AREAS. DRAWING UPON YEARS OF PRACTICAL EXPERIENCE AND RESEARCH TATJANA JEVIĆ
COVERS NUCLEAR PRINCIPLES AS THEY APPLY TO: - POWER PRODUCTION PROPULSION - ELECTRIC GENERATORS FOR SPACE APPLICATIONS - DIAGNOSTICS AND TREATMENT IN MEDICINE - IMAGING - HOMELAND SECURITY

ERDA ENERGY RESEARCH ABSTRACTS - UNITED STATES. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION. TECHNICAL INFORMATION CENTER 1976

NUREG/CR. - U.S. NUCLEAR REGULATORY COMMISSION 1980

ROUTLEDGE HANDBOOK OF NUCLEAR PROLIFERATION AND POLICY - JOSEPH F. PILAT 2015-05-15

THIS NEW HANDBOOK IS A COMPREHENSIVE EXAMINATION OF THE RICH AND COMPLEX ISSUES OF NUCLEAR PROLIFERATION IN THE EARLY 21ST CENTURY. THE FUTURE OF THE DECADES-LONG EFFORT TO PREVENT THE FURTHER SPREAD OF WEAPONS OF MASS DESTRUCTION IS AT A CROSSROADS TODAY. IF INTERNATIONAL NONPROLIFERATION EFFORTS ARE TO BE SUCCESSFUL, AN INTEGRATED, MULTI-TIERED RESPONSE WILL ALMOST

CERTAINLY BE NECESSARY. A SERIOUS, THOROUGH, AND CLEAR-EYED EXAMINATION OF THE RANGE OF THREATS, CHALLENGES, AND OPPORTUNITIES FACING THE INTERNATIONAL COMMUNITY IS A NECESSARY FIRST STEP. THIS HANDBOOK, WHICH PRESENTS THE MOST UP-TO-DATE ANALYSIS AND POLICY RECOMMENDATIONS ON THESE CRITICAL ISSUES BY RECOGNIZED, LEADING SCHOLARS IN THE FIELD, INTENDS TO PROVIDE SUCH AN EXAMINATION. THE VOLUME IS DIVIDED INTO THREE MAJOR PARTS: PART I PRESENTS DETAILED THREAT ASSESSMENTS OF PROLIFERATION RISKS ACROSS THE GLOBE, INCLUDING SPECIFIC REGIONS AND COUNTRIES. PART II EXPLAINS THE VARIOUS TOOLS DEVELOPED BY THE INTERNATIONAL COMMUNITY TO ADDRESS THESE PROLIFERATION THREATS. PART III ADDRESSES THE PROLIFERATION RISKS AND POLITICAL CHALLENGES ARISING FROM NUCLEAR ENERGY PRODUCTION, INCLUDING POTENTIAL PROLIFERATION BY ASPIRING STATES AND NONSTATE GROUPS. THIS HANDBOOK WILL BE OF GREAT INTEREST TO STUDENTS AND PRACTITIONERS OF NUCLEAR PROLIFERATION, ARMS CONTROL, GLOBAL GOVERNANCE, DIPLOMACY, AND GLOBAL SECURITY AND IR GENERAL.

INTRODUCTION TO NUCLEAR ENGINEERING - JOHN R. LAMARSH 2011-03-04

THE TEXT IS DESIGNED FOR JUNIOR AND SENIOR LEVEL NUCLEAR ENGINEERING STUDENTS. THE THIRD EDITION OF THIS

HIGHLY RESPECTED TEXT OFFERS THE MOST CURRENT AND COMPLETE INTRODUCTION TO NUCLEAR ENGINEERING AVAILABLE. INTRODUCTION TO NUCLEAR ENGINEERING HAS BEEN THOROUGHLY UPDATED WITH NEW INFORMATION ON FRENCH, RUSSIAN, AND JAPANESE NUCLEAR REACTORS. ALL UNITS HAVE BEEN REVISED TO REFLECT CURRENT STANDARDS. IN ADDITION TO THE NUMEROUS END-OF-CHAPTER PROBLEMS, COMPUTER EXERCISES HAVE BEEN ADDED.

THERMODYNAMICS IN NUCLEAR POWER PLANT SYSTEMS - BAHMAN ZOHURI
2015-04-20

THIS BOOK COVERS THE FUNDAMENTALS OF THERMODYNAMICS REQUIRED TO UNDERSTAND ELECTRICAL POWER GENERATION SYSTEMS, HONING IN ON THE APPLICATION OF THESE PRINCIPLES TO NUCLEAR REACTOR POWER SYSTEMS. IT INCLUDES ALL THE NECESSARY INFORMATION REGARDING THE FUNDAMENTAL LAWS TO GAIN A COMPLETE UNDERSTANDING AND APPLY THEM SPECIFICALLY TO THE CHALLENGES OF OPERATING NUCLEAR PLANTS. BEGINNING WITH DEFINITIONS OF THERMODYNAMIC VARIABLES SUCH AS TEMPERATURE, PRESSURE AND SPECIFIC VOLUME, THE BOOK THEN EXPLAINS THE LAWS IN DETAIL, FOCUSING ON PIVOTAL CONCEPTS SUCH AS ENTHALPY AND ENTROPY, IRREVERSIBILITY, AVAILABILITY, AND MAXWELL RELATIONS. SPECIFIC APPLICATIONS OF THE FUNDAMENTALS TO BRAYTON AND RANKINE CYCLES FOR POWER GENERATION ARE CONSIDERED IN-DEPTH,

IN SUPPORT OF THE BOOK'S CORE GOAL- PROVIDING AN EXAMINATION OF HOW THE THERMODYNAMIC PRINCIPLES ARE APPLIED TO THE DESIGN, OPERATION AND SAFETY ANALYSIS OF CURRENT AND PROJECTED REACTOR SYSTEMS. DETAILED APPENDICES COVER METRIC AND ENGLISH SYSTEM UNITS AND CONVERSIONS, DETAILED STEAM AND GAS TABLES, HEAT TRANSFER PROPERTIES, AND NUCLEAR REACTOR SYSTEM DESCRIPTIONS.

HANDBOOKS AND TABLES IN SCIENCE AND TECHNOLOGY - RUSSELL H. POWELL 1994

PROVIDES A BIBLIOGRAPHY OF MORE THAN THREE THOUSAND HANDBOOKS IN VARIOUS ASPECTS OF SCIENCE AND TECHNOLOGY, FROM ABRASIVES AND BAND STRUCTURES TO YIELD STRENGTH AND ZERO DEFECTS

NUCLEAR ENGINEERING HANDBOOK - KENNETH D. KOK 2016-10-03

BUILDING UPON THE SUCCESS OF THE FIRST EDITION, THE NUCLEAR ENGINEERING HANDBOOK, SECOND EDITION, PROVIDES A COMPREHENSIVE, UP-TO-DATE OVERVIEW OF NUCLEAR POWER ENGINEERING. CONSISTING OF CHAPTERS WRITTEN BY LEADING EXPERTS, THIS VOLUME SPANS A WIDE RANGE OF TOPICS IN THE AREAS OF NUCLEAR POWER REACTOR DESIGN AND OPERATION, NUCLEAR FUEL CYCLES, AND RADIATION DETECTION. PLANT SAFETY ISSUES ARE ADDRESSED, AND THE ECONOMICS OF NUCLEAR POWER GENERATION IN THE 21ST CENTURY ARE PRESENTED. THE SECOND EDITION ALSO INCLUDES FULL COVERAGE OF

GENERATION IV REACTOR DESIGNS, AND NEW INFORMATION ON MRS TECHNOLOGIES, SMALL MODULAR REACTORS, AND FAST REACTORS.

PHYSICS FOR RADIATION PROTECTION -

JAMES E. MARTIN 2008-07-11

A HIGHLY PRACTICAL REFERENCE FOR HEALTH PHYSICISTS AND OTHER PROFESSIONALS, ADDRESSING PRACTICAL PROBLEMS IN RADIATION PROTECTION, THIS NEW EDITION HAS BEEN COMPLETELY REVISED, UPDATED AND SUPPLEMENTED BY SUCH NEW SECTIONS AS LOG-NORMAL DISTRIBUTION AND DIGITAL RADIOGRAPHY, AS WELL AS NEW CHAPTERS ON INTERNAL RADIATION DOSE AND THE ENVIRONMENTAL TRANSPORT OF RADIONUCLIDES. DESIGNED FOR READERS WITH LIMITED AS WELL AS BASIC SCIENCE BACKGROUNDS, THE HANDBOOK PRESENTS CLEAR, THOROUGH AND UP-TO-DATE EXPLANATIONS OF THE BASIC PHYSICS NECESSARY. IT PROVIDES AN OVERVIEW OF THE MAJOR DISCOVERIES IN RADIATION PHYSICS, PLUS EXTENSIVE DISCUSSION OF RADIOACTIVITY, INCLUDING SOURCES AND MATERIALS, AS WELL AS CALCULATIONAL METHODS FOR RADIATION EXPOSURE, COMPREHENSIVE APPENDICES AND MORE THAN 400 FIGURES. THE TEXT DRAWS SUBSTANTIALLY ON CURRENT RESOURCE DATA AVAILABLE, WHICH IS CROSS-REFERENCED TO STANDARD COMPENDIUMS, PROVIDING DECAY SCHEMES AND EMISSION ENERGIES FOR APPROXIMATELY 100 OF THE MOST COMMON RADIONUCLIDES ENCOUNTERED

BY PRACTITIONERS. EXCERPTS FROM THE CHART OF THE NUCLIDES, ACTIVATION CROSS SECTIONS, FISSION YIELDS, FISSION-PRODUCT CHAINS, PHOTON ATTENUATION COEFFICIENTS, AND NUCLEAR MASSES ARE ALSO PROVIDED. THROUGHOUT, THE AUTHOR EMPHASIZES APPLIED CONCEPTS AND CAREFULLY ILLUSTRATES ALL TOPICS USING REAL-WORLD EXAMPLES AS WELL AS EXERCISES. A MUCH-NEEDED WORKING RESOURCE FOR HEALTH PHYSICISTS AND OTHER RADIATION PROTECTION PROFESSIONALS.

NUCLEAR ENERGY - DAVID BODANSKY 1996

MARKET: SCIENTISTS IN NUCLEAR ENGINEERING, ENGINEERING STUDENTS, AND GOVERNMENT POLICY MAKERS WITH TECHNICAL BACKGROUNDS. THIS BOOK PRESENTS AN OBJECTIVE VIEW OF NUCLEAR ENERGY AS AN IMPORTANT SOURCE FOR FUTURE ENERGY NEEDS. IT DISCUSSES VARIOUS TYPES OF REACTORS, THE NUCLEAR FUEL CYCLE, THE PROBLEM OF NUCLEAR WASTE DISPOSAL, REACTOR ACCIDENTS, SAFETY AND NEW TYPES OF REACTORS THAT ARE BEING CONSIDERED, AND THE COST OF ELECTRICITY FROM NUCLEAR POWER. ADDITIONAL THEMES INCLUDE THE PROBLEM OF NUCLEAR WEAPONS, THEIR STORAGE, AND, VERY IMPORTANT, THEIR DISPOSAL AS NUCLEAR ARSENALS ARE PARED DOWN.

ERDA ENERGY RESEARCH ABSTRACTS - UNITED STATES. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION

POWER ELECTRONICS HANDBOOK -

MUHAMMAD H. RASHID 2011-01-13
POWER ELECTRONICS, WHICH IS A RAPIDLY GROWING AREA IN TERMS OF RESEARCH AND APPLICATIONS, USES MODERN ELECTRONICS TECHNOLOGY TO CONVERT ELECTRIC POWER FROM ONE FORM TO ANOTHER, SUCH AS AC-DC, DC-DC, DC-AC, AND AC-AC WITH A VARIABLE OUTPUT MAGNITUDE AND FREQUENCY. IT HAS MANY APPLICATIONS IN OUR EVERY DAY LIFE SUCH AS AIR-CONDITIONERS, ELECTRIC CARS, SUB-WAY TRAINS, MOTOR DRIVES, RENEWABLE ENERGY SOURCES AND POWER SUPPLIES FOR COMPUTERS. THIS BOOK COVERS ALL ASPECTS OF SWITCHING DEVICES, CONVERTER CIRCUIT TOPOLOGIES, CONTROL TECHNIQUES, ANALYTICAL METHODS AND SOME EXAMPLES OF THEIR APPLICATIONS. DESIGNED TO APPEAL TO A NEW GENERATION OF ENGINEERING PROFESSIONALS, POWER ELECTRONICS HANDBOOK, 3RD EDITION FEATURES FOUR NEW CHAPTERS COVERING RENEWABLE ENERGY, ENERGY TRANSMISSION, ENERGY STORAGE, AS WELL AS AN INTRODUCTION TO DISTRIBUTED AND COGENERATION (DCG) TECHNOLOGY, INCLUDING GAS TURBINES, GENSETS, MICROTURBINES, WIND TURBINES, VARIABLE SPEED GENERATORS, PHOTOVOLTAICS AND FUEL CELLS, HAS BEEN GAINING MOMENTUM FOR QUITE SOME TIME NOW. SMART GRID TECHNOLOGY. WITH THIS BOOK READERS SHOULD BE ABLE TO PROVIDE TECHNICAL DESIGN LEADERSHIP ON ASSIGNED POWER ELECTRONICS DESIGN PROJECTS AND

LEAD THE DESIGN FROM THE CONCEPT TO PRODUCTION INVOLVING SIGNIFICANT SCOPE AND COMPLEXITY. CONTAINS 45 CHAPTERS COVERING ALL ASPECTS OF POWER ELECTRONICS AND ITS APPLICATIONS THREE NEW CHAPTERS NOW INCLUDING COVERAGE ENERGY SOURCES, ENERGY STORAGE AND ELECTRIC POWER TRANSMISSION CONTRIBUTIONS FROM MORE THAN FIFTY LEADING EXPERTS SPANNING TWELVE DIFFERENT COUNTRIES

COMPREHENSIVE NUCLEAR MATERIALS - 2020-07-22

MATERIALS IN A NUCLEAR ENVIRONMENT ARE EXPOSED TO EXTREME CONDITIONS OF RADIATION, TEMPERATURE AND/OR CORROSION, AND IN MANY CASES THE COMBINATION OF THESE MAKES THE MATERIAL BEHAVIOR VERY DIFFERENT FROM CONVENTIONAL MATERIALS. THIS IS EVIDENT FOR THE FOUR MAJOR TECHNOLOGICAL CHALLENGES THE NUCLEAR TECHNOLOGY DOMAIN IS FACING CURRENTLY: (i) LONG-TERM OPERATION OF EXISTING GENERATION II NUCLEAR POWER PLANTS, (ii) THE DESIGN OF THE NEXT GENERATION REACTORS (GENERATION IV), (iii) THE CONSTRUCTION OF THE ITER FUSION REACTOR IN CADARACHE (FRANCE), (iv) AND THE INTERMEDIATE AND FINAL DISPOSAL OF NUCLEAR WASTE. IN ORDER TO ADDRESS THESE CHALLENGES, ENGINEERS AND DESIGNERS NEED TO KNOW THE PROPERTIES OF A WIDE VARIETY OF MATERIALS UNDER THESE CONDITIONS AND TO UNDERSTAND THE UNDERLYING PROCESSES AFFECTING CHANGES IN THEIR BEHAVIOR, IN ORDER

TO ASSESS THEIR PERFORMANCE AND TO DETERMINE THE LIMITS OF OPERATION. COMPREHENSIVE NUCLEAR MATERIALS 2E PROVIDES BROAD RANGING, VALIDATED SUMMARIES OF ALL THE MAJOR TOPICS IN THE FIELD OF NUCLEAR MATERIAL RESEARCH FOR FISSION AS WELL AS FUSION REACTOR SYSTEMS. ATTENTION IS GIVEN TO THE FUNDAMENTAL SCIENTIFIC ASPECTS OF NUCLEAR MATERIALS: FUEL AND STRUCTURAL MATERIALS FOR FISSION REACTORS, WASTE MATERIALS, AND MATERIALS FOR FUSION REACTORS. THE ARTICLES ARE WRITTEN AT A LEVEL THAT ALLOWS UNDERGRADUATE STUDENTS TO UNDERSTAND THE MATERIAL, WHILE PROVIDING ACTIVE RESEARCHERS WITH A READY REFERENCE RESOURCE OF INFORMATION. MOST OF THE CHAPTERS FROM THE FIRST EDITION HAVE BEEN REVISED AND UPDATED AND A SIGNIFICANT NUMBER OF NEW TOPICS ARE COVERED IN COMPLETELY NEW MATERIAL. DURING THE TEN YEARS BETWEEN THE TWO EDITIONS, THE CHALLENGE FOR APPLICATIONS OF NUCLEAR MATERIALS HAS BEEN SIGNIFICANTLY IMPACTED BY WORLD EVENTS, PUBLIC AWARENESS, AND TECHNOLOGICAL INNOVATION. MATERIALS PLAY A KEY ROLE AS ENABLERS OF NEW TECHNOLOGIES, AND WE TRUST THAT THIS NEW EDITION OF COMPREHENSIVE NUCLEAR MATERIALS HAS CAPTURED THE KEY RECENT DEVELOPMENTS. CRITICALLY REVIEWS THE MAJOR CLASSES AND FUNCTIONS OF MATERIALS, SUPPORTING THE SELECTION, ASSESSMENT, VALIDATION

AND ENGINEERING OF MATERIALS IN EXTREME NUCLEAR ENVIRONMENTS COMPREHENSIVE RESOURCE FOR UP-TO-DATE AND AUTHORITATIVE INFORMATION WHICH IS NOT ALWAYS AVAILABLE ELSEWHERE, EVEN IN JOURNALS PROVIDES AN IN-DEPTH TREATMENT OF MATERIALS MODELING AND SIMULATION, WITH A SPECIFIC FOCUS ON NUCLEAR ISSUES SERVES AS AN EXCELLENT ENTRY POINT FOR STUDENTS AND RESEARCHERS NEW TO THE FIELD

NUCLEAR PHYSICS - NATIONAL RESEARCH COUNCIL 2013-02-25

THE PRINCIPAL GOALS OF THE STUDY WERE TO ARTICULATE THE SCIENTIFIC RATIONALE AND OBJECTIVES OF THE FIELD AND THEN TO TAKE A LONG-TERM STRATEGIC VIEW OF U.S. NUCLEAR SCIENCE IN THE GLOBAL CONTEXT FOR SETTING FUTURE DIRECTIONS FOR THE FIELD. NUCLEAR PHYSICS: EXPLORING THE HEART OF MATTER PROVIDES A LONG-TERM ASSESSMENT OF AN OUTLOOK FOR NUCLEAR PHYSICS. THE FIRST PHASE OF THE REPORT ARTICULATES THE SCIENTIFIC RATIONALE AND OBJECTIVES OF THE FIELD, WHILE THE SECOND PHASE PROVIDES A GLOBAL CONTEXT FOR THE FIELD AND ITS LONG-TERM PRIORITIES AND PROPOSES A FRAMEWORK FOR PROGRESS THROUGH 2020 AND BEYOND. IN THE SECOND PHASE OF THE STUDY, ALSO DEVELOPING A FRAMEWORK FOR PROGRESS THROUGH 2020 AND BEYOND, THE COMMITTEE CAREFULLY CONSIDERED THE BALANCE BETWEEN UNIVERSITIES AND

GOVERNMENT FACILITIES IN TERMS OF RESEARCH AND WORKFORCE DEVELOPMENT AND THE ROLE OF INTERNATIONAL COLLABORATIONS IN LEVERAGING FUTURE INVESTMENTS. NUCLEAR PHYSICS TODAY IS A DIVERSE FIELD, ENCOMPASSING RESEARCH THAT SPANS DIMENSIONS FROM A TINY FRACTION OF THE VOLUME OF THE INDIVIDUAL PARTICLES (NEUTRONS AND PROTONS) IN THE ATOMIC NUCLEUS TO THE ENORMOUS SCALES OF ASTROPHYSICAL OBJECTS IN THE COSMOS. NUCLEAR PHYSICS: EXPLORING THE HEART OF MATTER EXPLAINS THE RESEARCH OBJECTIVES, WHICH INCLUDE THE DESIRE NOT ONLY TO BETTER UNDERSTAND THE NATURE OF MATTER INTERACTING AT THE NUCLEAR LEVEL, BUT ALSO TO DESCRIBE THE STATE OF THE UNIVERSE THAT EXISTED AT THE BIG BANG. THIS REPORT EXPLAINS HOW THE UNIVERSE CAN NOW BE STUDIED IN THE MOST ADVANCED COLLIDING-BEAM ACCELERATORS, WHERE STRONG FORCES ARE THE DOMINANT INTERACTIONS, AS WELL AS THE NATURE OF NEUTRINOS.

HANDBOOK OF RADIOACTIVITY ANALYSIS - MICHAEL F. L'ANNUNZIATA
2020-03-03

HANDBOOK OF RADIOACTIVITY ANALYSIS: RADIATION PHYSICS AND DETECTORS, VOLUME ONE, AND RADIOANALYTICAL APPLICATIONS, VOLUME TWO, FOURTH EDITION, IS AN AUTHORITATIVE REFERENCE ON THE PRINCIPLES, PRACTICAL TECHNIQUES AND PROCEDURES FOR THE ACCURATE MEASUREMENT OF RADIOACTIVITY -

EVERYTHING FROM THE VERY LOW LEVELS ENCOUNTERED IN THE ENVIRONMENT, TO HIGHER LEVELS MEASURED IN RADIOISOTOPE RESEARCH, CLINICAL LABORATORIES, BIOLOGICAL SCIENCES, RADIONUCLIDE STANDARDIZATION, NUCLEAR MEDICINE, NUCLEAR POWER, AND FUEL CYCLE FACILITIES, AND IN THE IMPLEMENTATION OF NUCLEAR FORENSIC ANALYSIS AND NUCLEAR SAFEGUARDS. IT INCLUDES SAMPLE PREPARATION TECHNIQUES FOR ALL TYPES OF MATRICES FOUND IN THE ENVIRONMENT, INCLUDING SOIL, WATER, AIR, PLANT MATTER AND ANIMAL TISSUE, AND SURFACE SWIPES. USERS WILL FIND A DETAILED DISCUSSION OF OUR CURRENT UNDERSTANDING OF THE ATOMIC NUCLEUS, NUCLEAR STABILITY AND DECAY, NUCLEAR RADIATION, AND THE INTERACTION OF RADIATION WITH MATTER RELATING TO THE BEST METHODS FOR RADIONUCLIDE DETECTION AND MEASUREMENT. SPANS TWO VOLUMES, RADIATION PHYSICS AND DETECTORS AND RADIOANALYTICAL APPLICATIONS INCLUDES A MUCH-EXPANDED TREATMENT OF CALCULATIONS REQUIRED IN THE MEASUREMENT OF RADIONUCLIDE DECAY, ENERGY OF DECAY, NUCLEAR REACTIONS, RADIATION ATTENUATION, NUCLEAR RECOIL, COSMIC RADIATION, AND SYNCHROTRON RADIATION INCLUDES THE LATEST ADVANCES IN LIQUID AND SOLID SCINTILLATION ANALYSIS, ALPHA- AND GAMMA SPECTROMETRY, MASS SPECTROMETRIC ANALYSIS, GAS IONIZATION AND NUCLEAR TRACK ANALYSIS, AND

NEUTRON DETECTION AND MEASUREMENT
COVERS HIGH-SAMPLE-THROUGHPUT
MICROPLATE TECHNIQUES AND MULTI-
DETECTOR ASSAY METHODS

FUNDAMENTALS OF NUCLEAR SCIENCE
AND ENGINEERING SECOND EDITION - J.
KENNETH SHULTIS 2007-09-07

SINCE THE PUBLICATION OF THE
BESTSELLING FIRST EDITION, THERE HAVE
BEEN NUMEROUS ADVANCES IN THE FIELD
OF NUCLEAR SCIENCE. IN MEDICINE,
ACCELERATOR BASED TELETHERAPY AND
ELECTRON-BEAM THERAPY HAVE BECOME
STANDARD. NEW DEMANDS IN NATIONAL
SECURITY HAVE STIMULATED MAJOR
ADVANCES IN NUCLEAR
INSTRUMENTATION. AN IDEAL
INTRODUCTION TO THE FUNDAMENTALS
OF NUCLEAR SCIENCE AND ENGINEERING,
THIS BOOK PRESENTS THE BASIC
NUCLEAR SCIENCE NEEDED TO
UNDERSTAND AND QUANTIFY AN
EXTENSIVE RANGE OF NUCLEAR
PHENOMENA. NEW TO THE SECOND
EDITION— A CHAPTER ON RADIATION
DETECTION BY DOUGLAS MCGREGOR
UP-TO-DATE COVERAGE OF RADIATION
HAZARDS, REACTOR DESIGNS, AND
MEDICAL APPLICATIONS FLEXIBLE
ORGANIZATION OF MATERIAL THAT
ALLOWS FOR QUICK REFERENCE THIS
EDITION ALSO TAKES AN IN-DEPTH LOOK
AT PARTICLE ACCELERATORS, NUCLEAR
FUSION REACTIONS AND DEVICES, AND
NUCLEAR TECHNOLOGY IN MEDICAL
DIAGNOSTICS AND TREATMENT. IN
ADDITION, THE AUTHOR DISCUSSES
APPLICATIONS SUCH AS THE DIRECT
CONVERSION OF NUCLEAR ENERGY INTO
ELECTRICITY. THE BREADTH OF

COVERAGE IS UNPARALLELED, RANGING
FROM THE THEORY AND DESIGN
CHARACTERISTICS OF NUCLEAR
REACTORS TO THE IDENTIFICATION OF
BIOLOGICAL RISKS ASSOCIATED WITH
IONIZING RADIATION. ALL TOPICS ARE
SUPPLEMENTED WITH EXTENSIVE
NUCLEAR DATA COMPILATIONS TO
PERFORM A WEALTH OF CALCULATIONS.
PROVIDING EXTENSIVE COVERAGE OF
PHYSICS, NUCLEAR SCIENCE, AND
NUCLEAR TECHNOLOGY OF ALL TYPES,
THIS UP-TO-DATE SECOND EDITION OF
FUNDAMENTALS OF NUCLEAR SCIENCE
AND ENGINEERING IS A KEY REFERENCE
FOR ANY PHYSICISTS OR ENGINEER.

PLUTONIUM - FRANK VON HIPPEL
2019-12-23

THIS BOOK PROVIDES A READABLE AND
THOUGHT-PROVOKING ANALYSIS OF THE
ISSUES SURROUNDING NUCLEAR FUEL
REPROCESSING AND FAST-NEUTRON
REACTORS, INCLUDING DISCUSSION OF
RESOURCES, ECONOMICS, RADIOLOGICAL
RISK AND RESISTANCE TO NUCLEAR
PROLIFERATION. IT DESCRIBES THE
HISTORY AND SCIENCE BEHIND
REPROCESSING, AND GIVES AN
OVERVIEW OF THE STATUS OF
REPROCESSING PROGRAMMES AROUND
THE WORLD. IT CONCLUDES THAT SUCH
PROGRAMS SHOULD BE DISCONTINUED.
WHILE NUCLEAR POWER IS SEEN BY
MANY AS THE ONLY REALISTIC
SOLUTION TO THE CARBON EMISSION
PROBLEM, SOME NATIONAL NUCLEAR
ESTABLISHMENTS HAVE BEEN PURSUING
DEVELOPMENT AND DEPLOYMENT OF
SODIUM-COOLED PLUTONIUM BREEDER
REACTORS, AND PLUTONIUM RECYCLING.

ITS PROPONENTS ARGUE THAT THIS SYSTEM WOULD OFFER SIGNIFICANT ADVANTAGES RELATIVE TO CURRENT LIGHT WATER REACTOR TECHNOLOGY IN TERMS OF GREATER URANIUM UTILIZATION EFFICIENCY, AND THAT SEPARATING OUT THE LONG-LIVED PLUTONIUM AND OTHER TRANSURANICS FROM SPENT FUEL AND FISSIONING THEM IN FAST REACTORS WOULD GREATLY REDUCE THE DURATION OF THE TOXICITY OF RADIOACTIVE WASTE. HOWEVER, THE HISTORY OF EFFORTS TO DEPLOY THIS SYSTEM COMMERCIALY IN A NUMBER OF COUNTRIES OVER THE LAST SIX DECADES HAS BEEN ONE OF ECONOMIC AND TECHNICAL FAILURE AND, IN SOME CASES, WAS USED TO MASK CLANDESTINE NUCLEAR WEAPON DEVELOPMENT PROGRAMS. COVERING TOPICS OF SIGNIFICANT PUBLIC INTEREST INCLUDING NUCLEAR SAFETY, FUEL STORAGE, ENVIRONMENTAL IMPACT AND THE SPECTRE OF NUCLEAR TERRORISM, THIS BOOK PRESENTS A COMPREHENSIVE ANALYSIS OF THE ISSUE FOR NUCLEAR ENGINEERS, POLICY ANALYSTS, GOVERNMENT OFFICIALS AND THE GENERAL PUBLIC. "FRANK VON HIPPEL, JUNGMIN KANG, AND MASAFUMI TAKUBO, THREE INTERNATIONALLY RENOWNED NUCLEAR EXPERTS, HAVE DONE A VALUABLE SERVICE TO THE GLOBAL COMMUNITY IN PUTTING TOGETHER THIS BOOK, WHICH BOTH HISTORICALLY AND COMPREHENSIVELY COVERS THE "PLUTONIUM AGE" AS WE KNOW IT TODAY. THEY ARTICULATE IN A SUCCINCT AND CLEAR MANNER THEIR

VIEWS ON THE DANGERS OF A PLUTONIUM ECONOMY AND ADVOCATE A BAN ON THE SEPARATION OF PLUTONIUM FOR USE IN THE CIVILIAN FUEL CYCLE IN VIEW OF THE HIGH PROLIFERATION AND NUCLEAR-SECURITY RISKS AND LACK OF ECONOMIC JUSTIFICATION." (MOHAMED ELBARADEI, DIRECTOR GENERAL, INTERNATIONAL ATOMIC ENERGY AGENCY (1997-2009), NOBEL PEACE PRIZE (2005)) "THE 1960S DREAM OF A 'PLUTONIUM ECONOMY' HAS NOT DELIVERED ABUNDANT LOW-COST ENERGY, BUT INSTEAD HAS LEFT THE WORLD A RADIOACTIVE LEGACY OF NUCLEAR WEAPONS PROLIFERATION AND THE REAL POTENTIAL FOR NUCLEAR TERRORISM. KANG, TAKUBO, AND VON HIPPEL EXPLAIN WITH POWER AND CLARITY WHAT CAN BE DONE TO REDUCE THESE DANGERS. THE GOVERNMENTS OF THE REMAINING COUNTRIES WHOSE NUCLEAR RESEARCH AND DEVELOPMENT ESTABLISHMENTS ARE STILL PURSUING THE PLUTONIUM DREAM SHOULD PAY ATTENTION." (SENATOR EDWARD MARKEY, A LEADER IN THE US NUCLEAR-DISARMAMENT MOVEMENT AS A MEMBER OF CONGRESS SINCE 1976) "THE AUTHORS HAVE DONE AN INVALUABLE SERVICE BY PUTTING TOGETHER IN ONE PLACE THE MOST COHERENT ANALYSIS OF THE RISKS ASSOCIATED WITH PLUTONIUM, AND THE MOST COMPELLING ARGUMENT FOR ENDING THE PRACTICE OF SEPARATING PLUTONIUM FROM SPENT FUEL FOR ANY PURPOSE. THEY HAVE GIVEN US AN EASILY ACCESSIBLE

HISTORY OF THE EVOLUTION OF THINKING ABOUT THE NUCLEAR FUEL CYCLE, THE CURRENT REALITIES OF NUCLEAR POWER AROUND THE WORLD AND, ARGUABLY MOST IMPORTANT, A CLEAR ALTERNATIVE PATH TO DEAL WITH THE SPENT FUEL ARISING FROM NUCLEAR REACTORS FOR DECADES TO CENTURIES TO COME." (ROBERT GALLUCCI, CHIEF US NEGOTIATOR WITH NORTH KOREA (1994); DEAN, GEORGETOWN UNIVERSITY SCHOOL OF FOREIGN SERVICE (1996-2009); PRESIDENT, MACARTHUR FOUNDATION (2009-2014))

NUCLEAR SYSTEMS VOLUME II - NEIL E. TODREAS 2021-12-13

THIS BOOK PROVIDES ADVANCED COVERAGE OF A WIDE VARIETY OF THERMAL FLUID SYSTEMS AND TECHNOLOGIES IN NUCLEAR POWER PLANTS, INCLUDING DISCUSSIONS OF THE LATEST REACTOR DESIGNS AND THEIR THERMAL/FLUID TECHNOLOGIES. BEYOND THE THERMAL HYDRAULIC DESIGN AND ANALYSIS OF THE CORE OF A NUCLEAR REACTOR, THE BOOK COVERS OTHER COMPONENTS OF NUCLEAR POWER PLANTS, SUCH AS THE PRESSURIZER, CONTAINMENT, AND THE ENTIRE PRIMARY COOLANT SYSTEM. PLACING MORE EMPHASIS ON THE APPROPRIATE MODELS FOR SMALL-SCALE RESOLUTION OF THE VELOCITY AND TEMPERATURE FIELDS THROUGH COMPUTATIONAL FLUID MECHANICS, THE BOOK SHOWS HOW THIS ENHANCES THE ACCURACY OF PREDICTED OPERATING CONDITIONS IN NUCLEAR PLANTS. IT INTRODUCES CONSIDERATIONS OF THE

LAWS OF SCALING AND UNCERTAINTY ANALYSIS, ALONG WITH A WIDER COVERAGE OF THE PHENOMENA ENCOUNTERED DURING ACCIDENTS. FEATURES DISCUSSES FUNDAMENTAL IDEAS FOR VARIOUS MODELING APPROACHES FOR THE MACRO- AND MICROSCALE FLOW CONDITIONS IN REACTORS COVERS SPECIFIC DESIGN CONSIDERATIONS, SUCH AS NATURAL CONVECTION AND CORE RELIABILITY ENABLES READERS TO BETTER UNDERSTAND THE IMPORTANCE OF SAFETY CONSIDERATIONS IN THERMAL ENGINEERING AND ANALYSIS OF MODERN NUCLEAR PLANTS FEATURES END-OF-CHAPTER PROBLEMS INCLUDES A SOLUTIONS MANUAL FOR ADOPTING INSTRUCTORS THIS BOOK SERVES AS A TEXTBOOK FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS TAKING COURSES IN NUCLEAR ENGINEERING AND STUDYING THERMAL/HYDRAULIC SYSTEMS IN NUCLEAR POWER PLANTS.

INTRODUCTION TO NUCLEAR REACTOR THEORY - JOHN R. LAMARSH 2002

FUNDAMENTALS OF NUCLEAR ENGINEERING - BRENT J. LEWIS 2017-03-24

FUNDAMENTAL OF NUCLEAR ENGINEERING IS DERIVED FROM OVER 25 YEARS OF TEACHING UNDERGRADUATE AND GRADUATE COURSES ON NUCLEAR ENGINEERING. THE MATERIAL HAS BEEN EXTENSIVELY CLASS TESTED AND PROVIDES THE MOST COMPREHENSIVE TEXTBOOK AND REFERENCE ON THE FUNDAMENTALS OF NUCLEAR

ENGINEERING. IT INCLUDES A BROAD RANGE OF IMPORTANT AREAS IN THE NUCLEAR ENGINEERING FIELD; NUCLEAR AND ATOMIC THEORY; NUCLEAR REACTOR PHYSICS, DESIGN, CONTROL/DYNAMICS, SAFETY AND THERMAL-HYDRAULICS; NUCLEAR FUEL ENGINEERING; AND HEALTH PHYSICS/RADIATION PROTECTION. IT

ALSO INCLUDES THE LATEST INFORMATION THAT IS MISSING IN TRADITIONAL TEXTS, SUCH AS SPACE RADIATION. THE AIM OF THE BOOK IS TO PROVIDE A SOURCE FOR UPPER LEVEL UNDERGRADUATE AND GRADUATE STUDENTS STUDYING NUCLEAR ENGINEERING.

NTH COUNTRY THREAT ANALYSIS -
1969