1. Record Nr. UNINA9910716643203321

Titolo	Potential safety enhancements to spent fuel pool storage
Pubbl/distr/stampa	Washington, DC : , : United States Nuclear Regulatory Commission, Office of New Reactors : , : Office of Nuclear Reactor Regulation : , : Office of Nuclear Material Safety and Safeguards, , 2014
Descrizione fisica	1 online resource (6 pages) : color illustration
Collana	NRC information notice ; ; 2014-14
Soggetti	Spent reactor fuels - Storage - Safety measures
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"November 14, 2014." "ML14218A493."

2. Record Nr. UNINA9910766895003321

Autore	Seeram Euclid
Titolo	X-Ray Imaging Systems for Biomedical Engineering Technology : An Essential Guide / / by Euclid Seeram
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2023
ISBN	3-031-46266-1
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (162 pages)
Disciplina	616.07572
Soggetti	Radiography, Medical Radiology Biophysics Nuclear medicine Radiation dosimetry Radiography Bioanalysis and Bioimaging Nuclear Medicine Radiation Dosimetry and Protection
Lingua di pubblicazione	Inglese

Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Preface -- X-Ray Imaging Systems: An Overview -- Radiation Physics at a Glance -- Computed Radiography Imaging: Principles and System Components -- Flat-Panel Digital Radiography: Principles and System Components -- Digital Fluoroscopy: System Components and Principles -- Digital Image Quality Descriptors and Performance Characteristics -- Computed Tomography: Basic Physics and Technology -- Imaging Informatics Essentials -- Artificial Intelligence in Medical Imaging: An Overview -- Quality Control in Diagnostic X-Ray Imaging Systems -- Radiation Protection in X-Ray Imaging -- Index. .
Sommario/riassunto	This book addresses X-Ray Imaging Systems intended for biomedical engineering technology students and practitioners, and deals with the major technical components of x-ray imaging modalities. These modalities include film-based imaging, digital radiography, and computed tomography. Furthermore, principles and concepts essential to the understanding of how these modalities function will be described. These include fundamental radiation physics, imaging informatics, quality control, and radiation protection considerations. X-Ray Imaging Systems for Biomedical Engineering Technology: An Essential Guide is intended for biomedical engineering technologists, who provide technical advice and services relating to digital radiography and CT departments not only in hospitals but in private facilities as well. Students in radiological technology programs may also find this to be a useful resource.

3. Record Nr. UNINA9910899895903321

Autore	Stautner Ernst Wolfgang
Titolo	Aircraft Cryogenics / / by Ernst Wolfgang Stautner, Kiruba S. Haran, Phillip J. Ansell, Constantinos Minas
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2024
ISBN	3-031-71408-3
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (349 pages)
Collana	International Cryogenics Monograph Series, , 2199-3084
Disciplina	629.1
Soggetti	Thermodynamics Heat engineering Heat - Transmission Mass transfer Aerospace engineering Astronautics Electric power production Low temperatures Engineering Thermodynamics, Heat and Mass Transfer Aerospace Technology and Astronautics Electrical Power Engineering Low Temperature Physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Chapter 1. Introduction -- Chapter 2. Hydrogen Storage Technology – Options and Outlook -- Chapter 3. Cryogenic liquid hydrogen tank design aspects – General Overview -- Chapter 4. Cryotankage – Structural thoughts -- Chapter 5. Cryotankage – Tank shapes and Airframe integration -- Chapter 6. Hydrogen tank – Cryocircuit, Integration of components, instrumentation -- Chapter 7. Liquid hydrogen pump overview -- Chapter 8. Leak Detection on Hydrogen Aircraft -- Chapter 9. Cooling System Technologies on Superconducting Rotating Machines -- Chapter 10. Excursion: Rotating heat transfer for motors -- Chapter 11. Airport Infrastructure Requirements for Liquid Hydrogen Supply and Distribution -- Chapter

12. Summary and Outlook.

Sommario/riassunto

This book gives a step-by-step approach to the design of a cryogenic infrastructure required for superconducting, all-electric aircraft systems which is also partially applicable to liquid hydrogen fueled subsonic and hypersonic aircraft, as well as hybrids. While there is no shortage of publications on hydrogen fueled aircraft, this book puts the past journal literature through a magnifying glass and condenses it into an engineering strategy for the next steps to enable liquid hydrogen storage and distribution in aircraft. Emphasis is placed on tank design, manufacturability, safety features, and minimum tank weight, providing a holistic focus on the logistics of hydrogen management for all major components within the aircraft as well as on future superconducting motor architecture. The intention is to fully exploit the benefits of a liquid hydrogen reservoir without any need for additional cryogenic fluids, with relevance to cooling of various superconducting components e.g., motors and superconducting cables, as well as the heat sinking of power electronics and for fueling the fuel cell stack system. A liquid hydrogen tank hold-time analysis reveals the main governing factors and describes the required efforts for minimizing onboard boil off for aircraft designs with different flight mission duration. This is followed by an outlook showing where cryotankage technology and cryogenic aircraft architecture may move within the next 20 years embedded in a green hydrogen-based economy and how basic research will need to play a major role to help us realizing these future designs by consequently eliminating whitespace within today's technology landscape. This book is also an aircraft engineering resource on composites, hydrogen properties, general aircraft materials and safety.