

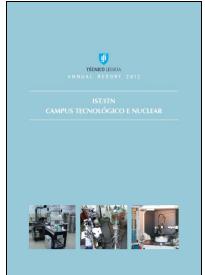
Agosto 2013



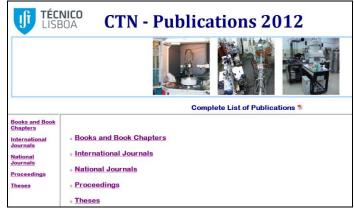




# Relatório de Actividades 2012



# Produção Científica 2012, disponível no IST/CTN Intranet









# Publicações Oferecidas





# The Uranium Mining Remediation Exchange Group (UMREG). Selected Papers 1995-2007

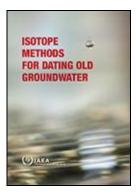
PublicationsSubject Classification: 0801-Uranium ore processing STI/PUB/1524(ISBN:978-92-0-169310-5) Language: English

Disponível em CD, ou consultar internamente em:



# DESCRIPTION

In light of the renewed interest in uranium mining and production, to meet the world's energy needs, it is of paramount importance to take advantage of past experiences (including successes, failures and mistakes) gained within the field over the thirty years. This publication includes selected papers presented at the meetings of the UMREG over the past 12 years. The intention is to preserve corporate knowledge within the industry and to assist new entrants to the uranium production business, be they operators or regulators.



# Isotope Methods for Dating Old Groundwater

Subject Classification: 0402-Hydrology STI/PUB/1587(ISBN:978-92-0-137210-9)357 pp.;178 figures; Language: English

http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1587\_web.pdf

#### DESCRIPTION

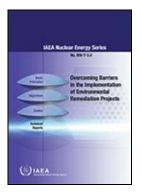
This guidebook provides theoretical and practical information for using a variety of isotope tracers for dating "old" groundwater, i.e. water stored in geological formations for periods ranging from about 1000 to one million years. Theoretical underpinnings of the methods and guidelines for their use in different hydrogeological environments are described. The guidebook also presents a number of case studies providing insight into how various isotopes have been used in aquifers around the world. The methods, findings and conclusions presented in this publication will enable students and practicing groundwater scientists to evaluate the use of isotope dating tools for specific issues related to the assessment and management of groundwater resources. In addition, the guidebook will be of use to the scientific community interested in issues related to radioactive waste disposal in geological repositories.







#### IAEA Nuclear Energy Series



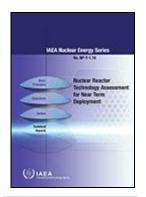
# Overcoming Barriers in the Implementation of Environmental Remediation Projects

IAEA Nuclear Energy Series NW-T-3.4

Subject Classification: 0800-Nuclear fuel cycle and waste management STI/PUB/1602(ISBN:978-92-0-140810-5)58 pp.;2 figures; Language: English http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1602 Web.pdf

#### DESCRIPTION

Environmental remediation has been in existence for decades, and a tremendous body of practical and scientific knowledge has been developed in many areas. Responding to the needs of Member States, the IAEA has initiated an environmental remediation project to address radioactive contamination found in soils and waters. This publication discusses the drivers on environmental remediation as well as the major obstacles confronted by any remediation operation and how to overcome those obstacles. It includes a number of potential strategies that may provide effective remediation outcomes and that have been deemed to be cost effective by Member States. Implementers of an environmental remediation programme as well as regulators will benefit from the information and guidance provided in this publication.



## Nuclear Reactor Technology Assessment for Near Term Deployment

IAEA Nuclear Energy Series NP-T-1.10

Subject Classification: 0703-Reactor technology STI/PUB/1597(ISBN:978-92-0-140310-0)94 pp.;3 figures; Language: English

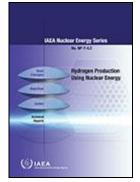
http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1597\_web.pdf

#### DESCRIPTION

Given the increasing interest in the near term deployment of new nuclear power plants, IAEA Member States have requested guidance on the process of evaluating and selecting available technology options. Reactor technology assessment enables the evaluation, selection, and deployment of the best technology to meet the objectives of a nuclear power programme. This publication demonstrates how reactor technology assessment is performed and how the process and results of this work enable decision making in nuclear power planning. The approach also provides decision makers with the documentation necessary to support their conclusions.







# Hydrogen Production Using Nuclear Energy

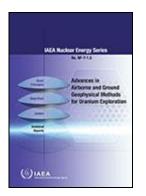
Nuclear Energy Series NP-T-4.2

Subject Classification: 0700-Nuclear power STI/PUB/1577(ISBN:978-92-0-135110-4)379 pp.;217 figures; Language: English

http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1577\_web.pdf

#### DESCRIPTION

A future energy economy will be strongly dependent on the necessity of replacing oil and reducing greenhouse gas emissions for climate protection. Hydrogen has the potential to play an important role as a sustainable and environmentally acceptable source of energy in the 21st century. Yet, there are technical challenges in nuclear hydrogen processes, which need to be addressed through a comprehensive research and development effort. This publication presents the state of the art in the nuclear production of hydrogen and describes the areas of research to be undertaken for establishing a hydrogen economy regime. It includes highlights of international programme and research efforts on nuclear hydrogen production as well as information on hydrogen uses and infrastructure, and provides an introduction to the economic analysis of hydrogen production.



## Advances in Airborne and Ground Geophysical Methods for Uranium Exploration

IAEA Nuclear Energy Series NF-T-1.5

Subject Classification: 0401-Uranium geology, exploration and mining STI/PUB/1558(ISBN:978-92-0-129010-6)58 pp.; Language: English

http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1558\_web.pdf

#### DESCRIPTION

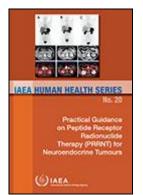
Due to growing global energy demand, many countries have seen a rise in uranium exploration activities in the past few years, and newly designed geophysical instruments and their application in uranium exploration are contributing to an increased probability of successful discoveries. This publication highlights advances in airborne and ground geophysical techniques and methods for uranium exploration, succinctly describing modern geophysical methods and demonstrating their application with examples.







#### IAEA Human Health Series



# Practical Guidance on Peptide Receptor Radionuclide Therapy (PRRNT) in Neuroendocrine Tumours

IAEA Human Health Series 20

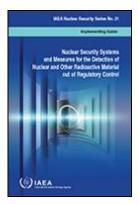
Subject Classification: 0101-Nuclear medicine (including radiopharmaceuticals) STI/PUB/1560(ISBN:978-92-0-129210-0)123 pp.;5 figures; Language: English

http://www-pub.iaea.org/MTCD/Publications/PDF/P1560\_web.pdf

#### DESCRIPTION

This publication provides comprehensive multidisciplinary guidance to promote standardized, effective and safe implementation of best practices for treating neuroendocrine and gastro-entero-pancreatic tumours through applying peptide receptor radionuclide therapy (PRRNT). Taking into account the latest international classifications of neuroendocrine tumours, both PRRNT as a sole treatment and as a treatment in combination with other options are considered. Comprehensive protocols for employing either 90Y or 177Lu tagged somatostatin receptor-targeting peptides and clinically tested protocols for renal protection are presented. The publication comprises a comprehensive compilation of medical evidence and experience. Furthermore, it contains clinical presentations, eligibility criteria and means of assessing the effectiveness of therapy utilizing molecular and morphological medical imaging techniques. The publication is a practical reference for specialists in clinical oncology and in nuclear medicine deploying and executing a comprehensive programme for treating patients with neuroendocrine tumours.

#### IAEA Nuclear Security Series



## Nuclear Security Systems and Measures for the Detection of Nuclear and Other Radioactive Material out of Regulatory Control

IAEA Nuclear Security Series 21

STI/PUB/1613(ISBN:978-92-0-142910-0)60 pp.;3 figures; Language: English

http://www-pub.iaea.org/MTCD/Publications/PDF/P1560\_web.pdf

#### DESCRIPTION

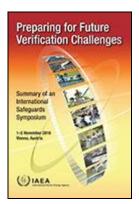
This publication provides guidance to Member States for the development of, or improvement of nuclear security systems and measures for the detection of criminal or unauthorized acts with nuclear security implications involving nuclear and other radioactive material out of regulatory control. It describes the elements of an effective nuclear security detection architecture which is comprised of an integrated set of nuclear security systems and measures, and is based on an appropriate legal and regulatory framework for the implementation of the national detection strategy. The publication is an implementing guide within the IAEA Nuclear Security Series publications and is intended for use by national policy makers, legislative bodies, competent authorities, institutions, and individuals involved in the establishment, implementation, maintenance or sustainability of nuclear security systems and measures for the detection of nuclear and other radioactive material out of regulatory control.







#### Proceedings Series - International Atomic Energy Agency



# PreparingforFutureVerificationChallenges:SummaryofanInternationalSafeguardsSymposium held in Vienna, 1–5November 2010Proceedings Series - International Atomic Energy AgencySubject Classification:1000-Safeguards

STI/PUB/1611(ISBN:978-92-0-142110-4)63 pp.;

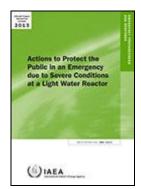
#### Language: English

http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1611\_web.pdf

#### DESCRIPTION

IAEA safeguards symposia are important forums for substantive and detailed interaction between the Secretariat of the IAEA, its Member States and the international community on safeguards and verification issues. The 11th Symposium on International Safeguards, Preparing for Future Verification Challenges, was held in Vienna, Austria, from 1 to 5 November 2010. The aim of the symposium was to help the IAEA to prepare for future verification challenges by engaging in dialogue and information exchange with Member States, technical experts, the nuclear industry and members of the broader safeguards and nuclear non-proliferation community. This publication provides a summary of the symposium plenaries, technical sessions, panels and forums.

#### Emergency Preparedness and Response



# Actions to Protect the Public in an Emergency due to Severe Conditions at a Light Water Reactor

Emergency Preparedness and Response

Subject Classification: -EPR-NPP-PPA (2013)135 pp.; Language: English

http://www-pub.iaea.org/MTCD/Publications/PDF/EPR-NPP\_PPA\_web.pdf

#### DESCRIPTION

This publication is part of the IAEA's Emergency Preparedness and Response (EPR) series. It provides the basic information and criteria needed by a decision maker in order to protect the public during an emergency involving severe fuel damage in a light water reactor (LWR) or graphite moderated reactor (RBMK) core and/or spent fuel pool. This publication applies to reactors with power levels greater than 30 MW(e) (100 MW(th)) and to spent fuel pools that contain reactor fuel that needs to be actively cooled in order to prevent overheating and failure of the fuel. It takes account of the lessons learned from response to past emergencies, including the accident at TEPCO's Fukushima Daiichi Nuclear Power Station in 2011, and from latest research, while ensuring consistency with IAEA Safety Standards Series No. GS-R-2.







#### IAEA Services Series



### Integrated Regulatory Review Service (IRRS) Guidelines for the Preparation and Conduct of IRRS Missions

IAEA Services Series 23

Subject Classification: -IAEA-SVS-2369 pp.;4 figures; Language: English

http://www-pub.iaea.org/MTCD/Publications/PDF/SVS-23\_web.pdf

#### Safety Reports Series



# Implementation of a Management System for Operating Organizations of Research Reactors

Safety Reports Series 75

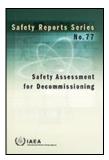
Subject Classification: 0604-Research reactors STI/PUB/1584(ISBN:978-92-0-136010-6)161 pp.;63 figures;

Language: English

http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1584\_web.pdf

#### DESCRIPTION

The requirements for management systems for research reactors are set out in the IAEA safety standards. To ensure that an integrated management system based on the IAEA safety standards is tailored for the size of the different organizations and commensurate to the risks of an activity, the safety requirements for management systems for facilities and activities (IAEA Safety Standards Series No. GS-R-3) includes a requirement to grade the application of the management system and the deployment of resources appropriately. This publication not only applies the relevant standards and presents the processes for larger operating organizations of research reactors to ensure safe operation and utilization, but it also provides a case study of a graded approach to the application of the management system requirements as implemented by a small research reactor. This report will be useful for research reactor operating organizations, particularly those intending to implement a process based integrated management system, and may also be of interest to other nuclear facilities and to regulatory bodies.



# Safety Assessment for Decommissioning

Safety Reports Series 77

Subject Classification: 0800-Nuclear fuel cycle and waste management STI/PUB/1604(ISBN:978-92-0-141410-6)133 pp.;9 figures;

#### Language: English

http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1604\_web.pdf

#### DESCRIPTION

The international project on evaluation and demonstration of safety during decommissioning of facilities using radioactive material (DeSa), launched by the IAEA in 2004, helps to ensure that specific guidance on the safety assessment in the context of the decommissioning of nuclear facilities is provided. This publication presents the outcomes of the work carried out in fulfilling the action plan through the DeSa Project. The main features of the process have been summarized and overall recommendations on producing, reviewing and implementing the safety assessment have been made. They are supported by specific recommendations contained in Annexes I–III.





# **Outras Publicações Oferecidas**

# Reports

Agosto 2013



http://www.differ.nl/en/node/6/

http://www.differ.nl/sites/default/files/multimedia/organization/PI/DIFFER% 20annual%20report%202012.pdf



http://www.differ.nl/sites/default/files/multimedia/organization/PI/DIFFER% 20annual%20report%202012%20-%20appendix.pdf





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