Radiotherapy in Cancer Care: Facing the Global Challenge

This publication presents a comprehensive overview of the major topics and issues to be taken into consideration when planning a strategy to address cancer diagnosis and treatment, particularly in low- and middle-income countries. Cancer treatment is complex and calls for a diverse set of services. Radiotherapy is recognized as an essential tool in the treatment and palliation of cancer.

Access to radiation treatment is limited in many countries and non-existent in some. The lack of radiotherapy-treatment resources exacerbates the burden of disease and underscores the continuing health care disparity among countries. Closing this gap represents an essential measure in addressing this global health equity problem.

With contributions from leaders in the field, the publication provides an introduction to the achievements and issues related to the use of radiation therapy as a cancer treatment modality around the world. Dedicated chapters focus on proton therapy, carbon ion radiotherapy, intraoperative radiotherapy, radiotherapy for children, HIV/AIDS-related malignancies, and costing and quality management issues.

www-pub.iaea.org/books/IAEABooks/10627/Cancer

Research Reactors for the Development of Materials and Fuels for Innovative Nuclear Energy Systems

This publication presents an overview of research reactor capabilities and capacities in the development of fuels and materials for innovative nuclear reactors, such as GenIV reactors. It provides comprehensive information on the potential for materials- and fuel-testing research of 30 research reactors, both operational and in development. The information includes their power levels, mode of operation, current status, availability and a historical overview of their utilization. A summary of these capabilities and capacities is also presented.

Papers providing a technical description of the research reactors, including their specific features for utilization, are collected as profiles on a CD-ROM and represent an integral part of the publication. The publication is intended to foster wider access to information on existing research reactors with capacity for advanced material-testing research and thus ensure their increased utilization in this particular domain.

IAEA Nuclear Energy Series No. NP-T-5.8; ISBN: 978-92-0-100816-9; English Edition; 32.00 euros; 2017
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Industrial Applications of Nuclear Energy

This publication provides a detailed overview of the potential use of nuclear energy for industrial systems or processes that have a strong demand for process heat steam and power and information on the mapping of nuclear power reactors proposed for various industrial applications. It describes the technical concepts for combined nuclear-industrial complexes that are being pursued in various countries and presents the concepts that were developed in the past to be applied in connection with some major industries. It also provides an analysis of the energy demand in various industries and outlines the potential that nuclear energy may have in major industrial applications such as process steam for oil recovery and refineries, hydrogen generation and steel and aluminium production.

IAEA Nuclear Energy Series No. NP-T-4.3; ISBN: 978-92-0-101417-7; English Edition; 59.00 euros; 2017
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