

1. Record Nr.	UNINA9910452543203321
Autore	Gibney John <1976->
Titolo	The shadow of a year [[electronic resource]] : the 1641 rebellion in Irish history and memory / / John Gibney
Pubbl/distr/stampa	Madison, : University of Wisconsin Press, c2013
ISBN	0-299-28953-2 1-299-19230-0
Descrizione fisica	1 online resource (244 p.)
Collana	History of Ireland and the Irish diaspora
Disciplina	941.506
Soggetti	Electronic books. Ireland History Rebellion of 1641 Historiography Ireland Historiography
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.

2. Record Nr.	UNINA9910437989203321
Autore	Gupta Tapan
Titolo	Radiation, ionization, and detection in nuclear medicine // by Tapan K. Gupta
Pubbl/distr/stampa	Berlin ; ; Heidelberg, : Springer, 2013
ISBN	3-642-34076-8
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (528 p.)
Disciplina	616.07575
Soggetti	Nuclear medicine Radioactivity - Physiological effect Radiation Ionization Radioactive substances - Detection
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di contenuto	""Radiation, Ionization, and Detection in Nuclear Medicine ""; ""Copyright""; ""Dedication""; ""Preface""; ""Acknowledgments""; ""Contents""; ""1: Nuclear Radiation, Ionization, and Radioactivity""; ""1.1 Introduction""; ""1.2 Ionizing Radiation and Consequences""; ""1.3 Visual Demonstration of Radiation""; ""1.4 Definition""; ""1.4.1 Roentgen""; ""1.4.2 Fluence""; ""1.4.3 Quality Factor""; ""1.4.4 Radiation Dose""; ""1.4.5 Rem""; ""1.4.6 Energy""; ""1.4.7 Relationship Between Kerma, Exposure, and Absorbed Dose""; ""1.4.8 Radioactivity""; ""1.4.9 Radioactive Decay""; ""1.4.10 Positron"" ""1.5 Sources of Nuclear Radiation""""1.5.1 Alpha ($\pm$) Particle""; ""1.5.2 Beta (beta) Particles""; ""1.5.3 Gamma (gamma) Rays""; ""1.6 Attenuation Coefficient of gamma-Rays""; ""1.7 Half-Value Layer""; ""1.8 Neutrons""; ""1.9 Neutron Scattering""; ""1.9.1 Elastic Scattering""; ""1.9.2 Energy Distribution of Elastically Scattered Neutrons""; ""1.9.3 Inelastic Scattering""; ""1.10 The Cross-Section Concept""; ""1.11 Thermal Neutrons""; ""1.12 Neutron Sources""; ""1.13 Neutron Shielding""; ""1.14 X-Rays""; ""1.14.1 Production and Properties of X-Ray""; ""1.14.2 Beam Quality"" ""1.15 Interactions of X-Rays""""1.16 Photoelectric Effect""; ""1.17 Pair

Production""; ""1.18 Use of Natural Forces for the Material Improvement of Mankind""; ""1.19 Radionuclides""; ""1.20 Production of Radionuclides""; ""1.20.1 Cyclotron""; ""1.20.2 Reactor""; ""1.21 Developments and Uses of Radionuclides""; ""1.22 Summary""; ""References""; ""2: Radiation Exposure: Consequences, Detection, and Measurements""; ""2.1 Introduction""; ""2.2 Sources of Radiation Exposure""; ""2.2.1 Natural Sources""; ""2.3 Biological and Related Effects of Radiation""
 ""2.4 Effects of Radiation on Consumable Products""""2.5 Effects of Radiation""; ""2.5.1 Plants and Vegetations""; ""2.5.2 Electronics and Associated Active and Passive Elements""; ""2.6 Detection of Radiation""; ""2.6.1 Detection of Alpha (α) and Beta (β) Particles""; ""2.6.2 Detection of Gamma Ray""; ""2.6.3 Detection of X-Ray""; ""2.7 Neutron Detection""; ""2.7.1 Thermal Neutrons""; ""2.7.2 Slow Neutrons""; ""2.8 Boron Reaction""; ""2.9 Lithium Reaction""; ""2.10 Instrumentation""; ""2.10.1 Ion Chamber""; ""2.10.2 Free-Air Ionization Chamber""; ""2.10.3 Proportional Counter (PC)""
 ""2.10.4 Position-Sensitive Proportional Counter""""2.10.5 Parallel-Plate Avalanche Counter""; ""2.10.6 Geiger-Muller (GM) Counter""; ""2.11 Photomultiplier""; ""2.11.1 Tube""; ""2.11.2 Solid-State Photomultiplier (SSPM)""; ""2.12 Modes of Detector Operation""; ""2.12.1 Current Mode""; ""2.12.2 Mean-Square Voltage Mode (MSV)""; ""2.12.3 Pulse Mode""; ""2.13 Recording and Measurement Techniques""; ""2.13.1 Spectroscopy and Spectrometry""; ""2.13.2 Gamma-Ray Spectroscopy""; ""2.13.3 Neutron Spectroscopy""; ""2.13.4 X-Ray Spectroscopy""; ""2.13.5 Characteristic Parameters of the Spectrum""
 ""2.13.5.1 Energy Resolution""

Sommario/riassunto

Although our understanding of cancer has improved, the disease continues to be a leading cause of death across the world. The good news is that the recent technological developments in radiotherapy, radionuclide diagnostics and therapy, digital imaging systems, and detection technology have raised hope that cancer will in the future be combatted more efficiently and effectively. For this goal to be achieved, however, safe use of radionuclides and detailed knowledge of radiation sources are essential. Radiation, Ionization, and Detection in Nuclear Medicine addresses these subjects and related issues very clearly and elaborately and will serve as the definitive source of detailed information in the field. Individual chapters cover fundamental aspects of nuclear radiation, including dose and energy, sources, and shielding; the detection and measurement of radiation exposure, with detailed information on mathematical modelling; medical imaging; the different types of radiation detector and their working principles; basic principles of and experimental techniques for deposition of scintillating materials; device fabrication; the optical and electrical behaviors of radiation detectors; and the instrumentation used in nuclear medicine and its application. The book will be an invaluable source of information for academia, industry, practitioners, and researchers.
