

1. Record Nr.	UNINA9910633968803321
Titolo	Dosimetry / / edited by Thomas J. Fitzgerald, Maryann Bishop-Jodoin
Pubbl/distr/stampa	London : , : IntechOpen, , 2022
ISBN	1-80355-460-6
Descrizione fisica	1 online resource (188 pages)
Disciplina	612.01448
Soggetti	Radiation dosimetry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1. Clinical Considerations for Modern Dosimetry and Future Directions for Treatment Planning -- 2. Treatment of Head and Neck Cancers Using Radiotherapy -- 3. Parameters Affecting Pre-Treatment Dosimetry Verification -- 4. Absolute, Reference, and Relative Dosimetry in Radiotherapy -- 5. Thermoluminescence Dosimetry Technique for Radiation Detection Applications -- 6. Comparative Dosimetric Study between $^{60}\text{Co}$ and $^{192}\text{Ir}$ BEBIG High Dose Rate Sources, Used in Brachytherapy, Using Monte Carlo N-Particle Extended -- 7. Intensity Modulated Radiation Therapy Plan (IMRT) Verification Using Indigenous Heterogeneous Phantom -- 8. Nuclear Medicine Dosimetry in Paediatric Population.
Sommario/riassunto	The book discusses multiple issues associated with modern dosimetry in physics and treatment planning and how investigators from diverse world centers and institutions approach problem-solving in these important areas. It examines topics including pretreatment validation and factors affecting reference dosimetry. It also addresses unique issues affecting pediatric populations as well as the modern role of thermoluminescence validation. Several chapters discuss intensity modulation, including defining modern problems associated with both treatment planning and the definition of tumor and normal tissue contours. Furthermore, the book examines the role of imaging as both a vehicle to define tumor targets and normal tissue as well as a tool for dose validation.