

1. Record Nr.	UNINA9910460599303321
Autore	Tsoulfanidis Nicholas
Titolo	Measurement and Detection of Radiation // Nicholas Tsoulfanidis
Pubbl/distr/stampa	Boca Raton, FL : , : CRC Press, , [2010] ©2011
ISBN	0-429-19388-2 1-4398-9465-5
Edizione	[Third edition.]
Descrizione fisica	1 online resource (510 p.)
Disciplina	539.7/7
Soggetti	Radiation - Measurement Nuclear counters Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Front cover; Contents; Preface to the First Edition; Preface to the Second Edition; Preface to the Third Edition; Authors; Chapter 1: Introduction to Radiation Measurements; Body; Chapter 2: Statistical Errors of Radiation Counting; Chapter 3: Review of Atomic and Nuclear Physics; Chapter 4: Energy Loss and Penetration of Radiation through Matter; Chapter 5: Gas-Filled Detectors; Chapter 6: Scintillation Detectors; Chapter 7: Semiconductor Detectors; Chapter 8: Relative and Absolute Measurements; Chapter 9: Introduction to Spectroscopy; Chapter 10: Electronics Chapter 11: Data Analysis Methods Chapter 12: Photon ( -Ray and X-Ray) Spectroscopy; Chapter 13: Charged-Particle Spectroscopy; Chapter 14: Neutron Detection and Spectroscopy; Chapter 15: Activation Analysis and Related Techniques; Chapter 16: Health Physics Fundamentals; Chapter 17: Applications of Radiation Detection; Appendix A: Useful Constants and Conversion Factors; Appendix B: Atomic Masses and Other Properties of Isotopes; Appendix C: Alpha, Beta, and Gamma Sources Commonly Used; Appendix D: Tables of Photon Attenuation Coefficients*; Appendix E: Table of Buildup Factor Constants Back cover

## Sommario/riassunto

... a very good textbook, providing a solid introduction to radiation detection and measurement for upper-level undergraduate and first-year graduate students in the field of nuclear science and engineering.- Medical Physics, July 2012 This book provides a solid introduction to radiation detection and measurement for upper-level undergraduate and first-year graduate students in the fields of nuclear science and engineering. ... it may be used as a good background reference by those interested in a refresher course in the physics underlying detection. The review chapters on statistics, atomic and nuc

---