1. Record Nr. UNINA9910818759003321 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.) SCI051000SCI024000MED080000 Classificazione Disciplina 539.7/7 Soggetti Radiation - Measurement Nuclear counters Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali 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 MethodsChapter 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 Isotopesa; Appendix C: Alpha, Beta, and Gamma Sources Commonly Used; Appendix D: Tables of Photon Attenuation Coefficients*; Appendix E: Table of Buildup Factor Constants

... a very good textbook, providing a solid introduction to radiation

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detection and measurement for upper-level undergraduate and first-year graduate students in the field of nuclear science and engineering.-Medical Physics, July 2012This 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