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Autore	MacDonald Carolyn
Titolo	An Introduction to X-Ray Physics, Optics, and Applications // Carolyn MacDonald
Pubbl/distr/stampa	Princeton, NJ : , : Princeton University Press, , [2017] ©2017
ISBN	9781523124596 1523124598
Descrizione fisica	1 online resource (367 pages) : illustrations
Disciplina	621.36
Soggetti	X-ray optics X-ray spectroscopy Optical detectors
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Frontmatter -- CONTENTS -- Preface -- Acknowledgments -- List of Constants and Variables -- PART I. FOUNDATIONS -- 1. INTRODUCTION -- 2. A CASE STUDY: NUCLEAR MEDICINE -- PART II. X-RAY GENERATION -- 3. THERMAL SOURCES AND PLASMAS -- 4. CHARACTERISTIC RADIATION, X- RAY TUBES, AND X- RAY FLUORESCENCE SPECTROSCOPY -- 5. SOURCE INTENSITY, DIVERGENCE, AND COHERENCE -- 6. BREMSSTRAHLUNG RADIATION AND X- RAY TUBES -- 7. SYNCHROTRON RADIATION -- 8. X- RAY LASERS -- PART III. X-RAY INTERACTIONS WITH MATTER -- 9. PHOTOELECTRIC ABSORPTION, ABSORPTION SPECTROSCOPY, IMAGING, AND DETECTION -- 10. COMPTON SCATTERING -- 11. COHERENT SCATTER I: REFRACTION AND REFLECTION -- 12. REFRACTIVE AND REFLECTIVE OPTICS -- 13. COHERENT SCATTER II: DIFFRACTION -- 14. SINGLE-CRYSTAL AND THREE-DIMENSIONAL DIFFRACTION -- 15. DIFFRACTION OPTICS -- Appendix: solutions to End-of-Chapter Problems -- Index
Sommario/riassunto	In this book, Carolyn A. MacDonald provides a comprehensive introduction to the physics of a wide range of x-ray applications, optics, and analysis tools. Theory is applied to practical considerations

of optics and applications ranging from astronomy to medical imaging and materials analysis. Emphasizing common physical concepts that underpin diverse phenomena and applications of x-ray physics, the book opens with a look at nuclear medicine, motivating further investigations into scattering, detection, and noise statistics. The second section explores topics in x-ray generation, including characteristic emission, x-ray fluorescence analysis, bremsstrahlung emission, and synchrotron and laser sources. The third section details the main forms of interaction, including the physics of photoelectric absorption, coherent and Compton scattering, diffraction, and refractive, reflective, and diffractive optics. Applications in this section include x-ray spectroscopy, crystallography, and dose and contrast in radiography. A bibliography is included at the end of every chapter, and solutions to chapter problems are provided in the appendix. Based on a course for advanced undergraduates and graduate students in physics and related sciences and also intended for researchers, *An Introduction to X-Ray Physics, Optics, and Applications* offers a thorough survey of the physics of x-ray generation and of interaction with materials. Common aspects of diverse phenomena emphasized. Theoretical development tied to practical applications. Suitable for advanced undergraduate and graduate students in physics or related sciences, as well as researchers. Examples and problems include applications drawn from medicine, astronomy, and materials analysis. Detailed solutions are provided for all examples and problems.

2. Record Nr.	UNINA9910956264003321
Autore	Jonsen Albert R
Titolo	The birth of bioethics / / Albert R. Jonsen
Pubbl/distr/stampa	New York, : Oxford University Press, 1998
ISBN	1-280-84374-8 9786610843749 0-19-975982-0
Edizione	[1st ed.]
Descrizione fisica	1 online resource (448 p.)
Disciplina	174/.2/0973
Soggetti	Medical ethics - United States - History Bioethics - United States - History
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.
Nota di contenuto	Intro -- Contents -- Preface -- Acknowledgments -- Part I: Bioethical Beginnings: The People and Places -- 1. Great Issues of Conscience: Medical Ethics Before Bioethics -- 2. The Theologians: Rediscovering the Tradition -- 3. The Philosophers: Clarifying the Concepts -- 4. Commissioning Bioethics: The Government in Bioethics, 1974-1983 -- Part II: Bioethical Beginnings: The Problems -- 5. Experiments Perilous: The Ethics of Research with Human Subjects -- 6. Splicing Life: Genetics and Ethics -- 7. The Miracle of Modern Medicine: The Ethics of Organ Transplantation and Artificial Organs -- 8. Who Should Live? Who Should Die? The Ethics of Death and Dying -- 9. O Brave New World! The Ethics of Human Reproduction -- Part III: Discipline, Discourse, and Ethos -- 10. Bioethics As a Discipline -- 11. Bioethics As a Discourse -- 12. Bioethics-American and Elsewhere -- Epilogue -- Index -- A -- B -- C -- D -- E -- F -- G -- H -- I -- J -- K -- L -- M -- N -- O -- P -- Q -- R -- S -- T -- U -- V -- W -- X -- Y -- Z.
Sommario/riassunto	A broad history of the growing field of bioethics. Covering the period 1947-1987, it examines the origin and evolution of the debates over human experimentation, genetic engineering, organ transplantation, termination of life-sustaining treatment and new reproductive technologies. It assesses the contributions of philosophy, theology, law and the social sciences to the expanding discourse of bioethics. Written

by one of the field's founders, it is based on extensive archival research into resources that are difficult to obtain and on interviews with many leading figures. A readable account of the development of bioethics, the book stresses the history of ideas but does not neglect the social and cultural context and the people involved.
