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Note generali	Descripción basada en la versión impresa.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1. Origin of nuclear science -- 2. Elementary particles -- 3. Nuclei, isotopes and isotope separation -- 4. Nuclear mass stability -- 5. Unstable nuclei and radioactive decay -- 6. Nuclear structure -- 7. Absorption of nuclear radiation -- 8. Radiation effects on matter -- 9. Detection and measurement techniques -- 10. Energetics of nuclear reactions -- 11. Mechanisms and models of nuclear reactions -- 12. The origin of the universe and nucleosynthesis -- 13. Cosmic radiation and radioelements in nature -- 14. The actinide and transactinide elements -- 15. Radiation biology and radiation protection -- 16. Particle accelerators -- 17. Production of radionuclides -- 18. Uses of radioactive tracers -- 19. Principles of nuclear power -- 20. Nuclear power reactors -- 21. The nuclear fuel cycle -- 22. Behavior of radionuclides in the environment.
Sommario/riassunto	This book covers the field of radiochemistry, or nuclear chemistry--the study of radiation from an atomic and molecular perspective, including elemental transformation and reaction effects, as well as physical, health and medical properties. It includes the latest developments in research and the current hot topics in the field.