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Altri autori (Persone)	DiehlRoland HartmannDieter H PrantzosNikos
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Nota di contenuto	pt. 1. The role of radioactivities in astrophysics -- pt. 2. Specific sources of cosmic isotopes -- pt. 3. Special places to observe cosmic isotopes -- pt. 4. Tools for the study of radioactivities in astrophysics -- pt. 5. Epilogue.
Sommario/riassunto	This book introduces the reader to the field of nuclear astrophysics, i.e. the acquisition and reading of measurements on unstable isotopes in different parts of the universe. The authors explain the role of radioactivities in astrophysics, discuss specific sources of cosmic isotopes and in which special regions they can be observed. More specifically, the authors address stars of different types, stellar explosions which terminate stellar evolutions, and other explosions triggered by mass transfers and instabilities in binary stars. They also address nuclear reactions and transport processes in interstellar space, in the contexts of cosmic rays and of chemical evolution. A special chapter is dedicated to the solar system which even provides material samples. The book also contains a description of key tools which astrophysicists employ in those particular studies and a glossary of key terms in astronomy with radioactivities.