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Titolo	Understanding the Enrichment of Heavy Elements by the Chemodynamical Evolution Models of Dwarf Galaxies // by Yutaka Hirai
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Disciplina	520
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Nota di contenuto	Introduction -- Enrichment of r-Process Elements in Dwarf Spheroidal Galaxies in the Chemodynamical Evolution Models -- Early Chemodynamical Evolution of Dwarf Galaxies Deduced from r-Process Elements -- Enrichment of Zinc in Dwarf Galaxies -- Eciency of Metal Mixing in Dwarf Galaxies -- Enrichment of r-Process Elements in a Cosmological Context -- Conclusions and Future Prospects.
Sommario/riassunto	This book addresses the mechanism of enrichment of heavy elements in galaxies, a long standing problem in astronomy. It mainly focuses on explaining the origin of heavy elements by performing state-of-the-art, high-resolution hydrodynamic simulations of dwarf galaxies. In this book, the author successfully develops a model of galactic chemodynamical evolution by means of which the neutron star mergers can be used to explain the observed abundance pattern of the heavy

elements synthesized by the rapid neutron capture process, such as europium, gold, and uranium in the Local Group dwarf galaxies. The book argues that heavy elements are significant indicators of the evolutionary history of the early galaxies, and presents theoretical findings that open new avenues to understanding the formation and evolution of galaxies based on the abundance of heavy elements in metal-poor stars.
