Record Nr. UNINA9910451366503321 Autore Scerri Eric R **Titolo** The periodic table [[electronic resource]]: its story and its significance // Eric R. Scerri Oxford;; New York,: Oxford University Press, 2007 Pubbl/distr/stampa **ISBN** 1-280-84650-X 0-19-534567-3 1-4294-5942-5 Descrizione fisica 1 online resource (671 p.) Disciplina 546/.8 Soggetti Periodic law Chemical elements Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references (p. 387-328) and index. Nota di contenuto The periodic system: an overview -- Quantitative relationships among the elements -- Discoverers of the system -- Mendeleev -- Prediction and accommodation: the acceptance of Mendeleev's periodic system -- The nucleus and the periodic table : radioactivity, atomic number, and isotopy -- The electron and the chemical periodicity -- Electronic explanations of the periodic system developed by chemists --Quantum mechanics and the periodic table -- Astrophysics, nucleosynthesis, and more chemistry. Sommario/riassunto The periodic table is one of the most potent icons in science. It lies at the core of chemistry and embodies the most fundamental principles of the field. The one definitive text on the development of the periodic table by van Spronsen (1969), has been out of print for a considerable time. The present book provides a successor to van Spronsen, but goes further in giving an evaluation of the extent to which modern physics has, or has not, explained the periodic system. The book is written in a

lively style to appeal to experts and interested lay-persons alike.