1. Record Nr. UNINA9910496138303321 Autore Heilbron J. L. Titolo Lawrence and His Laboratory . Volume I.: A History of the Lawrence Berkeley Laboratory / / J. L. Heilbron and Robert W. Seidel Pubbl/distr/stampa Berkeley, California:,: University of California Press,, [1989] ©1989 **ISBN** 0-520-34108-2 0-585-34665-8 Edizione [First edition.] Descrizione fisica 1 online resource (volumes): illustrations (some color) California Studies in the History of Science Series;; Volume 5 Collana Disciplina 539.7/0720794/67 Soggetti Physicists - United States Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali No more published. "A Centennial book"--V. 1, p. [iii]. Includes index. Includes bibliographical references (volume 1, page [525]-575) and Nota di bibliografia index. Nota di contenuto El Dorado -- A Million Volts or Bust -- Foundations of the Rad Lab --Research and Development, 1932-36 -- Cast of Characters --American Cyclotronics -- Technology Transfer -- New Lines -- Little-Team Research with Big-Time Consequences -- Between Peace and War. Sommario/riassunto The Radiation Laboratory in Berkeley, California, was the birthplace of particle accelerators, radioisotopes, and modern big science. This first volume of its history is a saga of physics and finance in the Great Depression, when a new kind of science was born. Here we learn how Ernest Lawrence used local and national technological, economic, and manpower resources to build the cyclotron, which enabled scientists to produce high-voltage particles without high voltages. The cyclotron brought Lawrence forcibly and permanently to the attention of leaders of international physics in Brussels at the Solvay Congress of 1933. Ever since, the Rad Lab has played a prominent part on the world stage. The book tells of the birth of nuclear chemistry and nuclear medicine in the Laboratory, the discoveries of new isotopes and the transuranic

elements, the construction of the ultimate cyclotron, Lawrence's Nobel

Prize, and the energy, enthusiasm, and enterprise of Laboratory staff. Two more volumes are planned to carry the story through the Second World War, the establishment of the system of national laboratories, and the loss of Berkeley's dominance of high-energy physics.