Record Nr. UNINA9910456114403321 Autore Winterberg Friedwardt <1929-> Titolo The release of thermonuclear energy by inertial confinement [[electronic resource]]: ways towards ignition / / Friedwardt Winterberg Hackensack, N.J., : World Scientific, c2010 Pubbl/distr/stampa **ISBN** 1-282-76356-3 9786612763564 981-4295-91-4 Descrizione fisica 1 online resource (436 p.) Disciplina 539.764 Inertial confinement fusion Soggetti Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Preface: Overview: Contents: List of Figures: List of Tables: 1 Introduction: 2 Nuclear Fission and Fusion Reactions: 3 The Thermonuclear Plasma; 4 Collision Processes in Thermonuclear Plasmas: 5 Shock and Compression Waves: 6 Thermonuclear Ignition and Burn; 7 Ignition by Fission Explosives; 8 Non-Fission Ignition; 9 Thermonuclear Lenses and Shaped Charges; 10 The Signi.cance of Thermonuclear Microexplosions for Fundamental Research; 11 Recent Developments: 12 The Future A Comparison of the Recently Proposed Super Marx Generator Approach to Thermonuclear Ignition with the DT Laser Fusion-Fission Hybrid Concept by the Lawrence Livermore National LaboratoryAbout the Author: Index Sommario/riassunto This is a comprehensive book which describes the three essential parts of what is known as 'Inertial Confinement Fusion': the way thermonuclear burn takes place in non-magnetized, magnetized and fusion-fission hybrid assemblies; the pulse power ignition technology (nuclear, electrical, optical and chemical); and, the applications of

inertial confinement fusion technology for peaceful nuclear energy on

Earth and in space. An integrated single text of such extensive

technical width is a rare find, and younger generations of nuclear engineers any physicists will appreciate this book as a companio