Record Nr. UNINA9910140792703321 Autore Fan Liang-Shih Titolo Chemical looping systems for fossil energy conversions [[electronic resource] /] / Liang-Shih Fan Hoboken, NJ,: Wiley-AIChE, 2010 Pubbl/distr/stampa **ISBN** 1-118-06313-9 1-282-77332-1 9786612773327 0-470-87288-8 0-470-87287-X Descrizione fisica 1 online resource (436 p.) Disciplina 621.402/3 621.4023 Fluidized-bed combustion Soggetti Fossil fuels - Combustion **Energy conversion** Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Includes index. Note generali Nota di contenuto CHEMICAL LOOPING SYSTEMS FOR FOSSIL ENERGY CONVERSIONS: CONTENTS; PREFACE; CHAPTER 1: INTRODUCTION; CHAPTER 2: CHEMICAL LOOPING PARTICLES: CHAPTER 3: CHEMICAL LOOPING COMBUSTION; CHAPTER 4: CHEMICAL LOOPING GASIFICATION USING GASEOUS FUELS; CHAPTER 5: CHEMICAL LOOPING GASIFICATION USING SOLID FUELS: CHAPTER 6: NOVEL APPLICATIONS OF CHEMICAL LOOPING TECHNOLOGIES; SUBJECT INDEX; AUTHOR INDEX Sommario/riassunto This book presents the current carbonaceous fuel conversion technologies based on chemical looping concepts in the context of traditional or conventional technologies. The key features of the chemical looping processes, their ability to generate a sequestrationready CO2 stream, are thoroughly discussed. Chapter 2 is devoted entirely to the performance of particles in chemical looping technology

and covers the subjects of solid particle design, synthesis, properties,

and reactive characteristics. The looping processes can be applied for combustion and/or gasification of carbon-based material s