1. Record Nr. UNINA9910367747603321 Autore Adams II Thomas A **Titolo** Modeling and Simulation of Energy Systems MDPI - Multidisciplinary Digital Publishing Institute, 2019 Pubbl/distr/stampa **ISBN** 3-03921-519-1 Descrizione fisica 1 electronic resource (496 p.) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Sommario/riassunto Energy Systems Engineering is one of the most exciting and fastest growing fields in engineering. Modeling and simulation plays a key role in Energy Systems Engineering because it is the primary basis on which energy system design, control, optimization, and analysis are based. This book contains a specially curated collection of recent research articles on the modeling and simulation of energy systems written by top experts around the world from universities and research labs, such as Massachusetts Institute of Technology, Yale University, Norwegian University of Science and Technology, National Energy Technology Laboratory of the US Department of Energy, University of Technology Sydney, McMaster University, Queens University, Purdue University, the University of Connecticut, Technical University of Denmark, the University of Toronto, Technische Universität Berlin, Texas A&M, the University of Pennsylvania, and many more. The key research themes covered include energy systems design, control systems, flexible operations, operational strategies, and systems analysis. The addressed areas of application include electric power generation, refrigeration cycles, natural gas liquefaction, shale gas treatment, concentrated solar power, waste-to-energy systems, micro-gas turbines, carbon dioxide

Brayton cycles, to name but a few.

capture systems, energy storage, petroleum refinery unit operations,