1. Record Nr. UNINA9910349503103321 Autore Al-Waeli Ali H. A Titolo Photovoltaic/Thermal (PV/T) systems: principles, design, and applications / / by Ali H.A. Al-Waeli, Hussein A. Kazem, Migdam Tariq Chaichan, Kamaruzzaman Sopian Pubbl/distr/stampa Cham:,: Springer,, [2019] © 2019 **ISBN** 3-030-27824-7 Descrizione fisica 1 online resource (295 pages): illustrations Disciplina 621.31244 Soggetti Energia solar fotovoltaica Energia tèrmica solar Energia elèctrica - Producció Energies renovables Materials science Force and energy Renewable energy resources **Energy systems Energy Materials** Renewable and Green Energy **Energy Systems** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Introduction -- PV/T design principles -- Advances in PV/T systems --Nota di contenuto PV/T system feasibility in world deserts -- Environmental conditions and its effect on PV/T performance -- Applications of PV/T systems. This book provides the most up-to-date information on hybrid solar Sommario/riassunto cell and solar thermal collectors, which are commonly referred to as Photovoltaic/Thermal (PV/T) systems. PV/T systems convert solar radiation into thermal and electrical energy to produce electricity, utilize more of the solar spectrum, and save space by combining the two structures to cover lesser area than two systems separately.

Research in this area is growing rapidly and is highlighted within this

book. The most current methods and techniques available to aid in overall efficiency, reduce cost and improve modeling and system maintenance are all covered. In-depth chapters present the background and basic principles of the technology along with a detailed review of the most current literature. Moreover, the book details design criteria for PV/T systems including residential, commercial, and industrial applications. Provides an objective and decisive source for the supporters of green and renewable source of energy Discusses and evaluates state-of-the-art PV/T system designs Proposes and recommends potential designs for future research on this topic.