

1. Record Nr.	UNINA9910557304703321
Autore	Arcuri Natale
Titolo	High Efficient Buildings in Mediterranean Area : Challenges and Perspectives
Pubbl/distr/stampa	Basel, Switzerland, : MDPI - Multidisciplinary Digital Publishing Institute, 2021
Descrizione fisica	1 online resource (234 p.)
Soggetti	Research and information: general Technology: general issues
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	<p>The Building sector requires a conspicuous considerable amount of energy for services related to annual air-conditioning and the thermal comfort of indoor spaces. The design of highly efficient low-energy buildings is often a challenging task, especially in the mediterranean area, where the balanced requirement for heating and cooling energy does not usually permit a high level of envelope insulation in order to avoid summer overheating. This topical Special Issue of Energies is dedicated to "High Efficient Buildings in Mediterranean Area: Challenges and Perspectives" and collects studies related to the assessment and evaluation of systems and technologies for building energy management and control in the Mediterranean climate, with the aim of optimizing the building-plant system and reducing energy use. This collection of papers presents the latest research results related to the topic; these articles offer valuable insights into the energy simulation of highly efficient buildings, propose innovative envelope solutions, such as green roofs, Trombe walls, and PCM, and investigate the use of renewable sources such as photovoltaic systems. The topics also include the innovative use and control of Venetian blinds and fixed solar shades in order to reduce energy consumption and preserve visual comfort, as well as an interesting economic analysis based on the cost-optimal approach.</p>

