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| Soggetti | Photovoltaic power generation<br>Solar energy<br>Chemical engineering<br>Environmental engineering<br>Photovoltaics<br>Solar Thermal Energy<br>Environmental Process Engineering |
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| Nota di bibliografia | Includes bibliographical references. |
| Nota di contenuto | Chapter-I General Introduction -- Chapter-II Water Quality -- Chapter-III Solar cell and Photo-voltaic Effect -- Chapter-IV Photovoltaic (PV) Module and its Panel and Array -- Chapter-V Concepts of Greenhouse and its Application -- Chapter-VI Construction of Greenhouse integrated Semi-transparent Photo-Voltaic Thermal System (GiSPVT) -- Chapter-VII Cultivation of Vegitables in Winter -- Chapter-VIII Thermal Modeling of Greenhouse integrated Semi-transparent Photo-voltaic Thermal (GiSPVT) system: Quasi-steady state analysis -- Chapter-IX Thermal Modeling of GiSPVT Solar Dryer: Quasi-steady state analysis -- Chapter-X Thermal Modeling of Greenhouse integrated Semi-transparent Photo-voltaic Thermal (GiSPVT) system: A periodic analysis -- Chapter-XI Application of PVT Technology. |
| Sommario/riassunto | This book discusses topics such as solar energy, heat transfer, solar cell and photovoltaic module, greenhouse-integrated semi-transparent photovoltaic thermal (GiSPVT) system for agriculture and aquaculture, GiSPVT solar dryer, and PVT water and air collector for water heating, |

air heating, biogas heating and swimming pool heating, etc. The book also discusses energy matrices, including EPBT, EPF, and LCCE. It includes pedagogical elements such as exercises, tables, and figures including problems and objective questions at the end of each chapter. Further, it includes the unit conversion from FPS system to SI unit of each parameter, namely length, energy, power, velocity, pressure force, etc., and some standard constants used in examples. Quasi steady state and periodic modeling of PVT technology described in the book is a useful reference for students, researchers, and academicians to design solar energy-based technology.