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	ISBN	3-030-56164-X
	Edizione	[3rd ed. 2021.]
	Descrizione fisica	1 online resource (XXII, 650 p. 186 illus., 42 illus. in color.)
	Collana	Green Energy and Technology, , 1865-3537
	Disciplina	621.042
	Soggetti	Renewable energy sources
		Electric power production
		Environmental engineering
		Biotechnology
		Bioremediation
		Energy storage
		Energy policy
		Energy and state
		Renewable Energy
		Electrical Power Engineering
		Mechanical Power Engineering
		Environmental Engineering/Biotechnology
		Mechanical and Thermal Energy Storage
		Energy Policy, Economics and Management
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di contenuto	Introduction: Basic Definitions Energy Sources Mechanical Energy and Electrical Energy Internal Energy and Enthalpy Energy Balances Energy Balances Energy Production Energy Conversion Energy Storage Energy Coupling Sustainability in Energy Technologies Renewable Energy Energy Management and Economics.
	Sommario/riassunto	This revised and updated 3rd edition of the book allows readers to develop a practical understanding of the major aspects of energy. It

also includes two new chapters addressing renewable energy, and energy management and economics. The book begins by introducing basic definitions, and then moves on to discuss the primary and secondary energy types, internal energy and enthalpy, and energy balance, heat of reaction and heat transfer. Each chapter features fully solved example problems and practice problems to support learning and the application of the topics discussed, including: energy production and conversion; energy conservation; energy storage; energy coupling; sustainability in energy systems; renewable energy; and energy management and economics. Written for students across a range of engineering and science disciplines, the book provides a comprehensive study guide. It is particularly suitable for courses in energy technology, sustainable energy technologies and energy conversion & management, and offers an ideal reference text for students, engineers, energy researchers and industry professionals. A updated solutions manual to this textbook's problems is available to course instructors on request from the author and online on www. springer.com.