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Titolo	Heat Energy Recovery for Industrial Processes and Wastes / / edited by David Borge-Diez, Enrique Rosales-Asensio
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2023
ISBN	3-031-24374-9
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (245 pages)
Collana	Green Energy and Technology, , 1865-3537
Disciplina	621.402
Soggetti	Thermodynamics
	Heat engineering
	Heat - Transmission
	Mass transfer
	Production engineering
	Refuse and refuse disposal
	Energy storage
	Engineering Thermodynamics, Heat and Mass Transfer
	Process Engineering
	Waste Management/Waste Technology
	Mechanical and Thermal Energy Storage
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Introduction -- Techniques for recovering exhaust heat from gas turbines -- Exhaust gas recirculation on natural gas combined cycle power plants -- Heat Recovery for Biomass Boilers -- Heat Recovery from Compost -- Wastewater Treatment Plants exhaust gases recovery.
Sommario/riassunto	This book provides new techniques for recovering exhaust heat from gas turbines, natural gas combined cycle power plants, biomass boilers, and waste heat recovery from compost and wastewater treatment plants. The book provides modeling for the study and comparison of combined cycle power plants with a heat recovery boiler of three pressure levels with reheating, inserting a technological improvement of solar hybridization and partial regeneration in the gas

turbine. It assesses the environmental impacts and economic sustainability associated with these improvements. In addition, it proposes emissions minimization, with exhaust gas recirculation (EGR), and emissions treatment with a CO_2 capture plant (CCP) and combined cycle power plant. Finally, it provides new insights into heat recovery from compost and exhaust gases recovery from wastewater treatment plants.