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Sommario/riassunto	<p>This book is designed to summarize and synthesize Professor Chen Weirong's many years of research and related technical progress in the field. It describes the key technologies and application status of fuel cell, solar energy and energy storage in railway transportation. New energy locomotive is a new type of power supply system rail locomotive with new energy as the power source, and it is one of the main ways of energy saving and emission reduction in rail transit. At present, new energy locomotives have been moving towards research and development diversification, product concentration and large-scale operation, forming an innovative situation with fuel cell electric locomotives and energy storage electric locomotives as the main, supplemented by a variety of other new energy locomotives, and the common development of urban rail transit applications and engineering locomotives. Compared with traditional electric locomotives and diesel locomotives, new energy locomotives represented by fuel cell, energy storage, hybrid and solar electric locomotives have the advantages of low/no emissions, energy saving, clean and low noise, and can be widely used in station shunting, engineering operation vehicles and urban trams.</p>