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Nota di contenuto	Introduction approx 60 pages -- Different types of Solar concentrating collectors approx 50 pages -- Parabolic solar trough collector technology thermal and optical performance design and diverse applications approx 50 pages -- Thermal performance of parabolic solar trough collectors exploring receiver ube geometry approx 50 pages -- Performance enhancements in parabolic solar trough collectors via insert diversity approx 50 pages -- Secondary reflectors in parabolic solar trough collectors approx 40 pages -- Nanofluid applications in parabolic solar trough collectors approx 50 pages.
Sommario/riassunto	This book presents a comprehensive exploration of solar energy sources, with a particular emphasis on comparing them to fossil fuels regarding their impact on global warming. It covers various aspects of solar energy power generation in practice, including details about the

sun, such as the solar constant, different types of solar radiation, solar time, and the direction of beam radiation. Additionally, the book delves into the thermal performance of different types of solar concentrating collectors, focusing specifically on the fundamental principles of parabolic solar trough collectors. Drawing upon historical contexts, it examines the detailed evolution of these collectors in terms of thermal and optical performance, and it addresses techniques developed to tackle challenges such as non-uniform heat flux distribution on the receiver tube's outermost surface. .