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Autore	Miao Jianyin
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Soggetti	Aerospace engineering Astronautics Materials - Analysis Solar system Energy storage Thermodynamics Heat engineering Heat - Transmission Mass transfer Aerospace Technology and Astronautics Characterization and Analytical Technique Space Physics Mechanical and Thermal Energy Storage Engineering Thermodynamics, Heat and Mass Transfer
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Nota di contenuto	Introduction -- Space Environment -- Design of Spacecraft Thermal Control Subsystem -- Typical Thermal Control Technologies for Spacecraft -- Typical Thermal Control Design Cases of Spacecraft -- Thermal Analysis Technology -- Spacecraft Thermal Testing.
Sommario/riassunto	This book presents fundamental theories, design and testing methodologies, and engineering applications concerning spacecraft thermal control systems, helping readers gain a comprehensive understanding of spacecraft thermal control systems and technologies. With abundant design methods, advanced technologies and typical

applications to help them grasp the basic concepts and principles of engineering applications, it is mainly intended for engineering and technical staff engaged in spacecraft thermal control areas. The book discusses the thermal environments commonly used for space flight missions, rules and regulations for system design, thermal analysis and simulation, and thermal testing methods, as well as the design and validation of the thermal control systems for Chinese spacecraft, such as the Shenzhou spacecraft and Chang'e Lunar Lander and Rover. It also introduces them to communication and remote sensing satellites and presents advanced thermal control technologies developed in recent years, including heat transfer, heat insulation, heating, refrigeration and thermal sensor technologies. Addressing the design and validation of thermal control systems for various types of Chinese spacecraft, the book offers a valuable theoretical and practical reference guide for researchers and engineers alike.
