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Nota di contenuto	Operating conditions of details of gas turbines and materials applied to them -- Resistance to deformation of heat resisting materials at static and cyclic Loading -- Resistance to destruction of heat resisting materials at static and cyclic loading -- Influence of technology factors and long operation on structure and property of heat resisting materials -- Corrosion of materials gtu and its influence on strength -- Protective coatings.
Sommario/riassunto	This book discusses several mechanical and material problems that are typical for gas turbine components. It discusses accelerated tests and other methods for increasing the reliability of gas turbine engines. Special attention is given to non-traditional methods for calculating the strength characteristics and longevity of the main components. This first volume focuses on the selection of materials, deformation and destruction mechanisms in connection with stationary and non-stationary loading, and types of material damage such as the thermal fatigue. Particular attention is paid to the issues of the properties of

single crystal alloys, the relationship between structure and properties, the influence of technological factors and long-term operation. The characteristics of creep resistance, crack resistance, and resistance to cyclic deformation of different alloys are given.