

1. Record Nr.	UNINA9910781407503321
Titolo	Aerospace thermal structures and materials for a new era [[electronic resource] /] / edited by Earl A. Thornton
Pubbl/distr/stampa	Reston, Va., : American Institute of Aeronautics and Astronautics, Inc., 1995
ISBN	1-60086-636-0 1-60086-417-1
Descrizione fisica	1 online resource (400 pages) : illustrations
Collana	Progress in astronautics and aeronautics ; ; v. 168
Altri autori (Persone)	ThorntonEarl A
Soggetti	Space vehicles - Thermodynamics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"Technical papers selected from the second University of Virginia Thermal Structures Conference, Charlottesville, Virginia, October 18-20, 1994, and subsequently revised for this volume."
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	""Cover""; ""Title""; ""Copyright""; ""Preface""; ""Table of Contents""; ""Chapter 1. Analysis of Thermal Structures""; ""Numerical Modeling of a Cryogenic Fluid within a Fuel Tank""; ""Thermocryogenic Buckling and Stress Analyses of a Partially Filled Cryogenic Tank Subjected to Cylindrical Strip Heating""; ""Random Vibration of Thermally Buckled Plates""; ""On Thermally-Induced Vibrations of Structures in Space""; ""Transient Thermal-Structural Response of a Space Structure with Thermal Control Materials""; ""Chapter 2. Experimental Studies of Thermal Structures"" ""Boundary Conditions for Aerospace Thermal-Structural Tests"" Inverse Analysis for Structural Boundary Condition Characterization of a Panel Test Fixture""; ""An Experimental Investigation of Thermally Induced Vibrations of Spacecraft Structures""; ""Chapter 3. Analysis of High Temperature Composites""; ""Recent Advances in the Mechanics of Functionally Graded Composites""; ""Micromechanical Analysis of Thermal Response in Textile-Based Composites""; ""Recent Advances in the Sensitivity Analysis for the Thermomechanical Postbuckling of Composites Panels"" ""Laser Induced Thermal Stresses in Composite Materials"" Quantification of Uncertainties of Hot-Wet Composite Long Term

Behavior"; "Minimizing Thermal Deformation by Using Layered Structures"; "Harmonic Generalized Thermoelastic Waves in Anisotropic Laminated Composites"; "The Superplastic Deformation Behavior of Physical Vapor Deposited Ti-6Al-4V"; "Chapter 4. Performance of Aircraft Materials"; "Aluminum Alloys for Subsonic Aircraft"; "Materials Requirements for Aircraft Engines"; "Benefits Estimation of New Engine Technology Insertion"; "Author Index for Volume"
