1. Record Nr. UNINA9910464671503321

Autore	Johnson Wayne <1946->
Titolo	Rotorcraft aeromechanics / / Wayne Johnson, NASA Ames Research Center [[electronic resource]]
Pubbl/distr/stampa	Cambridge : , : Cambridge University Press, , 2013
ISBN	1-107-23693-2 1-107-34191-4 1-107-34441-7 1-107-25562-7 1-139-23565-6 1-107-34816-1 1-107-34566-9
Descrizione fisica	1 online resource (xix, 927 pages) : digital, PDF file(s)
Collana	Cambridge aerospace series ; ; 36
Disciplina	629.132/3
Soggetti	Helicopters - Aerodynamics Helicopters - Design and construction Rotors (Helicopters)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from publisher's bibliographic system (viewed on 05 Oct 2015).
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Machine generated contents note: 1. Introduction; 2. Notation; 3. Hover; 4. Vertical flight; 5. Forward flight wake; 6. Forward flight; 7. Performance; 8. Design; 9. Wings and wakes; 10. Unsteady aerodynamics; 11. Actuator disk; 12. Stall; 13. Computational aerodynamics; 14. Noise; 15. Mathematics of rotating systems; 16. Blade motion; 17. Beam theory; 18. Dynamics; 19. Flap motion; 20. Stability; 21. Flight dynamics; 22. Comprehensive analysis.
Sommario/riassunto	A rotorcraft is a class of aircraft that uses large-diameter rotating wings to accomplish efficient vertical take-off and landing. The class encompasses helicopters of numerous configurations (single main rotor and tail rotor, tandem rotors, coaxial rotors), tilting proprotor aircraft, compound helicopters, and many other innovative configuration concepts. Aeromechanics covers much of what the rotorcraft engineer needs: performance, loads, vibration, stability, flight dynamics, and

	noise. These topics include many of the key performance attributes and the often-encountered problems in rotorcraft designs. This comprehensive book presents, in depth, what engineers need to know about modelling rotorcraft aeromechanics. The focus is on analysis, and calculated results are presented to illustrate analysis characteristics and rotor behaviour. The first third of the book is an introduction to rotorcraft aerodynamics, blade motion, and performance. The remainder of the book covers advanced topics in rotary wing aerodynamics and dynamics.

2. Record Nr. UNINA9910144821003321

Titolo	28th International Conference on Advanced Ceramics and Composites [[electronic resource]] : a collection of papers presented at the 28th International Conference and Exposition on Advanced Ceramics and Composites held in conjunction with the 8th International Symposium on Ceramics in Energy Storage and Power Conversion Systems : January 25-30, 2004, Cocoa Beach, Florida . B / / Edgar Lara-Curzio, Michael J. Readey, editors
Pubbl/distr/stampa	Westerville, OH, : American Ceramic Society, c2004
ISBN	1-282-31370-3 9786612313707 0-470-29119-2 0-470-29158-3
Descrizione fisica	1 online resource (672 p.)
Collana	Ceramic engineering & science proceedings, , 0196-6219 ; ; v. 25/4
Altri autori (Persone)	Lara-CurzioEdgar <1963-> ReadeyMichael J
Disciplina	620.14 666
Soggetti	Composite materials Ceramic materials Structural analysis (Engineering) Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.

Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	28th International Conference on Advanced Ceramics and Composites: B; Contents; Preface; Mechanical Properties of Engineering Ceramics, Composites and Aerospace Materials; Properties of Rare Earth Oxynitride Glasses and the Implications for High Temperature Behaviour of Silicon Nitride Ceramics; Mechanical Properties of Porous Silicon Nitride From Fine/coarse Powder Mixture; Production and Characterization of Ultra Refractory HfB2-Sic Composites; Sintering Behavior of Dense Nanocrystalline Zirconia Ceramics: A Comparative Investigation Direct Evaluation of Local Thermal Conduction in Silicon Nitrides with Enhanced Grain GrowthMechanical Properties of Pressureless Sintered SiC-AIN Composites Obtained Without Sintering Bed; The Influence of Beta Eucryptite Glassceramics on the Structure and Main Properties of Alumina Ceramics; Mechanical Behavior of Sic-Polycrystalline Fiber-Bonded-Ceramics; Design, Manufacture and Quality Assurance of C/C-Sic Composites for Space Transportation Systems; Effect of Fabrication Process on Internal Friction of SiC/SiC Composites Effect of Interphase on Transthickness Tensile Strength of High-Purity Silicon Carbide CompositesThrough-Thickness Properties of 2D Woven SiC/SiC Panels with Various Microstructures; An Assessment of Variabitity in the Average Tensile Properties of a Melt-Infiltrated SiC/SiC Composite; Net Shape Manufacturing of Fabric Reinforced Oxide/Oxide Components via Resin Transfer Moulding and Pyrolysis; In Situ Reaction Deposition Coating of LaPO4 ON AI2O3 Fabric Cloth for AI2O3/AI2O3 Composites; Effect of Alkali Choice on Geopolymer Properties Thermal Shock Resistance of NEXTELTM6I0 and NEXTELTM720 Continuous Fiber-Reinforced Mullite Matrix CompositesTensile Properties of NextelTM 720-Based Tows and Minicomposites Subjected to High-Temperature Soaking; Effect of Monazite Coating on Tensile Behavior of NextelTM 720 Fibers at High Temperatures; BN Interphase Processed by LP-CVD from Tris(Dimethylamino)Borane and Characterized Using SiC/SiC Minicomposites; Oxidation Effects on Mechanical and Electrical Properties of Electroconductive Ceramic Composites Oxidation Kinetics and Strength Degradation of Carbon Fibers in a Cracked Ceramic Matrix CompositeMechanical Behavior and Oxidation-Resistance of an Orthogonal 3D -SIC Fiber/Carbon Matrix Composite; Mechanical Properties of Ceramic Matrix Composites Exposed to Rig Tests; Composition and Microstructural Design for Improved Wear Properties in SiAlON Ceramics; Plasma-Treated Silicon Nitrides Exhibiting Ultra-Low Friction; Tribological Properties of Si3N4 / Si3N4-BN Alternate Layered Composites; A Motorcycle Brake System with C/C-SiC Composite Brake Discs The Tribological Property Effects of Graphite Within a Composite Pad-Cast Iron Braking System
Sommario/riassunto	A collection of Papers Presented at the 28th International Conference and Exposition on Advanced Ceramics and Composites held in conjunction with the 8th International Symposium on Ceramics in Energy Storage and Power Conversion Systems.