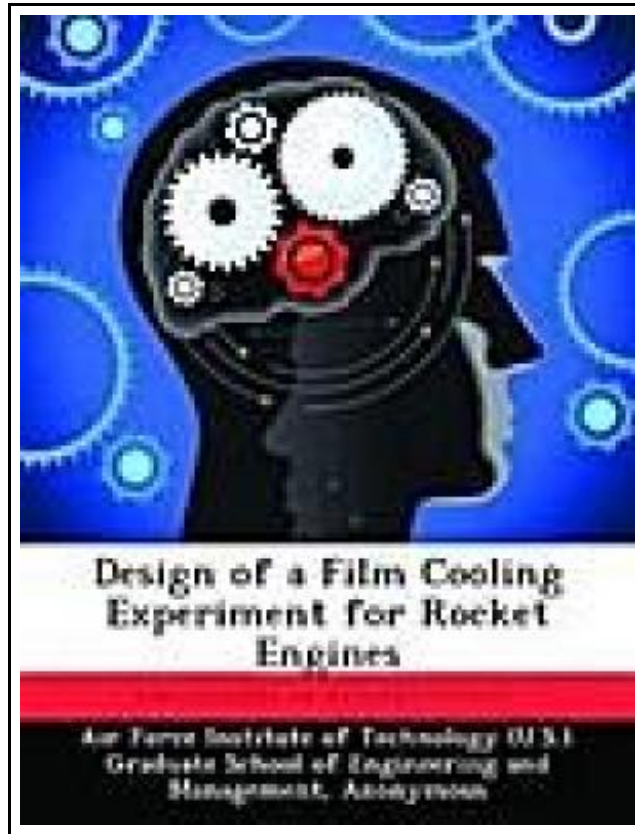


Design of a Film Cooling Experiment for Rocket Engines



Filesize: 2.21 MB

Reviews

Completely essential study publication. Better then never, though i am quite late in start reading this one. I am very easily could get a delight of reading a composed publication.

(Marilyne Macejkovic)

DESIGN OF A FILM COOLING EXPERIMENT FOR ROCKET ENGINES

[DOWNLOAD](#)

Biblioscholar Sep 2012, 2012. Taschenbuch. Book Condition: Neu. 246x189x9 mm. This item is printed on demand - Print on Demand Neuware - The Film Cooling Rig (FCR) is a new test rig at the Air Force Institute of Technology (AFIT) to study film cooling for rocket engine applications. The original researcher designed, built, and then utilized the FCR to study radial curvature effects on film cooling for a non-combustion environment. This effort modified the FCR by adding propane-air combustion. Modular stainless steel test sections were produced to allow study of various curvatures and coolant injection angles. A pre-mixed burner was designed and built to deliver main flow mass flow rates necessary to produce blowing ratios as low as 0.5. A water cooling system was designed for the entire FCR, but only implemented for the curved test sections. Instrumentation in this system allows calculation of the average heat flux to the test section. Once the necessary FCR and lab modifications were accomplished, the operating range of the FCR was developed and tested using infrared thermography. Surface temperature measurements near the cooling hole showed no cooling effect for 13 major test configurations, and many more minor variations. The lack of cooling was caused by inadequate spreading of the burner flow to the test section wall. Without the necessary main flow momentum across the test section wall, the coolant flow did not turn and adhere to the wall. Instead, it jetted into the main flow without cooling the wall as expected. Recommendations included modifications to the existing rig to correct the main flow issue, along with a completely new FCR design incorporating the lessons learned from this research to produce a simpler, more effective rig. The new design allows the laser and infrared diagnostics of the first rig without the manufacturing complications that...

[Read Design of a Film Cooling Experiment for Rocket Engines Online](#)[Download PDF Design of a Film Cooling Experiment for Rocket Engines](#)

Related Kindle Books



Psychologisches Testverfahren

Reference Series Books LLC Nov 2011, 2011. Taschenbuch. Book Condition: Neu. 249x191x7 mm. This item is printed on demand - Print on Demand Neuware - Quelle: Wikipedia. Seiten: 100. Kapitel: Myers-Briggs-Typindikator, Keirsey Temperament Sorter, DISG,...

[Download eBook »](#)



Programming in D

Ali Cehreli Dez 2015, 2015. Buch. Book Condition: Neu. 264x182x53 mm. This item is printed on demand - Print on Demand Neuware - The main aim of this book is to teach D to readers...

[Download eBook »](#)



Six Steps to Inclusive Preschool Curriculum: A UDL-Based Framework for Children's School Success

Brookes Publishing Co. Paperback. Book Condition: new. BRAND NEW, Six Steps to Inclusive Preschool Curriculum: A UDL-Based Framework for Children's School Success, Eva M. Horn, Susan B. Palmer, Gretchen D. Butera, Joan A. Lieber, How...

[Download eBook »](#)



DK Readers Day at Greenhill Farm Level 1 Beginning to Read

DK CHILDREN. Paperback. Book Condition: New. Paperback. 32 pages. Dimensions: 8.8in. x 5.7in. x 0.2in. This Level 1 book is appropriate for children who are just beginning to read. When the rooster crows, Greenhill Farm springs...

[Download eBook »](#)



Depression: Cognitive Behaviour Therapy with Children and Young People (Paperback)

Taylor Francis Ltd, United Kingdom, 2009. Paperback. Book Condition: New. 242 x 174 mm. Language: English . Brand New Book. In recent years there has been an increase in research into childhood depression, and it...

[Download eBook »](#)



Twitter Marketing Workbook: How to Market Your Business on Twitter (Paperback)

Createspace Independent Publishing Platform, United States, 2016. Paperback. Book Condition: New. Workbook. 279 x 216 mm. Language: English . Brand New Book ***** Print on Demand *****.Twitter Marketing Workbook 2016 Learn how to market your

[Save eBook »](#)



Mass Media Law: The Printing Press to the Internet (Paperback)

Peter Lang Publishing Inc, United States, 2013. Paperback. Book Condition: New. New.. 251 x 175 mm. Language: English . Brand New Book. Digital media law is now the dynamic legal territory. Mass Media Law: The

[Save eBook »](#)



To Thine Own Self (Paperback)

Dog Ear Publishing, United States, 2011. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****.Carefree and self assured Carolyn loves her life. Her uncle runs

[Save eBook »](#)



A Smarter Way to Learn JavaScript: The New Approach That Uses Technology to Cut Your Effort in Half (Paperback)

Createspace, United States, 2014. Paperback. Book Condition: New. 251 x 178 mm. Language: English . Brand New Book ***** Print on Demand *****.The ultimate learn-by-doing approachWritten for beginners, useful for experienced developers who want to

[Save eBook »](#)



Alphabet Tracing (Paperback)

Createspace, United States, 2015. Paperback. Book Condition: New. 254 x 203 mm. Language: English . Brand New Book ***** Print on Demand *****.Alphabet Tracing, Letters A-Z, provides extensive focus on alphabet tracing and printed letter

[Save eBook »](#)