



Laser Diagnostic System Validation and Ultra-Compact Combustor Characterization

By Terry B. Hankins

Biblioscholar Nov 2012, 2012. Taschenbuch. Book Condition: Neu. 246x189x10 mm. This item is printed on demand - Print on Demand Neuware - The AFIT combustion optimization and analysis laser (COAL) lab is now completely operational and is state-of-the-art in combustion diagnostics. The objective of this research is to perform a validation of a laser diagnostic system and to begin the characterization of a small-scale model of an ultra-compact combustor (UCC). Validation of the laser system was accomplished by using planar laser induced fluorescence (PLIF) on a laminar premixed hydrogen-air flame produced by a Hencken burner. OH species concentrations are measured. Flame temperatures are determined with a two line fluorescence technique using different transitions in the (1,0) band of the OH (A-X) electronic transition system. Comparisons are made to existing research to prove accuracy. Characterization of the UCC began by developing an operational procedure. A proper starting condition and operating regime has been established. Pressures, temperature, and emissions data have been recorded for a range of equivalence ratios. Comparisons are made to previous computational fluid dynamic (CFD) research. Combustion efficiencies of over 99% have been recorded when operating the small-scale UCC. Future work will involve using PLIF to take non-intrusive measurements...



READ ONLINE
[6.9 MB]

Reviews

This publication may be really worth a go through, and a lot better than other. It really is written in simple terms and never difficult to understand. Once you begin to read the book, it is extremely difficult to leave it before concluding.

-- **Natalie Abbott**

This book will not be simple to get going on reading but extremely exciting to read through. Yes, it can be play, still an interesting and amazing literature. I am very easily could possibly get a delight of reading a written book.

-- **Rene Olson**

Other 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, Eignungstest für das Medizinstudium, Adult Attachment Interview,...



JA] early childhood parenting :1-4 Genuine Special(Chinese Edition)

paperback. Book Condition: New. Ship out in 2 business day, And Fast shipping, Free Tracking number will be provided after the shipment.Paperback. Pub Date :2006-01-01 Pages: 179 Publisher: the China Pictorial Our book is all new book of genuine special spot any...



Programming in D: Tutorial and Reference

Ali Cehreli, 2015. Paperback. Book Condition: New. 254 x 178 mm. Language: English . Brand New Book ***** Print on Demand *****.The main aim of this book is to teach D to readers who are new to computer programming. Although having experience...



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 who are new to computer programming. Although...



Index to the Classified Subject Catalogue of the Buffalo Library; The Whole System Being Adopted from the Classification and Subject Index of Mr. Melvil Dewey, with Some Modifications .

Rarebooksclub.com, United States, 2013. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book ***** Print on Demand *****.This historic book may have numerous typos and missing text. Purchasers can usually download a free scanned copy of the...



Two Treatises: The Pearle of the Gospell, and the Pilgrims Profession to Which Is Added a Glasse for Gentlewomen to Dresse Themselves By. by Thomas Taylor Preacher of Gods Word to the Towne of Reding. (1624-1625)

Proquest, Eebo Editions, United States, 2010. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book ***** Print on Demand *****.EARLY HISTORY OF RELIGION. Imagine holding history in your hands. Now you can. Digitally preserved and previously accessible...