Hypersonic And High Temperature Gas Dynamics

Synopsis

Written by best-selling author, John D. Anderson, Jr., this book covers the subject of sustained hypersonic flight, the technology behind the Space Shuttle and other high speed flight vehicles. Anderson’s book offers timely and up-to-date information on hypersonic flow-an area that has grown explosively in the last decade.

Book Information

Series: Mcgraw-Hill Series in Aeronautical and Aerospace Engineering
Hardcover: 690 pages
Publisher: Mcgraw-Hill Book Company (December 1, 1988)
Language: English
ISBN-10: 0070016712
ISBN-13: 978-0070016712
Product Dimensions: 1.8 x 6.8 x 9.8 inches
Shipping Weight: 2.4 pounds
Average Customer Review: 5.0 out of 5 stars 7 customer reviews
Best Sellers Rank: #3,095,246 in Books (See Top 100 in Books) #87 inÂ Books > Engineering & Transportation > Engineering > Aerospace > Gas Dynamics #1385 inÂ Books > Textbooks > Engineering > Aeronautical Engineering #2190 inÂ Books > Science & Math > Physics > Dynamics

Customer Reviews

"John Anderson’s books are consistently well written. It’s an excellent book I’ll keep for years to come." --This text refers to an out of print or unavailable edition of this title.

Dr. John Anderson, Jr. received his Ph.D. in Aeronautical and Astronautical Engineering in 1966 from the Ohio State University. Dr. Anderson served as professor of Aerospace Engineering at the University of Maryland where he became the Glenn L. Martin Distinguished Professor for Education in Aerospace Engineering. He is an Honorary Fellow of AIAA and a Fellow of the Royal Aeronautical Society. Among his numerous accomplishments, he was awarded the AIAA Pendray Aerospace Literature Award ""for writing textbooks in aerospace engineering which have received worldwide acclaim."" In 1999 he retired from the University of Maryland and was appointed Professor Emeritus. He is currently the Curator for Aerodynamics at the National Air and Space Museum. --This text refers to an out of print or unavailable edition of this title.

This is my favorite Anderson text, next to Modern Compressible Flow and Computational Fluid Dynamics. Both are 5 star texts.There are a surprising amount of typos in the text. Just be careful. I found them because I parsed the text carefully during my outlines of the chapter material. You find about 1-2 typos per chapter.Looking at it in front of me, it's a beast. I did not formally cover the first 445 pages of Hypersonics but I did cover the last half of the book while studying High-Temperature Gas Dynamics. The high-temp sections offer a very good roadmap for learning. All of the topics are brought together very well during this portion of the text.The information on Hypersonics appeared exhaustive. If it is recommended for hypersonics, I would get it. It covers inviscid AND viscous hypersonic flow in parts 1 and 2. Part 3 is high-temp. This is an excellent INTRODUCTORY text for graduate level students. The author does recommend many texts that will allow the reader to delve further into the subject matter.

A subject that continues to be a focus of Aeronautical Engineering research by the finest author of my generation. A reasonably priced classic.

great

Another great book by Anderson. Very clear and concise. The binding always falls apart on these AIAA published books though.

This book in conjunction with Anderson's "Modern Compressible Flow with Historical Perspective" will give you and excellent fundamental background in high temp gas dynamics. I think the third section alone of this book (which introduces stastical mechanics, kinetic theory, chemically reacting flows, equilibrium and nonequilibrium flows) is worth the price.

I just finished reading an old edition, whihc is late 80's and it's incredible, I can't wait to get this new edition. If you like aerodynamics and are interested in space re-entry vehicles, for sure you should have this book in your personal library.

While this description refers to an out of print edition by McGraw-Hill, the book has been republished by the American Institute of Aeronautics and Astronautics (AIAA) with the ISBN 156347459X.

Hypersonic and High-Temperature Gas Dynamics, Second Edition (AIAA Education) Hypersonic and High Temperature Gas Dynamics Viscous Hypersonic Flow: Theory of Reacting and Hypersonic Boundary Layers (Dover Books on Engineering) High Fiber Recipes: 101 Quick and Easy High Fiber Recipes for Breakfast, Snacks, Side Dishes, Dinner and Dessert (high fiber cookbook, high fiber diet, high fiber recipes, high fiber cooking) Molecular Gas Dynamics and the Direct Simulation of Gas Flows (Oxford Engineering Science Series) Hypersonic Airbreathing Propulsion (AIAA Education) Physics of Shock Waves and High-Temperature Hydrodynamic Phenomena (Dover Books on Physics) The Manufacture of High Temperature Superconducting Tapes and Films Introduction to the High Temperature Oxidation of Metals High-Temperature Superconductivity: An Introduction Gas Chromatography and 2D-Gas Chromatography for Petroleum Industry: The Race for Selectivity High Blood Pressure Cure: How To Lower Blood Pressure Naturally in 30 Days (Alternative Medicine, Natural Cures, Natural Remedies, High Blood Pressure ... Cures for High Blood Pressure, High Bl) International Fuel Gas Code 2006 (International Fuel Gas Code) Molecular Gas Dynamics: Theory, Techniques, and Applications (Modeling and Simulation in Science, Engineering and Technology) Nonequilibrium Gas Dynamics and Molecular Simulation (Cambridge Aerospace Series) Introduction to Physical Gas Dynamics Gas Dynamics (3rd Edition) Fundamentals of Gas Dynamics Gas Dynamics (The Physics of Astrophysics) Gas Dynamics, Volume 1