1.	Record Nr.	UNINA9910132295303321
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	Titolo	High enthalpy gas dynamics / / Ethirajan Rathakrishnan
	Pubbl/distr/stampa	Hoboken, New Jersey : , : John Wiley & Sons Inc., , 2015
	ISBN	1-118-82191-2
		1-119-11312-1
		1-118-82190-4
	Descrizione fisica	1 online resource (781 p.)
	Disciplina	533/.2
	Soggetti	Gas dynamics
		Gases - Thermal properties
		Enthalpy
	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 index.
	Nota di contenuto	Cover; Title Page; Copyright; Dedication; About the Author; Preface; Chapter 1: Basic Facts; 1.1 Introduction; 1.2 Enthalpy versus Internal Energy; 1.3 Gas Dynamics of Perfect Gases; 1.4 Compressible Flow; 1.5 Compressibility; 1.6 Supersonic Flow; 1.7 Speed of Sound; 1.8 Temperature Rise; 1.9 Mach Angle; 1.10 Summary; Exercise Problems; References; Chapter 2: Thermodynamics of Fluid Flow; 2.1 Introduction; 2.2 First Law of Thermodynamics; 2.3 The Second Law of Thermodynamics (Entropy Equation); 2.4 Thermal and Calorical Properties; 2.5 The Perfect Gas; 2.6 Summary; Exercise Problems ReferencesChapter 3: Wave Propagation; 3.1 Introduction; 3.2 Velocity of Sound; 3.3 Subsonic and Supersonic Flows; 3.4 Similarity Parameters; 3.5 Continuum Hypothesis; 3.6 Compressible Flow Regimes; 3.7 Summary; Exercise Problems; References; Chapter 4: High-Temperature Flows; 4.1 Introduction; 4.2 Importance of High-Enthalpy Flows; 4.3 Nature of High-Enthalpy Flows; 4.4 Most Probable Macrostate; 4.5 Counting the Number of Microstates for a given Macrostate; 4.6 Evaluation of Thermodynamic Properties; 4.7 Evaluation of Partition Function in terms of 4.8 High-Temperature Thermodynamic Properties of a Single-Species Gas4.9 Equilibrium Properties of High-Temperature Air; 4.10 Kinetic

Sommario/riassunto	This is an introductory level textbook which explains the elements of high temperature and high-speed gas dynamics. Readers will gain an understanding how the thermodynamic and transport properties of high temperature gas are determined from a microscopic viewpoint of the molecular gas dynamics, and how such properties affect the flow features, the shock waves and the nozzle flows, from a macroscopic viewpoint. In addition, the experimental facilities for the study on the high enthalpy flows are described in a concise and easy-to-understand style. Practical examples are given throughout empha