1. Record Nr. UNINA9910828390903321 Autore Annamalai Kalyan Titolo Advanced thermodynamics engineering / / by Kalyan Annamalai, Ishwar K. Puri and Milind A. Jog Boca Raton, FL:,: CRC Press, an imprint of Taylor and Francis,, 2011 Pubbl/distr/stampa **ISBN** 0-429-19157-X 1-4398-0571-7 Edizione [Second edition.] Descrizione fisica 1 online resource (1134 p.) Collana Computational Mechanics and Applied Analysis Classificazione SCI024000SCI065000TEC009070 Disciplina 621.402/1 Soggetti **Thermodynamics** 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 Front Cover; Contents; List of Tables in Appendix A; List of Figures in Appendix B: Preface to Second Edition: Nomenclature: Thermolab Excel®-Based Software for Thermodynamic Properties, Flame Temperatures of Fuels, Conversion Units, Math Functions and Other Properties; Four Important Equations in Analysis of Thermal Systems; Chapter 1: Introduction; Chapter 2: First Law of Thermodynamics; Chapter 3: Second Law of Thermodynamics and Entropy; Chapter 4: Availability: Chapter 5: Postulatory (Gibbsian) Thermodynamics: Chapter 6: State Relationships for Real Gases and Liquids Chapter 7: Thermodynamic Properties of Pure FluidsChapter 8: Thermodynamic Properties of Mixtures: Chapter 9: Phase Equilibrium for a Mixture; Chapter 10: Stability; Chapter 11: Chemically Reacting Systems; Chapter 12: Reaction Direction and Chemical Equilibrium; Chapter 13: Availability Analysis for Reacting Systems: Chapter 14: Thermodynamics and Biological Systems; Problems; A Summary of Chapterwise Formulae; Appendix A: Tables; Appendix B: Figures; Bibliography; Back Cover Sommario/riassunto Advanced Thermodynamics Engineering, Second Edition is designed for readers who need to understand and apply the engineering physics of thermodynamic concepts. It employs a self-teaching format that reinforces presentation of critical concepts, mathematical relationships, and equations with concrete physical examples and explanations of

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