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Titolo	Atmospheric thermodynamics : elementary physics and chemistry // Gerald R. North and Tatiana L. Erukhimova [[electronic resource]]
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Descrizione fisica	1 online resource (xi, 267 pages) : digital, PDF file(s)
Disciplina	551.522
Soggetti	Atmospheric thermodynamics
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	Title from publisher's bibliographic system (viewed on 05 Oct 2015).
Nota di bibliografia	Includes bibliographical references (p. 263-264) and index.
Nota di contenuto	Introductory concepts -- Gases -- First Law of Thermodynamics -- Second Law of Thermodynamics -- Air and water -- Profiles of the atmosphere -- Thermodynamic charts -- Thermochemistry -- Thermodynamic equation -- Appendix A: Units and numerical values of constants -- Appendix B: Notation and abbreviations -- Appendix C: Answers for selected problems.
Sommario/riassunto	This textbook presents a uniquely integrated approach in linking both physics and chemistry to the study of atmospheric thermodynamics. The book explains the classical laws of thermodynamics, focuses on various fluid systems, and, recognising the increasing importance of chemistry in the meteorological and climate sciences, devotes a chapter to chemical thermodynamics which includes an overview of photochemistry. Although students are expected to have some background knowledge of calculus, general chemistry and classical

physics, the book provides set-aside refresher boxes as useful reminders. It contains over 100 diagrams and graphs to supplement the discussions, and a similar number of worked examples and exercises, with solutions included at the end of the book. It is ideal for a single-semester advanced course on atmospheric thermodynamics, and will prepare students for higher-level synoptic and dynamics courses.
