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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Part I: Energy and the environment : the landscape : A primer on climate change / Melinda Marquis, Pieter Tans -- Global energy landscape and energy security / V.S. Arunachalam, Anshu Bharadwaj -- Sustainability and energy conversions / Franklin M. Orr, Jr., Sally M. Benson -- Energy cost of materials : materials for thin-film photovoltaics as an example / Ajay K. Gupta, Charles A.S. Hall -- Economics of materials / Lester B. Lave, Frank R. Field III -- Global energy flows / Richard Sassoon -- Global materials flows / Fridolin Krausmann -- Carbon dioxide capture and sequestration / Sally M.

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## Sommario/riassunto

How will we meet rising energy demands? What are our options? Are there viable long-term solutions for the future? Learn the fundamental physical, chemical and materials science at the heart of:

- Renewable/non-renewable energy sources
- Future transportation systems
- Energy efficiency
- Energy storage

Whether you are a student taking an energy course or a newcomer to the field, this textbook will help you understand critical relationships between the environment, energy and sustainability. Leading experts provide

comprehensive coverage of each topic, bringing together diverse subject matter by integrating theory with engaging insights. Each chapter includes helpful features to aid understanding, including a historical overview to provide context, suggested further reading and questions for discussion. Every subject is beautifully illustrated and brought to life with full color images and color-coded sections for easy browsing, making this a complete educational package. Fundamentals of Materials for Energy and Environmental Sustainability will enable today's scientists and educate future generations.

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