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Nota di contenuto	1. Fossil Energy, Introduction -- 2. Oil And Natural Gas: Global Resources -- 3. Petroleum and Oil Sands Exploration and Production -- 4. Petroleum Refining and Environmental Control and Environmental Effects -- 5. Oil Shale Processing, Chemistry and Technology -- 6. Developments in Internal Combustion Engines -- 7. Alaska Gas Hydrate Research and Field Studies -- 8. Gas to Liquids Technologies -- 9. Coal and Peat: Global Resources -- 10. Coal Preparation -- 11. Coal to Liquids Technologies -- 12. Mining Industries and their Sustainable Management -- 13. CO2 Reduction and Coal-Based Electricity Generation -- 14. Pulverized Coal-Fired Boilers and Pollution Control -- 15. Natural Gas Power -- 16. CO2 Capture and Sequestration -- 17. Economic Measures to Curb GHG Emissions: Carbon Tax and Cap-and-Trade -- 18. Use of Simulations to Reduce Pollutant Emissions from Coal-Fired Power Plants -- Index.

The word sustainability shares its root with sustenance. In the context of modern society, sustenance is inextricably linked to the use of energy. Fossil energy currently represents nearly 85% of global energy consumption. This Second Edition of "Fossil Energy" provides an authoritative yet concise reference on all aspects of this key resource: mining, producing, refining, and usage. Most of the 15 peer-reviewed articles from the First Edition have been updated and, in some instances, extensively revised. In addition, the volume includes four new chapters covering hydraulic fracturing, process simulation tools used in pollution mitigation, and policy options such as carbon pricing and cap-and-trade for reducing carbon emissions. Written by recognized international authorities in the field, this volume represents an essential resource for scientists and engineers working on the development of energy resources, fossil or alternative, and reflects the essential role of energy supplies in supporting a sustainable future.
