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Titolo	Geothermal Energy : From Theoretical Models to Exploration and Development // by Ingrid Stober, Kurt Bucher
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ISBN	3-030-71685-6
Edizione	[2nd ed. 2021.]
Descrizione fisica	1 online resource (392 pages)
Collana	Earth and Environmental Science Series
Disciplina	333.88
Soggetti	Environment Renewable energy sources Electric power production Environmental Sciences Renewable Energy Electrical Power Engineering Mechanical Power Engineering
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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Chapter 1: Thermal Structure of The Earth -- Chapter 2: History of Geothermal Energy Use -- Chapter 3: Geothermal Energy Resources -- Chapter 4: Uses of Geothermal Energy -- Chapter 5: Geothermal Potential Perspectives Final -- Chapter 6: Geothermal Probes Final -- Chapter 7: Groundwater Wells -- Chapter 8: Hydrothermal Systems -- Chapter 9: EGS -- Chapter 10: High-Enthalpy Geothermal Systems -- Chapter 11: Environmental Issues -- Chapter 12: Drilling Techniques -- Chapter 13: Geophysical Methods -- Chapter 14: Hydraulic Tests -- Chapter 15: Hydrochemistry -- Chapter 16: References.
Sommario/riassunto	The internal heat of the planet Earth represents an inexhaustible reservoir of thermal energy known as Geothermal Energy. The 2nd edition of the book covers the geologic and technical aspects of developing all forms of currently available systems using this "renewable" green energy. The book presents the distribution and transport of thermal energy in the Earth. Geothermal Energy is a base load energy available at all times independent of climate and weather.

The text treats the efficiency of diverse shallow near surface installations and deep geothermal systems including hydrothermal and petrothermal techniques and power plants in volcanic high-enthalpy fields. The book also discusses environmental aspects of utilizing different forms of geothermal energy, including induced seismicity, noise pollution and gas release to the atmosphere. Chapters on hydraulic well tests, chemistry of deep hot water, scale formation and corrosion, development of geothermal probes, well drilling techniques and geophysical exploration complete the text. This book, for the first time, covers the full range of utilization of Geothermal Energy.
