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Nota di contenuto	Chapter1. Hydrogen revolution -- Chapter2. Hydrogen as energy carrier -- Chapter3. Hydrogen in reduction processes -- Chapter4. Hydrogen production from recycled gases -- Chapter5. Hydrogen ironmaking -- Chapter6. Hydrogen from electrolysis -- Chapter7. Hydrogen direct reduced iron -- Chapter8. Hydrogen plasma reduction -- Chapter9. Flash ironmaking -- Chapter10. Hydrogen economy.
Sommario/riassunto	The book describes the main approaches to produce and synthesize iron and steel through hydrogen-based technologies. Depending on the processing route and on the energy demand, the best available techniques and the most forward-looking solutions are explained. The

book is edited with the contribution representing a range of industries in order to evaluate the industrial feasibility of each selected technology. It presents the most efficient solutions applied by ironmaking and steelmaking factories all around the world. Describes a potential low carbon and economically attractive route for steelmaking particularly for countries where natural gas is inexpensive; Shines a light on the necessity for evolution in iron and steel industries through hydrogen technology because of energy demand and environmental issues; Explores research findings on the use of hydrogen for its reducing properties in ferrous metallurgy to directly gain metals from ores.