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Sommario/riassunto	Fuel cells are electrochemical energy conversion devices that convert hydrogen and oxygen into water, producing electricity and heat in the process and providing fuel efficiency and reductions in pollutants. Demand for this technology is growing rapidly. Fuel cells are being commercialized for stationary and portable electricity generation, and as a replacement for internal combustion engines in automobiles. Proton Exchange Membrane (PEM) fuel cells in particular are experiencing an upsurge. They have high power density and can vary their output quickly to meet shifts in power demand. Until now, there has been little written about this important technology. This book lays the groundwork for fuel cell engineers, technicians and students. It covers the fundamental aspects of fuel cell design, electrochemistry of the technology, heat and mass transport, system design and applications to bring this technology to professionals at all levels. * Comprehensive guide for engineers, researchers and policymakers * Covers theory and practice of PEM fuel cells * Contains hundreds of original illustrations and real-life engineering examples