Fuel Processing. For Fuel Cells

Description: Fuel cell technology attracts increasing attention nowadays, because it offers potential for lowering emissions owing to a potentially superior efficiency compared to conventional power generation. Fuel cells require hydrogen for their operation and consequently numerous technologies are under worldwide investigation for hydrogen storage aiming for distributed, mobile and portable applications.

The lack of hydrogen infrastructure on the short term along with the highly attractive energy density of liquid, fossil and regenerative fuels has created wide-spread research efforts in the field of distributed and on-board hydrogen generation from various fuels. This complex chemical process, generally named fuel processing, is the subject of this book.

Adopting a unique integrated engineering approach, this text covers all aspects of fuel processing, from the fundamentals to catalysts, reactors, chemical plant components and integrated system design, right up to complete fuel processor systems and cost and production issues.

Alongside providing an introduction to the subject, this reference also contains recent research developments, making it an invaluable handbook for chemical, power and process engineers, electrochemists, catalytic chemists, materials scientists and engineers in power technology.

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