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Abstract
This review describes the principles and history of electrolysis and elucidates the reasons for the development of certain varieties of electrolyzers, namely alkaline electrolyzers, solid polymer electrolyzers, high-temperature electrolyzers, and high-pressure electrolyzers, by outlining the physical and electrochemical basics applying to electrolysis. Materials, design, and operating conditions for alkaline electrolysis are described in further detail, concluding with a brief discussion of the status of electrolysis today.

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