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Nota di contenuto	Exchange reactions in Na ₃ AlF ₆ –Al ₂ O ₃ –SiO ₂ melts -- Kinetics and mechanism of Si(IV) electroreduction in Na ₃ AlF ₆ –Al ₂ O ₃ –SiO ₂ melts on Al cathode -- Current Yield -- Industrial Tests -- Modern Research Trends.
Sommario/riassunto	This monograph presents the theoretical background of the industrial process for the production of Al–Si alloys in standard aluminum electrolyzers. It reviews the physical chemistry and electrochemistry of cryolite melts containing silica and focuses on analyzing the exchange reactions in Na ₃ AlF ₆ –Al ₂ O ₃ –SiO ₂ melts. It presents the kinetics and mechanism of Si(IV) electroreduction in Na ₃ AlF ₆ –Al ₂ O ₃ –SiO ₂ melts on Al cathodes while the current yields as well as industrial tests performed are discussed. The modern research trends in the field are also overviewed. Providing readers with information not easily obtained in any other single source, this book is of great interest to researchers, graduates, and professionals working in the fields of electrochemistry and technology of cryolite-based melts.

