Title (en)

METHOD FOR ELECTROLYSIS OF MOLTEN SALT, ELECTROLYTIC CELL, AND PROCESS FOR PRODUCING Ti USING SAID METHOD

Title (de)

VERFAHREN ZUR SCHMELZFLUSSELEKTROLYSE, ELEKTROLYSEZELLE UND VERFAHREN ZUR HERSTELLUNG VON TI NACH DIESEM VERFAHREN

Title (fr)

PROCÉDÉ D ÉLECTROLYSE DE SEL FONDU, PILE ÉLECTROLYTIQUE, ET PROCÉDÉ DE PRODUCTION DE Ti À L AIDE DUDIT PROCÉDÉ

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Application

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Abstract (en)

The present invention provides a method for electrolyzing molten salt that can enhance the concentration of metal-fog forming metal in the molten salt by carrying out the electrolysis under conditions that the molten salt containing the chloride of metal-fog forming metal is supplied from one end of an electrolytic cell to a space between an anode and a cathode in a continuous or intermittent manner to provide a flow rate in one direction to the molten salt in the vicinity of the surface of the cathode and thus to allow the molten salt to flow in one direction in the vicinity of the surface of the cathode. According to the present invention, while high current efficiency is maintained, only the molten salt enriched with metal-fog forming metal such as Ca can be effectively taken out. Further, this method can easily be carried out by using the electrolytic cell according to the present invention. Furthermore, the application of the method for electrolyzing molten salt according to the present invention to the production of Ti by Ca reduction can realize the production of metallic Ti with high efficiency. Thus, the method for electrolyzing molten salt, the electrolytic cell, and the process for producing Ti, each according to the present invention, can be effectively utilized in the production of Ti by Ca reduction.

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