Title (en)

PROCESS FOR PRODUCING Ti THROUGH Ca REDUCTION AND APPARATUS THEREFOR

Title (de)

VERFAHREN ZUR HERSTELLUNG VON TI DURCH CA-REDUKTION UND VORRICHTUNG DAFÜR

Title (fr)

PROCÉDÉ SERVANT À PRODUIRE DU Ti VIA LA RÉDUCTION PAR DU Ca ET APPAREIL POUR CELA

Publication

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Application

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Priority

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Abstract (en)

An apparatus for producing Ti by Ca reduction by the invention includes a reaction tank retaining a molten salt in which a molten salt CaCl 2 is contained and Ca is dissolved, an electrolytic cell retaining a molten salt containing CaCl 2 , and a continuum body which is movably constructed while part of the continuum body is immersed in the molten salt either within the reaction tank or electrolytic cell. In the inventive method for producing Ti by Ca reduction, the molten salt in the electrolytic cell is electrolyzed to generate Ca on the cathode side which is transported to the reaction tank while deposited on and adheres to the continuum body, and TiCl 4 is supplied to the reaction tank to generate Ti. The invention enables a feed rate of TiCl 4 as a raw material to be enhanced, and continuous production to be performed, while allowing Ca consumed in the TiCl 4 reduction reaction to be replenished by electrolysis of CaCl 2 , which proves to have an economical advantage, thus becoming means for efficiently and economically producing high-purity metallic Ti to widely be applied.

IPC 8 full level

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