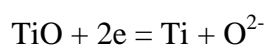
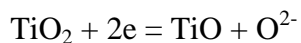


Investigation on the Reducing Mechanism and Reducing Potential of Titanium Dioxide

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Using molten calcium chloride as electrolyte, reduction mechanism and reduction potential of titanium dioxide were studied by means of cyclic voltammogram and chronoamperometry methods in the temperature range of 800°C -860°C. Experimental results shown that the reduction process of titanium dioxide was conducted in the following two steps:



The relationships between reduction potential and temperature were also obtained.

Keywords: reduction; titanium oxide; molten calcium chloride; electrochemistry