Research of Alkaline Fuel Cell

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ABSTRACT

Various kinds of relevant packages, such as bipolar plate, a board channel, catalyst of the alkaline fuel cell are complicated and expensive, if we can research and develop the new-type alkaline fuel cell. The catalyst, reduce and make the threshold, can make the cost reduce effectively. Use the metal and plastics to utilize metal and plastic processing easy, cheap and anticorrosive characteristic as the main material of fuel cell in the experiment, it is due to its merits of low cost, good corrosion resistance, efficient heat transfer good electrical conductivity, and being robust compact, as well as lightweight. so to have, different from over the alkaline fuel cell on this research , develop out the new form for the alkaline fuel cell. This research use metal network to electroplates catalysts , fix the electrode in the gas and liquid mixing area and utilize the stainless steel network , carbon cloth and Renee nickel, electroplate various kinds of catalysts , carries on the relevant experiment to test, will test the data analysis , will probe into the impact on alkaline fuel cell of catalyst, come to verify this alkaline fuel cell superiority and practicability by this. The result of study shows: Apply the catalyst on many hole materials, its bending and material is processed degree more than superior to the tradition with the fuel cell of the carbon cloth (paper), but Renee nickel hole easy to brake of bending. We can know via the single fuel cell relevant experiment, the single fuel cell power can increase the electric current amount via the way to pile pile, make the fuel cell catalyst increase three-dimensional space by the ordinary coating, to really pile pile and become intact three-dimensional space, if can study several, such as follow-up porous material, durability,etc. There will be very great benefitting to the development of the technology of the fuel cell.

Keywords : Catalyst, Alkaline Fuel Cell, Platinum, Electroplate

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