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Electrocatalytic Activity of Ti/TiO₂ Electrodes in H₂SO₄ Solution

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摘要 Ti/TiO₂ electrodes were prepared with the polymeric precursor method (PPM). The structure and morphology of Ti/TiO₂ electrodes were examined with XRD and ESEM. The voltammetric charge (q^*) of Ti/TiO₂ electrodes as cathode in 0.5 mol/L H₂SO₄ solution was investigated with cyclic voltammetry. It was found that the electrocatalytic activity of the Ti/TiO₂ electrodes was affected by the structure and morphology of the Ti/TiO₂ electrodes, in other words, was affected by the calcination conditions of preparing the electrodes. The value of q^* in was considerably larger than that of q^* out, which means that the 'inner' active surface area was much larger than the 'outer' active surface area, and 'inner' active surface played a main role in the electrocatalytic activity of the Ti/TiO₂ electrodes.

关键词 [voltammetric charge](#) [active surface](#) [TiO₂ electrode](#) [electrochemistry](#)

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