

Production of Hydrogen by Direct Thermal Cracking of Natural Gas

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Thermal decomposition of natural gas is technology converting methane into hydrogen and carbon at high temperature. The most advantage of thermal decomposition can make hydrogen and carbon without emitting carbon dioxide. We researched to generate hydrogen and carbon through thermal decomposition of methane, and could see a problem which is carbon deposition on the surface of reactor, finally blocking the reactor in this experiment. Therefore, we used reaction tube from single tube to double tube and various feedstocks for solving the problem. We used SEM to search carbon particle size and GC to recognize gas products.