

## PtCl<sub>6</sub><sup>2-</sup> loading activated carbon fiber and activated henequen fiber

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Platinum is known as one of excellent catalysts for the oxidation of methanol in the direct methanol fuel cells (DMFCs). Activated carbon fiber has lots of micropores and known more effective than activated carbon for Pt loading. Most platinum loading on activated carbon was progressed by impregnation and complex reduction steps. However, the average platinum particle size was larger than 2 nm, and the distribution was not uniform. Activated henequen fiber(AHF) was prepared from Mexican henequen for the purpose of reducing the preparation cost of ACF. Pt loading was carried out by impregnation of PtCl<sub>6</sub><sup>2-</sup> and sintering the PtCl<sub>6</sub><sup>2-</sup> impregnated AHF without using the reduction steps. BET characteristics of AHFs were very similar to those of conventional ACFs. The average of Pt nanoparticles was 2~5 nm and was uniformly distributed on the surface of AHFs.