Effect of pore structure of three-dimensionally mesoporous carbon support on catalytic performance in aqueous phase reforming of xylitol

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In this study, the effect of the pore structure of three-dimensionally mesoporous carbon supports on the catalytic performance in an aqueous phase reforming (APR) of xylitol was investigated over carbon supported Pt catalysts. The catalytic performance was evaluated in terms of carbon conversion, and hydrogen yield, selectivity and production rate. The carbon support with larger pore size was favorable for the APR performance of xylitol. Moreover, the carbon support with bimodal pore system showed the higher catalytic performance than one with unimodal pores.