



Metal impregnated catalysts for bioethanol conversion tested by n-hexane cracking

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Abstract The catalytic activity of catalysts for bioethanol conversion to hydrocarbons was tested by cracking n-hexane in a glass microreactor in the temperature range of 623 to 823K. The microreactor is a tubular one with axial thermocouple measurements in flow, initially for some experiments in nitrogen and for others by hydrogen. Reaction products were collected and analyzed as gaseous samples by Gas Chromatography. The samples of Me-ZSM-5 zeolites (Me=Fe, La, Ce) were prepared by impregnation method. All the prepared samples had a metal content of approximate to 3 % wt. ZSM-5 zeolite was synthesized by using a structure direct agent, namely tetrapropylammonium hydroxide (TPAOH) and hydrothermal crystallisation method under alkaline conditions according to reported procedures.

Keywords: ZSM-5, metal impregnated, n-hexane, cracking
