Preparation of heterogeneous catalyst for ethylene hydrofromaylation: Part 2. Rh catalysts supported on nanoporous carbon for the ethylene hydroformylation

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Nanoporous carbon (NC) materials have attracted great attention due to their potential applications including adsorption, electrocatalysis, catalysis and others. NC materials have advantageous characteristics, such as high surface area, high stability in extreme conditions and unique surface properties. Because of their superior physico-chemial properties, NC was successfully applied as a catalyst support. In this study, we prepared nanoporous carbon (NC) support via templating method for use as a catalyst support in ethylene hydroformylation. The active metal Rh was supported by the impregnation method. NC supported-Rh catalysts prepared have characterized by N2 adsorption, ransmission electron microscopy (TEM), X-ray diffraction (XRD), and temperature programmed analysis. The experimental results showed NC supported Rh catalyst have remarkable activity.