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Conversion of isopropyl alcohol over alumina-supported Pt and Pt-Sn catalysts

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PURPOSE OF THE ABSTRACT

Bimetallic catalysts can lead to improved catalytic properties in terms of enhanced activity or stability as compared to the monometallic materials. The supported Pt-Sn bimetallic catalysts have been the subject of several studies due to their importance in processes linked to the petroleum industry [1], HC-SCR processes due to their resistance to sulfur-containing products (Diesel Engines) [2], in dehydrogenation reactions [3], combustion of methane and oxidation of the soot Particles [4].

We report here a study of isopropyl alcohol decomposition on alumina-supported Pt and Pt-Sn catalysts aiming at determining Acid/base properties and the modification of the Pt brought about the presence of Sn. The Pt and Pt-Sn/alumina was prepared according to a in-house method [5].

FIGURES

FIGURE 1

FIGURE 2

KEYWORDS

isopropyl Conversion | Pt/Al₂O₃ ,Pt-Sn/Al₂O₃ | Bimetallic catalysts | Acid?Base properties

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