

Benzene reduction in reformat: a review of current catalytic studies. Aitani, A. M.; Hamid, S. H.. Petroleum and Gas Technology Division, King Fahd University of Petroleum and Minerals, Dhahram, Saudi Arabia. Arabian Journal for Science and Engineering (1996), 21(2), 181-192. Publisher: King Fahd University of Petroleum and Minerals, CODEN: AJSEDY ISSN: 0377-9211. Journal; General Review written in English. CAN 125:200130 AN 1996:542352 CAPLUS (Copyright (C) 2008 ACS on SciFinder (R))

Abstract

A review with 23 refs. The purpose of this paper is to review recent studies on catalytic conversion of benzene in reformat by hydrogenation, hydroisomerization, and alkylation. Refineries throughout the world are facing challenges in meeting new fuel specification; one of them is benzene content in motor gasoline. Almost all the proposed benzene redn. processes are within the naphtha processing area, since the reformat is the major source of benzene (typically in the range 2.5-8.0 vol.%), as well as the major component in the gasoline pool. The catalytic conversion approach discussed in this paper is the most flexible one since it allows accurate monitoring of the benzene without altering the operation of the reformer unit. The present paper also briefly compares the costs of various benzene redns. options and their impact on refinery economics.