

Contents lists available at ScienceDirect

## Catalysis Communications

journal homepage: www.elsevier.com/locate/catcom



## Acetoxylation of camphene catalysed by beta zeolite

J.E. Castanheiro a,\*, I.M. Fonseca b, A.M. Ramos b, J. Vital b

- <sup>a</sup> Centro de Química de Évora, Departamento de Química, Universidade de Évora, 7000-671 Évora, Portugal <sup>b</sup> REQUIMTE/CQFB, Faculdade de Gências e Tecnologia, Universidade Nova de Lisboa, 2829-516 Caparica, Portugal
- ARTICLE INFO

Article history: Received 15 January 2008 Received in revised form 7 May 2008 Accepted 8 May 2008 Available online 15 May 2008

Keywords: Camphene Isobornyl acetate Acetoxylation Beta zeolite

## ABSTRACT

Beta zeolite with Si/Al ratio equal to 40 was synthesised and used as solid catalyst in acetoxylation of camphene. The main product of camphene acetoxylation was isobomyl acetate being also formed bornyl acetate and fenchyl acetate. Effects of various parameters, such as reactant molar ratio, reaction temperature, catalysts loading and reusability of the catalyst were studied to optimise the reaction conditions. The catalytic stability of beta zeolite in the acetoxylation of camphene was studied by performing consecutive batch runs with the same catalyst sample. After the third run, it was observed similar values of the catalytic activity.

© 2008 Elsevier B.V. All rights reserved.