

Turkish Journal of Chemistry

Turkish Journal

of

Chemistry

Examination of Gold as a Metal Promoter of Sulphated Zirconia in n-Heptane Isomerisation at Low Temperature

Ümit Bilge DEMİRÇİ, François GARIN

Laboratory of Materials, Surfaces and Processes for Catalysis, UMR 7515 of CNRS, ECPM,
Louis Pasteur University, 25 rue Becquerel, 67087 Strasbourg Cedex 2, FRANCE
e-mail: umit.demirci@ecpm.u-strasbg.fr - umitbilgedemirci@yahoo.tr

 [Keywords](#)
 [Authors](#)



chem@tubitak.gov.tr

[Scientific Journals Home](#)
[Page](#)

Abstract: Isomerisation of nC₇ over a sulphated zirconia (SZ)-based bifunctional catalyst was studied at 150 °C. Au, Ir, Pd and Pt were used as promoters of SZ. The first objective was the production of C₇ isomers with high octane numbers. PtSZ is the most suitable catalyst despite low conversions and a high proportion of methylhexanes instead of dimethylpentanes. The second objective was to assess Au as a promoter of SZ. Au shows slight hydrogenation abilities, displaying behaviour similar to that of Pd, but is inactive towards alkane activation. These promising but inadequate results suggested that Au could be used as the metallic function of bifunctional catalysts if the support were judiciously chosen and the preparation method optimised.

Turk. J. Chem., **31**, (2007), 105-111.

Full text: [pdf](#)

Other articles published in the same issue: [Turk. J. Chem., vol.31, iss.1.](#)