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Production of Camphene by I somerization Reaction on Sulfated ZrO₂

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摘要 The kinetics of camphene production in liquid phase from -pinene wasexperimentally determined in an isothermal batch reactor. To this end, asulfated ZrO2 catalyst was used and the reaction studied in the temperaturerange of 370---403 K. By analyzing the experimental data, second reactionorder for -pinene was found. A kinetic model is presented which includesterm for the catalyst load used. The specific rate constant at 393 K was2.19 10-3 mol-1-1, the activation energy being 93 kJ-1.Both values are within the range of literature results.

关键词 <u>camphene</u> <u>kinetics</u> <u>-pinene</u> <u>zirconium oxide</u> <u>superacid catalystminipage</u> 分类号

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Abstract The kinetics of camphene production in liquid phase from -pinene wasexperimentally determined in an isothermal batch reactor. To this end, asulfated ZrO2 catalyst was used and the reaction studied in the temperaturerange of 370---403 K. By analyzing the experimental data, second reactionorder for -pinene was found. A kinetic model is presented which includesterm for the catalyst load used. The specific rate constant at 393 K was2.19 10-3 mol-1-1,the activation energy being 93 kJ-1.Both values are within the range of literature results.

Key words camphene; kinetics; -pinene; zirconium oxide; superacid catalystminipage

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