SBA-15 with sulfonic acid groups as a Green Catalyst for the acetoxylation of α-pinene

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ABSTRACT

The acetoxylation of α-pinene was carried out over SBA-15 with sulfonic acid groups. The products of acetoxylation of α-pinene are acetates (α-terpinyl acetate, bornyl acetate and β-pinyl acetate) and hydrocarbons (camphene, 1,8-cineole, limonene, γ-terpinene, terpinolene and α-terpinene).

Catalysts with different amounts of sulfonic acid groups were prepared. It was observed that the activity increases with increase of the surface area and porous volume. Catalyst stability of the sample that showed the highest activity (C1) was evaluated by performing consecutive batch runs with the same catalyst sample. After the fifth batch, the catalyst exhibited a good initial activity.

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