

Catalyst system for producing ketones from epoxides

Abstract

5 A catalyst composition is provided which comprises at least one precious metal and at least one mixed oxide comprising zirconium dioxide and silicon dioxide. The precious metal is supported and the support does not consist of the mixed oxide. The mass ratio of zirconium dioxide to silicon dioxide in the mixed oxide is 86: 14 to 99.9: 0.1.

10 Furthermore, a process for producing a catalyst composition is provided, wherein the catalyst composition comprises at least one precious metal and at least one mixed oxide comprising zirconium dioxide and silicon dioxide. The mass ratio of zirconium dioxide to silicon dioxide in the mixed oxide is 86:14 to

15 99.9:0.1. The mixed oxide has a specific surface area, measured according to BET methods, of 5 – 155 m²/g. The precious metal is supported on the mixed oxide and the mixed oxide has a monomodal pore radius distribution.

For the preparation, a mouldable mass is prepared which comprises a

20 zirconium compound, silicon dioxide as solid with a particle size of at least 100nm and water. In the next step, the mouldable mass is calcined at a temperature of from 300°C to 500°C.

The catalyst systems can be used for producing a ketone from a compound

25 containing at least one epoxide group.

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Fig. 1