

## Epoxidation of Olefins over Nanostacked TS-1

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Titanium silicalite zeolite having a MFI structure (TS-1) has shown excellent catalytic properties in a wide range of selective oxidation reactions. The oxidant used in oxidation reactions with TS-1 is often aqueous hydrogen peroxide, which is a green oxidant because its final product is water. Therefore, TS-1 is widely used as catalyst in selective oxidation reactions under mild conditions, such as the epoxidation of olefins to epoxides. We got the nanostacked TS-1 by using microwave heating. All the obtained samples showed well stacked morphologies. The catalytic activities of nanostacked TS-1 were investigated in the the epoxidation reactions of various olefins with  $H_2O_2$  and TBHP(tert butyl hydrogen peroxide).