Supporting Information

A procedure for the preparation of Ti-Beta zeolites for catalytic epoxidation with hydrogen peroxide

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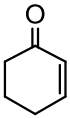
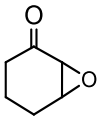
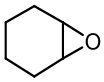
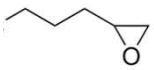
Table S1 Catalytic activity of TS-1 and Ti-Beta in the epoxidation of different substrates. [a]

Substrate	Product	Catalyst	Temperature	Selectivity [b]	TOF [b]
		TS-1	343 K	91.2 %	19.7 h^{-1}
		Ti-Beta		97.8 %	88.2 h^{-1}
		TS-1	343 K	84.7%	14.7 h^{-1}
		Ti-Beta		89.2 %	73.8 h^{-1}
		TS-1	333 K	96.6 %	75.4 h^{-1}
		Ti-Beta		99.9 %	38.9 h^{-1}

[a] Reaction conditions: 5 mmol substrate, 10 mL MeCN, 7.5 mmol H_2O_2, 0.1 g catalyst,

[b] at time-on-stream of 0.5 h.

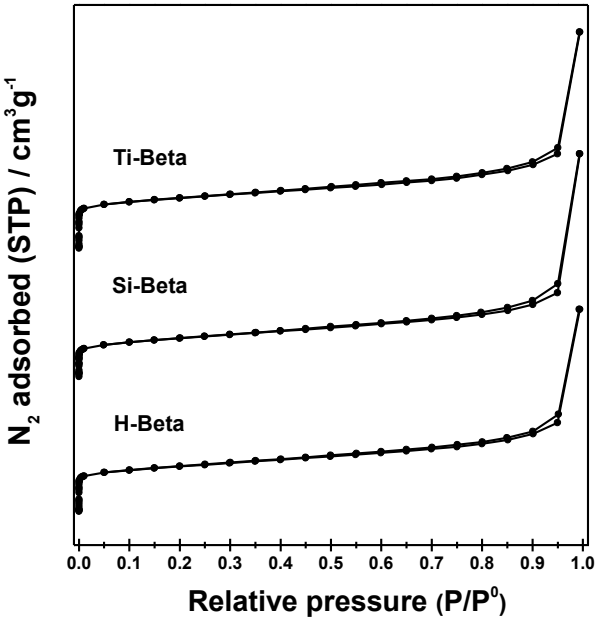


Figure S1 N_2 adsorption and desorption isotherms of H-Beta, Si-Beta and Ti-Beta (5.0 wt.%).

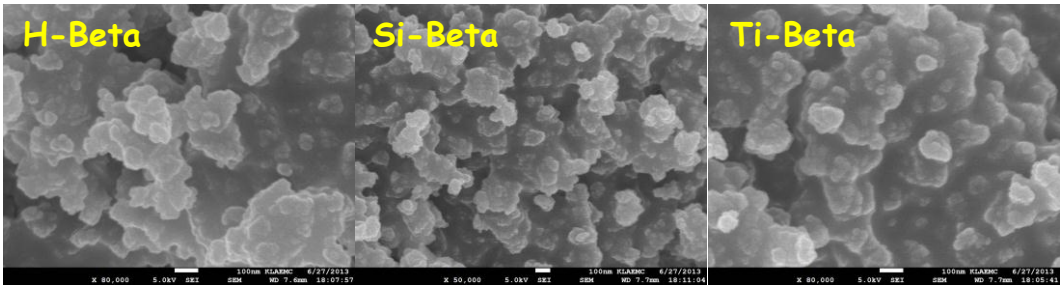


Figure S2 SEM micrographs of of H-Beta, Si-Beta and Ti-Beta (5.0 wt.%).

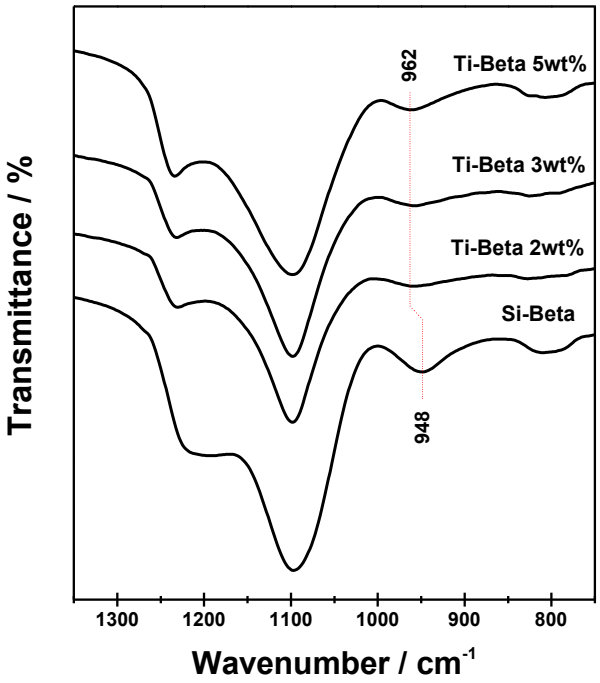


Figure S3 FTIR spectra of Si-Beta and Ti-Beta with different Ti loadings.

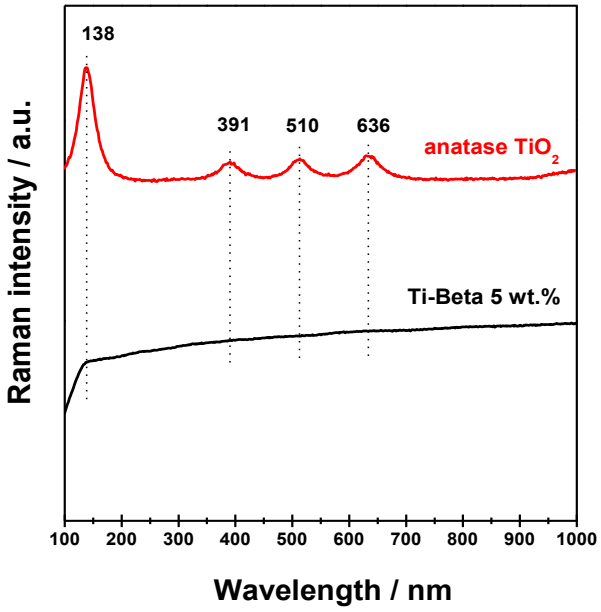


Figure S4 Raman spectra of Ti-Beta (5 wt.%) and bulk anatase TiO_2.

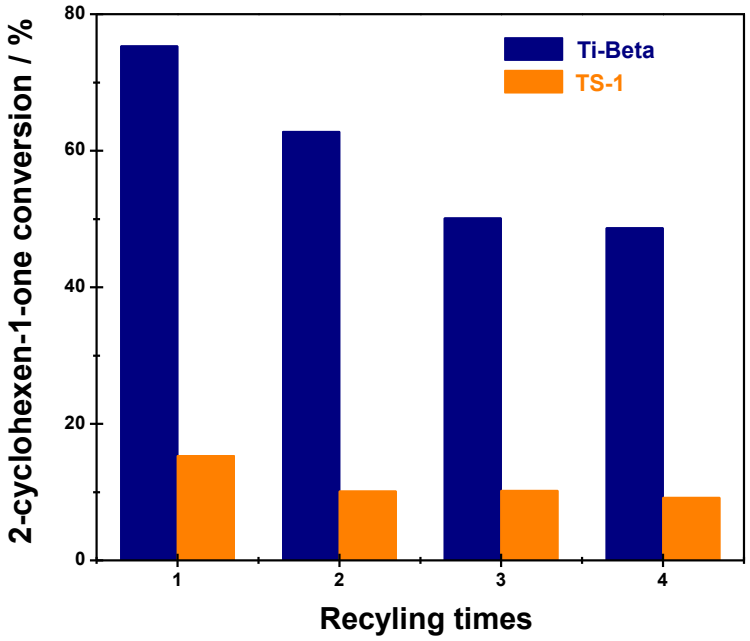
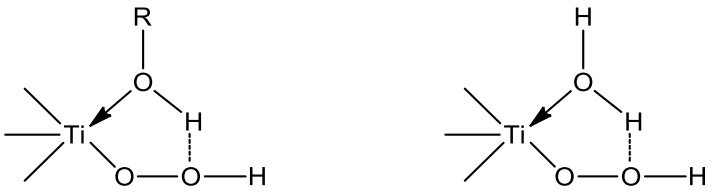


Figure S5 Recycling ability of Ti-Beta and TS-1 in the epoxidation of 2-cyclohenxene-1-one with hydrogen peroxide.



Species I **Species II**

Figure S6 Structural scheme of proposed intermediate Ti species.