

Supplementary Material: Mesoporous Beta Zeolite Catalysts for Benzylation of Naphthalene: Effect of Pore Structure and Acidity

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Figures:

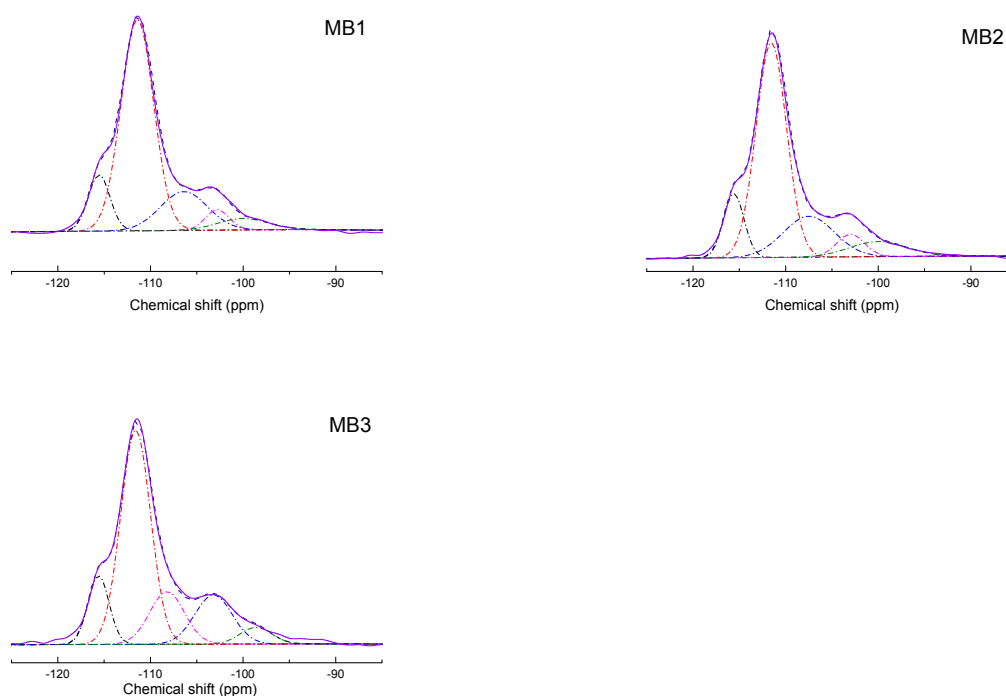


Figure S1. ^{29}Si MAS NMR spectra of mesoporous Beta zeolite MB1-3. Solid line is the original data; Dash dot data is the fitted data; Dash line is the cumulative fitted data.

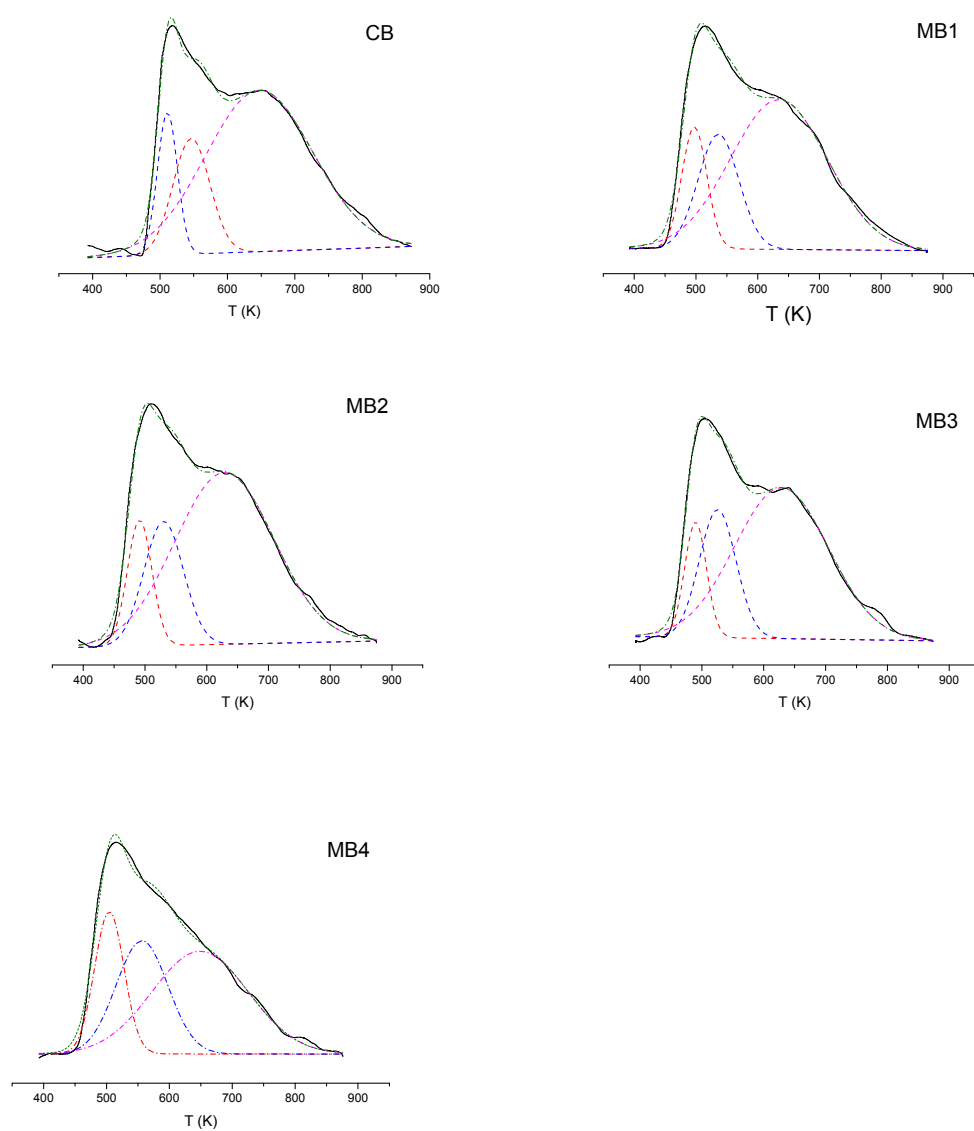


Figure S2. NH_3 -TPD for microporous Beta zeolite CB and mesoporous Beta zeolites MB1-4. Solid line is the original data; Dash dot line is the fitted data by Gaussian functions; Dash line is the cumulative fitted data.

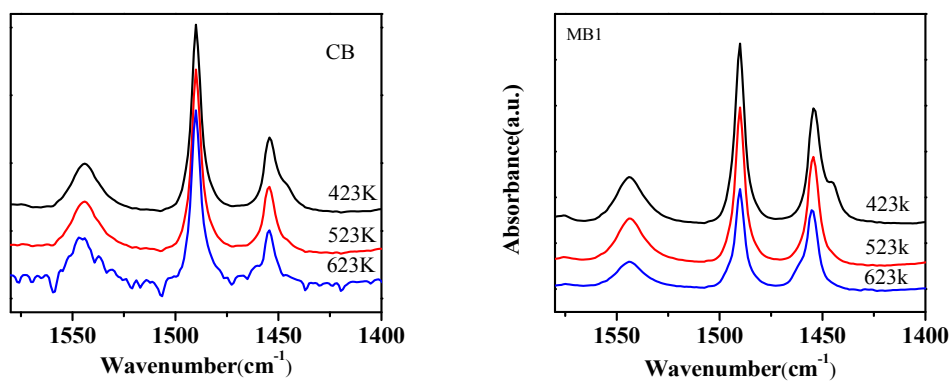


Figure 3. *Cont.*

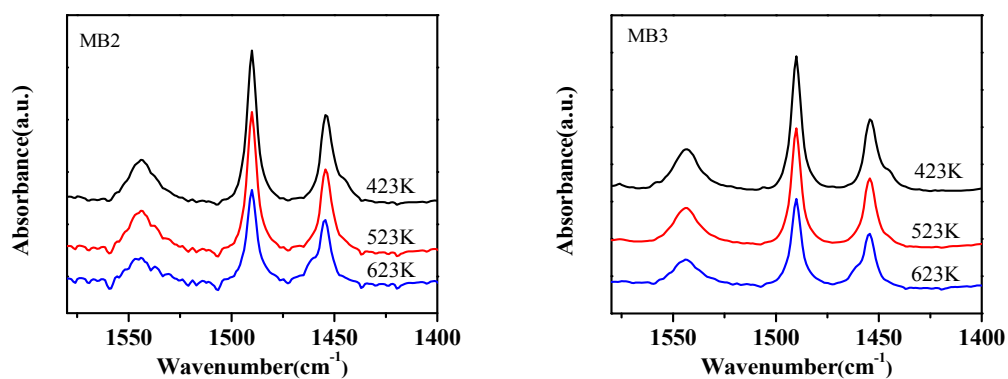


Figure S3. FTIR spectra of microporous Beta zeolite CB and mesoporous Beta zeolites MB1-3 after desorption of pyridine at three different temperatures.

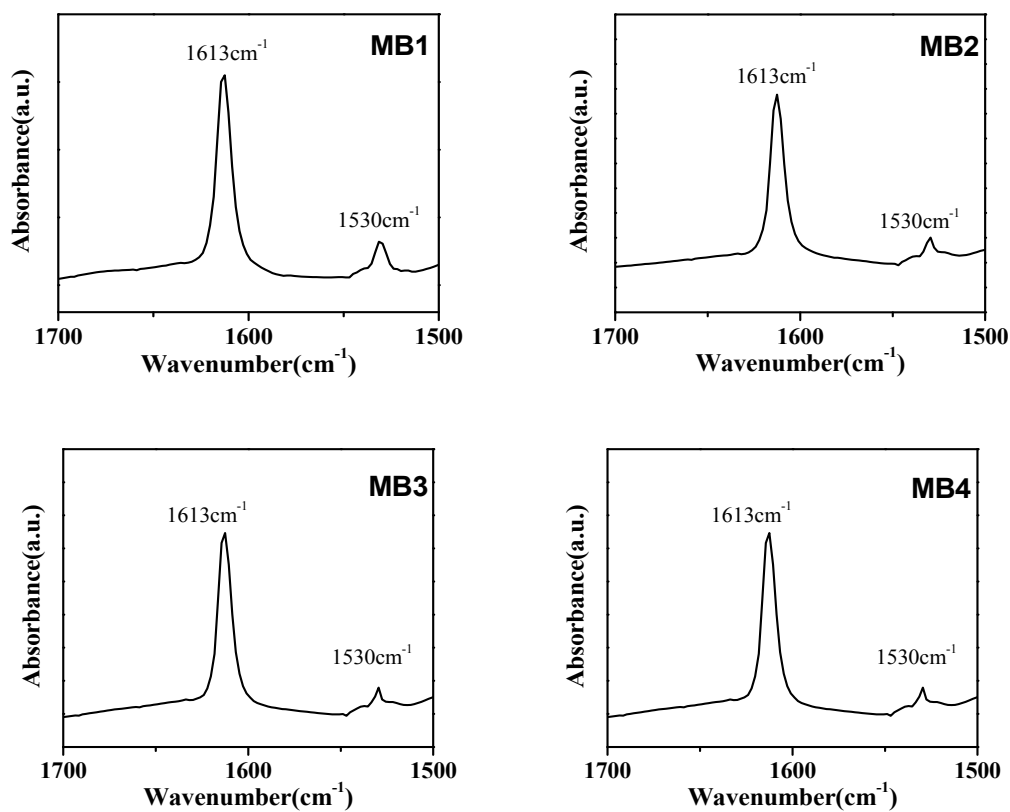


Figure S4. FTIR spectra of mesoporous Beta zeolites MB1-4 after desorption of DTBPy at 423K.

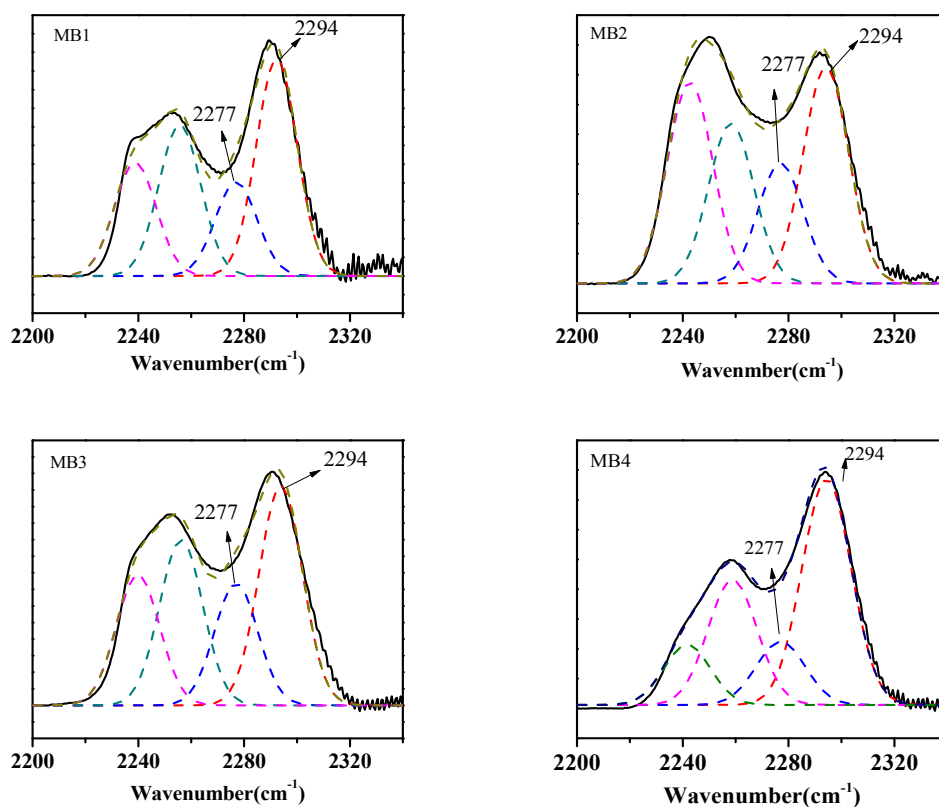


Figure S5. FTIR spectra of mesoporous Beta zeolites MB1-4 after pivalonitrile(Pn) desorption at 303K.

Table:

Table S1. Conversion of BA and Selectivity of products in the catalytic benzylation of naphthalene on microporous Beta zeolite CB and mesoporous Beta zeolites MB1-4.

Sample	Conversion of BA (%)	Selectivity of Products (%)		α -BN/ β -BN
		α -BN	β -BN	
CB	25.89	81.93	18.07	4.53
MB1	86.34	88.69	11.31	7.84
MB2	94.49	80.54	19.46	4.14
MB3	95.89	82.10	17.90	4.59
MB4	100	82.19	17.81	4.61

