

Supplementary Materials: The role of non-framework, Lewis acidic Al species of alkali-treated HZSM-5 in methanol aromatization

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Table S1. Table S1. Detailed product distribution of tested catalysts at 400 °C with different contact times.

catalyst	HZ		HZ-D		HZ-DA	
W/F(kg _{cat} *min/mol)	0.24	0.49	0.24	0.49	0.17	0.49
Conversion (%)	99	100	99	100	99	100
C yield (%)						
C ₁	1	0	1	0	0	0
C ₂	5	6	3	3	4	4
C ₃	21	24	13	12	14	14
C ₄	6	7	2	3	6	4
C ₄	17	20	19	16	21	19
C ₅₋₇	9	11	10	10	9	10
benzene	1	1	0	1	1	1
toluene	1	1	1	1	2	2
<i>p</i> - + <i>m</i> -xylenes	7	6	6	7	8	9
<i>o</i> -xylene	3	2	2	3	3	3
C ₉ aromatics	25	18	31	30	27	26
durene	4	4	12	14	5	8
Σ aromatics	41	32	52	56	46	49

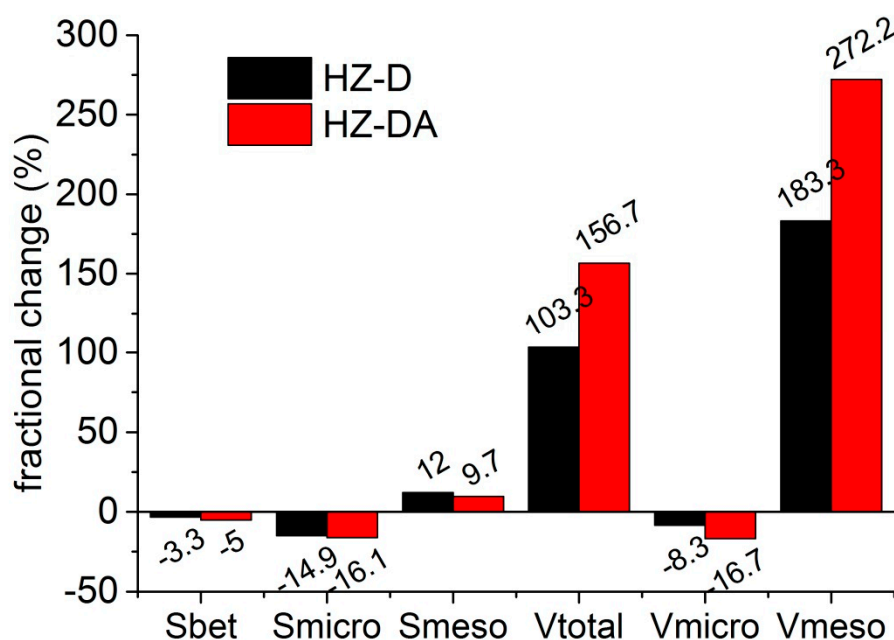


Figure S1. Fractional changes of porosity of HZ-D and HZ-DA, using HZ as the reference.

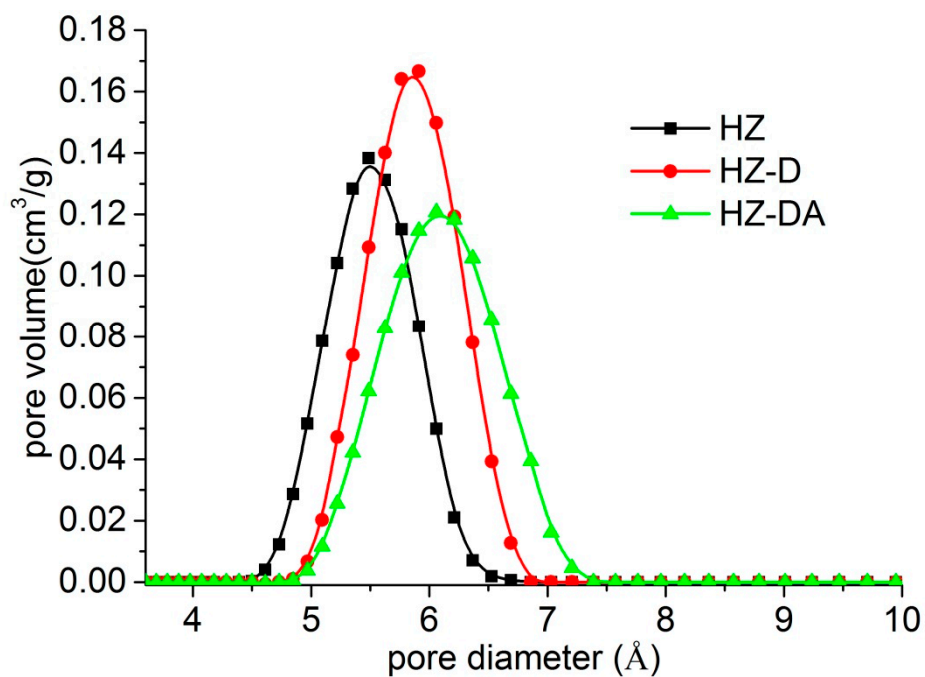


Figure S2. Micropore PSD estimated by NLDFT of tested catalysts.