

Supporting Information for

Effects of Acidity on the Conversion of the Model Bio-oil Ketone Cyclopentanone on H-Y Zeolites

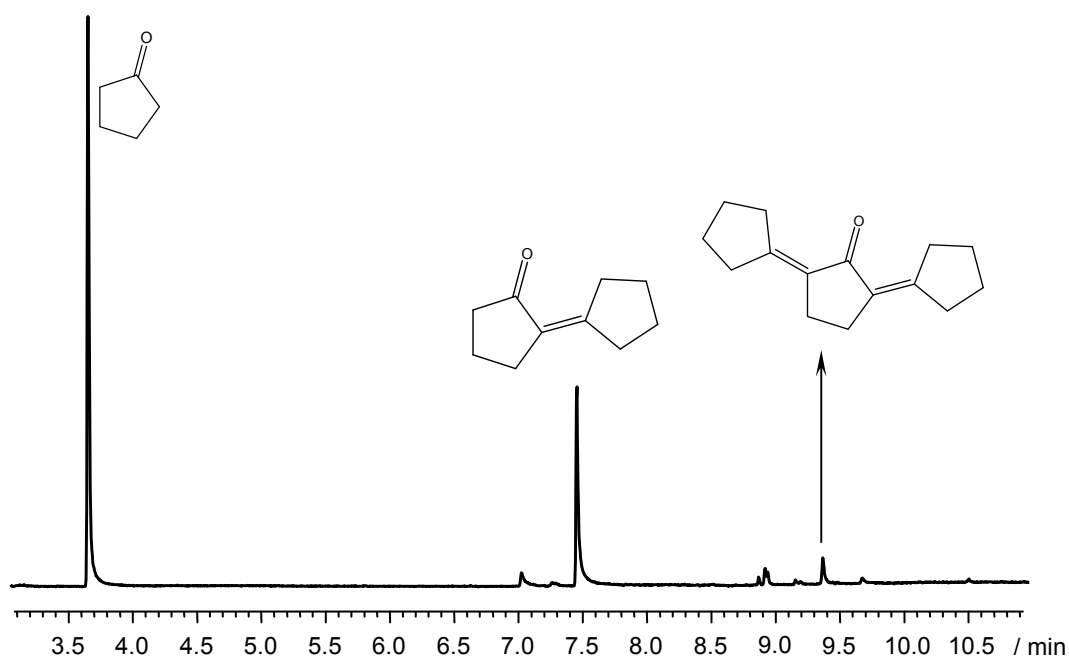
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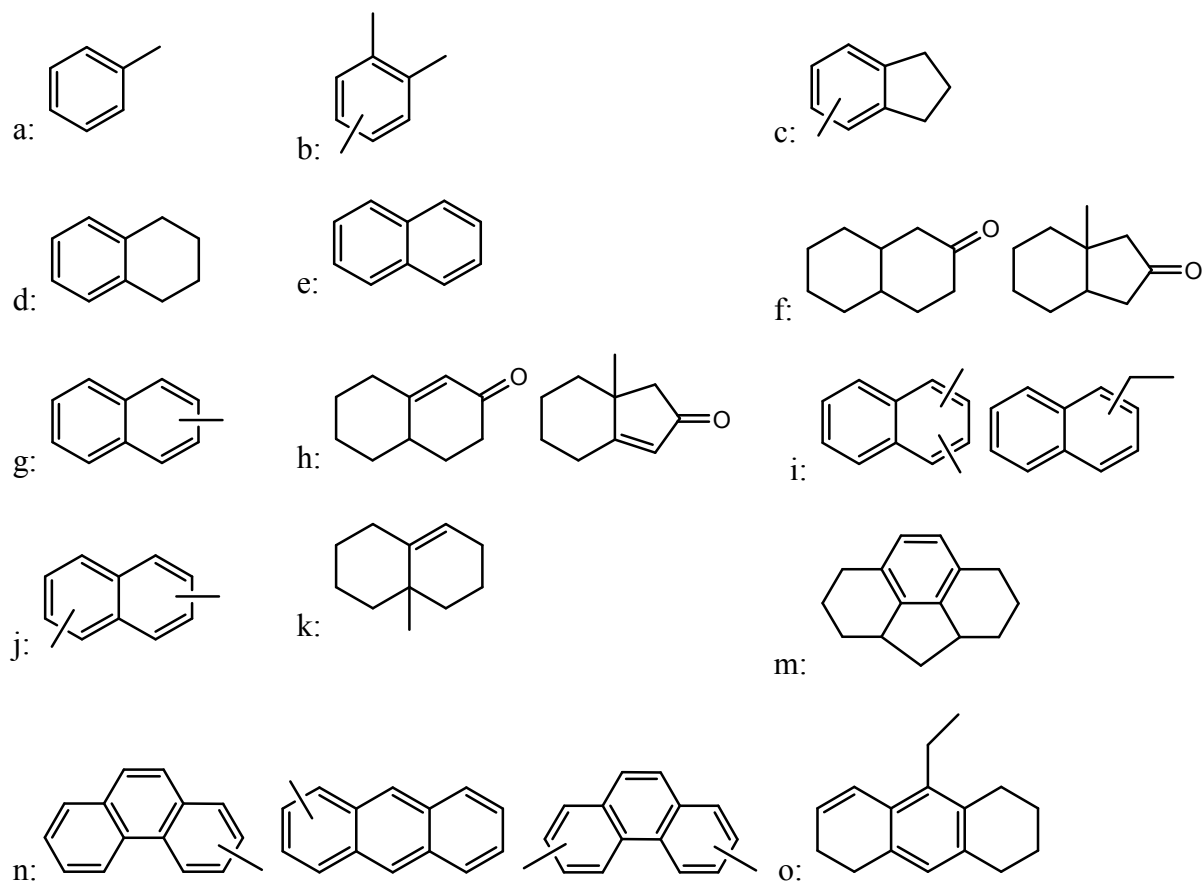
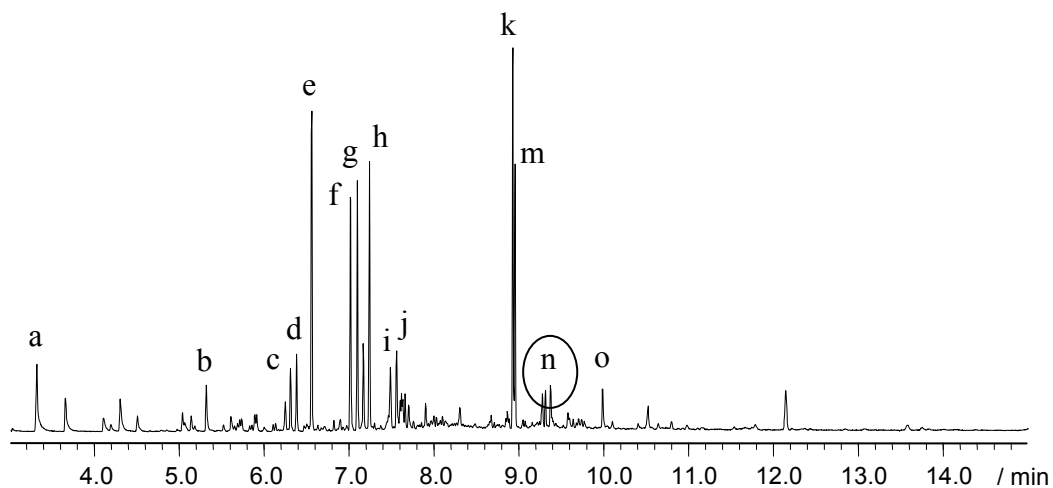
Sample preparation for GC/MS analysis

After ^{13}C MAS NMR investigation of cyclopentanone reactions on zeolites, 50 mg of the zeolite samples were transferred into 5 ml of acetone solvent. The mixture was stirred for 2-6 h to allow organics in the zeolite sample to be extracted by the acetone. Subsequently, the solution was filtered to remove the zeolites and the solution was analyzed by a Shimadzu GCMS-QP2010S.

MS spectrum of the extracts from cyclopentanone reaction on H-Y/30 at 150 °C for 5 minutes



MS spectrum of the extracts of cyclopentanone reaction on H-Y/5.2 at 400 °C for 5 minutes



¹³C chemical shifts of compounds in cyclopentanone reactions over Y zeolites

<i>Compound number</i>	<i>¹³C chemical shifts / ppm</i>
1	219, 38, 24
2	225, 160, 31, 26
3	210, 157, 36, 24
4	137, 31, 26
5	219, 38, 31, 24
6	215, 38, 35, 26
7	215, 35, 31, 26, 21
8	215, 129, 40
9	219, 140, 120, 40, 31, 24
10	138, 33, 26
11	40, 38, 30, 25, 21
12	140, 129, 38, 31, 26, 21
13	40, 32, 26
14	138, 129, 125, 24
15	134, 129, 125
16	140, 133, 125, 44, 40, 31, 26
17	133, 129, 125, 22

^1H MAS NMR spectrum of dehydrated H-Y/5.2 with the spectral range between 60 to -60 ppm.

