

Supporting information

Table S1. The basic parameters of smoking experiment for cigarettes added by zeolites.

Sample	Weight (mg/cig)	Pressure drop (mmWC)	CO (mg/cig)	Puffs (cig ⁻¹)	NNN (ng/cig)	NNK (ng/cig)	NAT (ng/cig)	NAB (ng/cig)
CY0.1	964	129.3	14.77	8.1	53.98	14.31	52.89	2.30
CY0.2	967	136.5	14.61	8.1	47.24	9.44	49.59	2.26
CY0.3	971	132.0	15.37	7.7	48.94	10.17	48.87	2.12
CY0.4	972	138.9	15.20	7.9	51.06	12.81	47.47	2.13
NaY	958	134.6	15.12	7.8	49.05	8.36	43.41	1.59
control	925	129.1	14.13	7.2	68.23	43.41	55.61	2.17

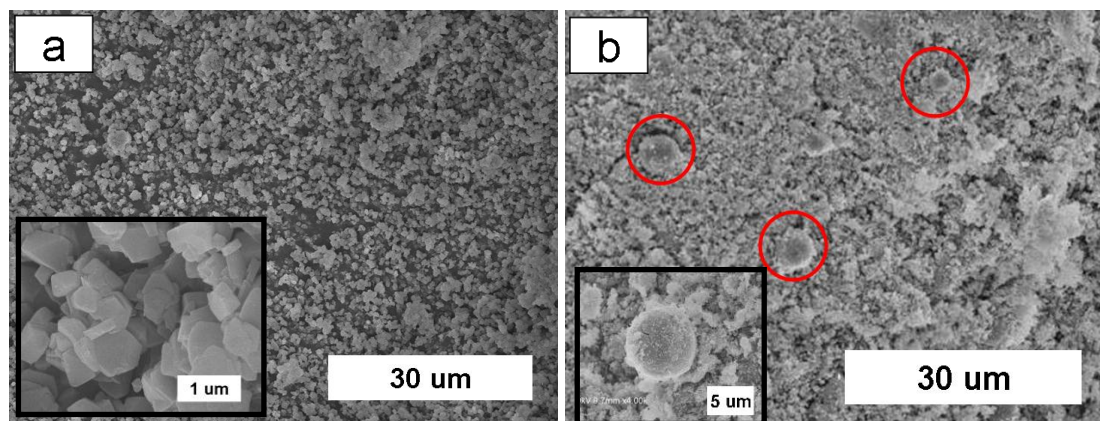


Figure S1. SEM images of (a) normal NaY zeolite and (b) the clustered zeolite microsphere synthesized with TMAOH/Si ratio of 0.025.

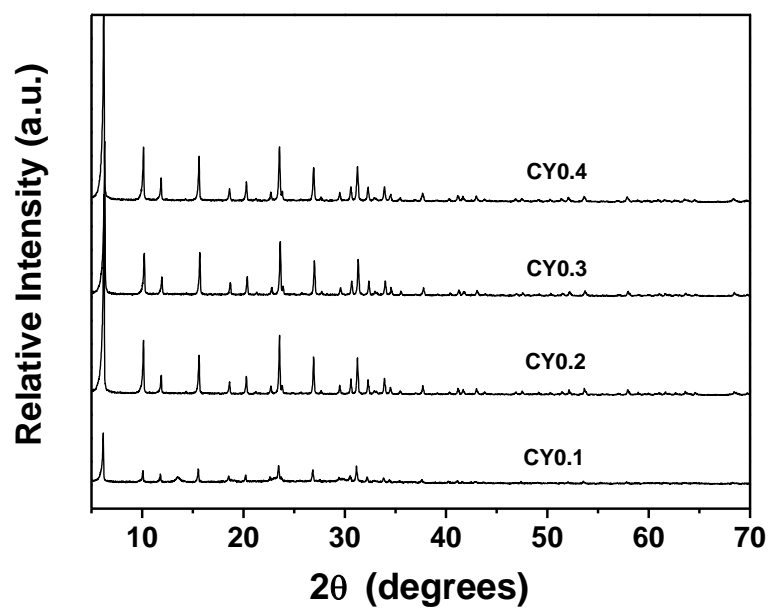


Figure S2. The wide-angle XRD patterns of the calcined CY series samples.

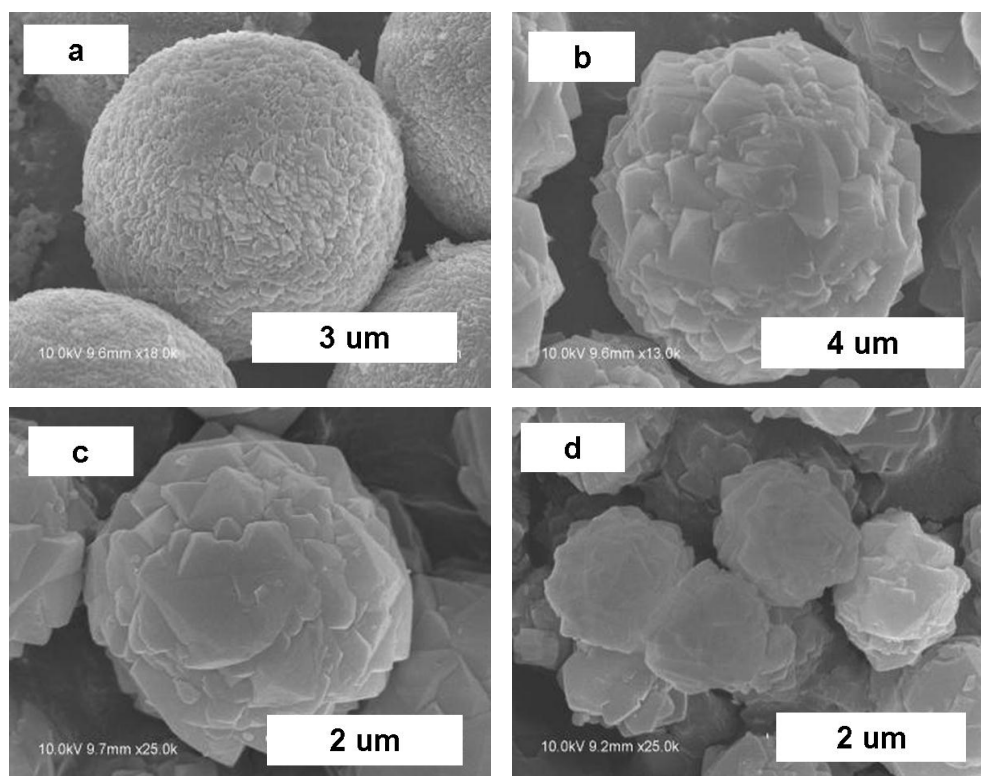


Figure S3. SEM images of the calcined CY series sample: (a) CY0.1, (b) CY0.2, (c) CY0.3 and (d) CY0.4.

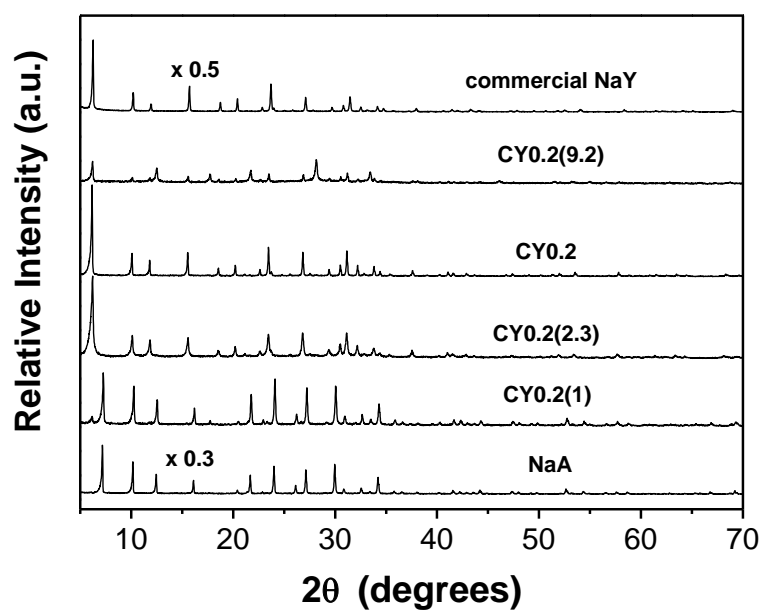


Figure S4. Wide-angle XRD patterns of the CY0.2 sample with different Si/Al ratio in the synthetic gel.

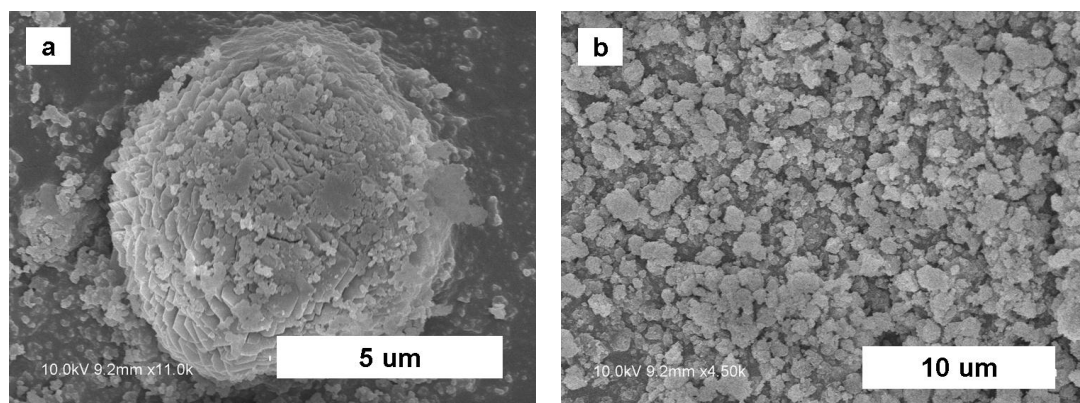


Figure S5. SEM images of the CY0.2 sample with Si/Al ratio of (a) 2.3 and (b) 9.2 in synthetic gel.

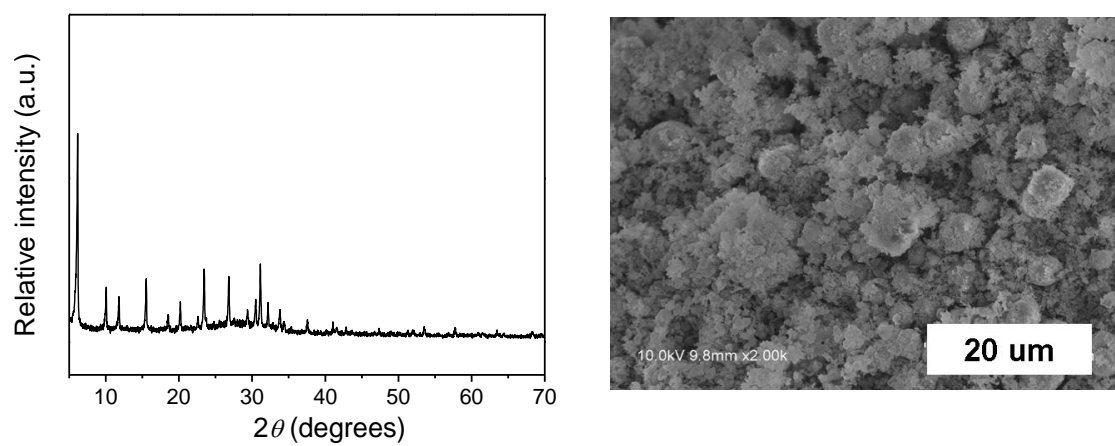


Figure S6. The XRD pattern and SEM image of sample added with TMAOH before mixing solution A and B.