Supporting Information

Hierarchical Silicoaluminophosphates by Post-Synthetic Modification: Influence of Topology, Composition, and Silicon Distribution

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Table S1. Conditions for MAS NMR experiments.

nucleus	resonance freq. (MHz)	spinning freq. (kHz)	pulse duration (μs)	flip angle (degrees)	delay time (s)	no. scans (-)	reference (-)
^{27}Al	104.3	5	1	30	1	1024	$Al(H_2O)_6^{3+}$
^{29}Si	79.5	10	1.5	30	5	12288	TMS[a]
^{31}P	162.0	5	3.6	90	2	128	H_3PO_4, 85 wt.%

[a] Tetramethylsilane.

Table S2. Yields and porous properties of parent and treated AlPO-5, SAPO-5, SAPO-34, and silicalite-1.

sample	yield[a] (%)	V_{micro}[b] ($cm^3\ g^{-1}$)	V_{meso}[c] ($cm^3\ g^{-1}$)	S_{meso}[b] ($m^2\ g^{-1}$)
AP5-P	-	0.16	0.02	19
AP5-B1	67	0	0	0
AP5-B4	53	0.12	0.08	50
SP5-P	-	0.09	0.30	92
SP5-B1	66	0	0.10	20
SP5-B4	66	0.10	0.21	80
SP34-P	-	0.30	0	1
SP34-B1	73	0.13	0.02	15
SP34-B2	74	0.11	0.02	14
SP34-B3	79	0	0	2
SP34-B4	85	0.29	0.01	1
SP34-B5	77	0.31	0	1
SP34-A1	81	0	0.01	1
SP34-A2	78	0	0	3
SP34-A3	84	0.25	0.01	1
Silicalite-1-B4	92	0.17	0.07	41

[a] Gram of solid after treatment per gram of starting material. [b] *t*-plot method. [c] $V_{meso} = V_{pore} - V_{micro}$.

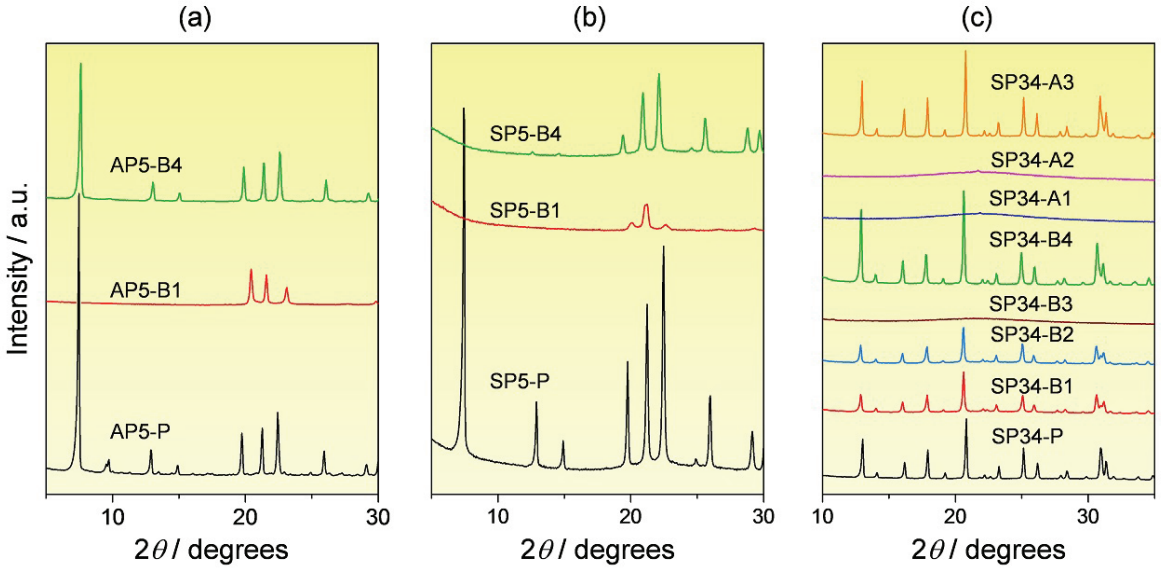


Figure S1. X-ray diffraction patterns of AlPO-5 (a), SAPO-5 (b), and SAPO-34 (c) zeotypes.

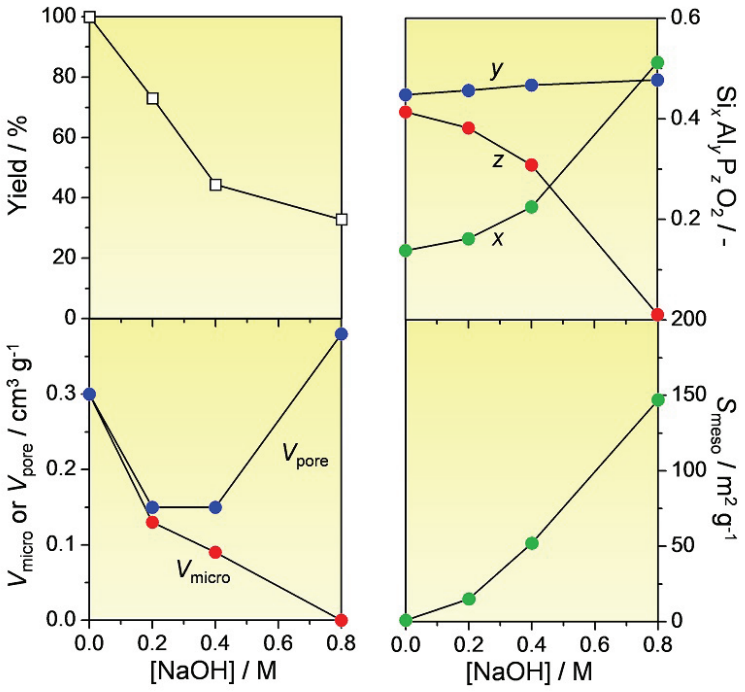


Figure S2. Yield, chemical composition, and porous properties of SAPO-34 zeotypes. The parent material is represented at 0 M NaOH.

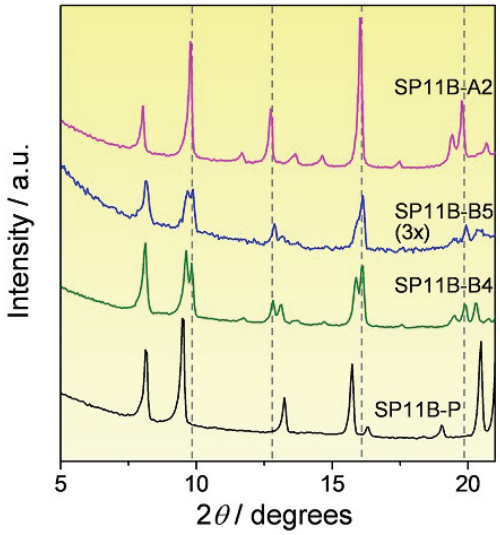


Figure S3. X-ray diffraction patterns of SAPO-11 zeotypes.

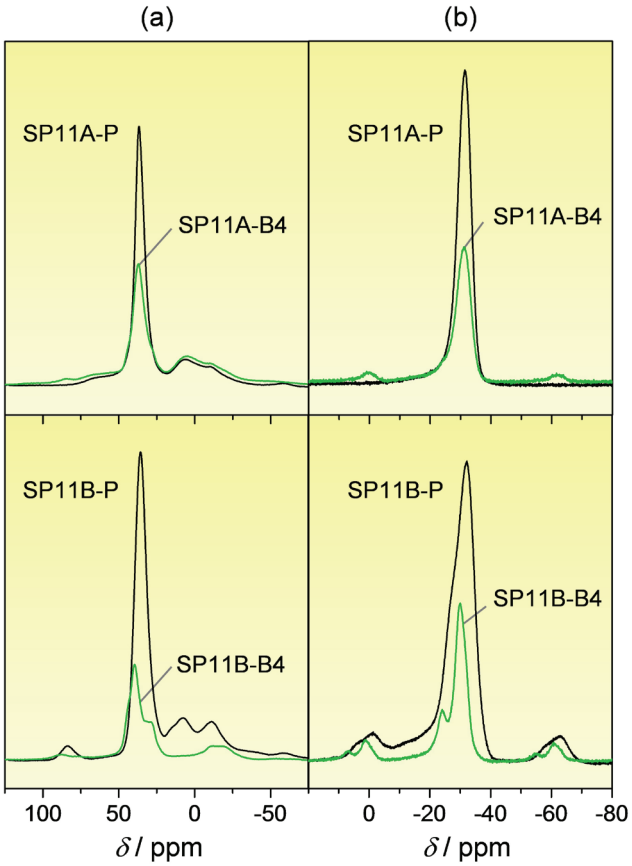


Figure S4. ^{27}Al (a) and ^{31}P (b) MAS NMR of SAPO-11 zeotypes.

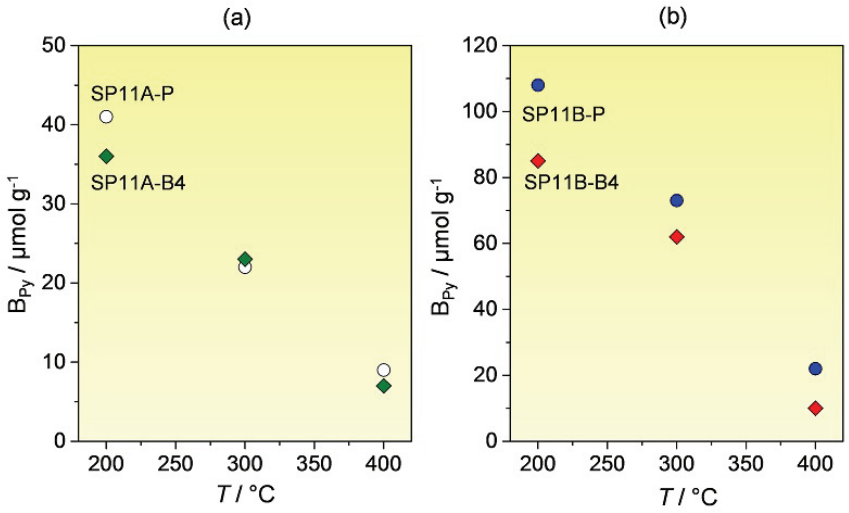


Figure S5. Concentration of Brønsted acid sites of SP11A (a) and SP11B (b) samples determined by IR spectroscopy of adsorbed pyridine (B_{Py}) as a function of temperature.