



Technical Data Sheet

ACS Material Microporous Titanium Silicalite-1 Molecular Sieve (TS-1)

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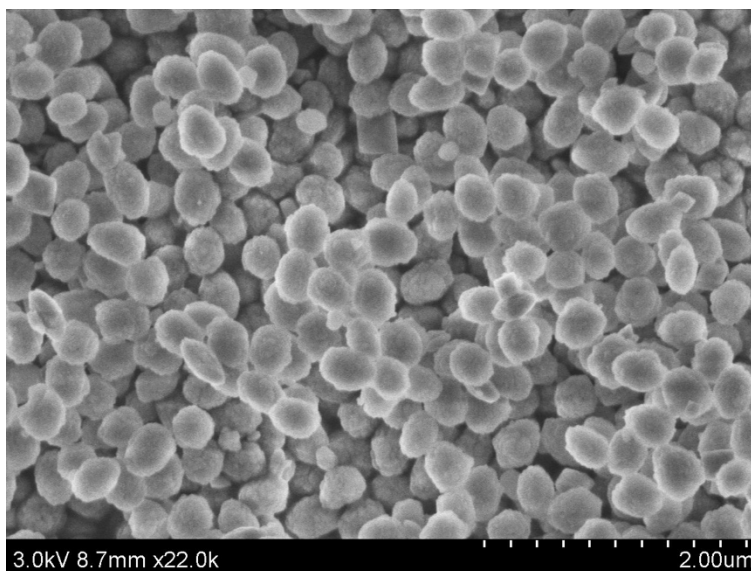
Revision: 070718

1. Preparation Method

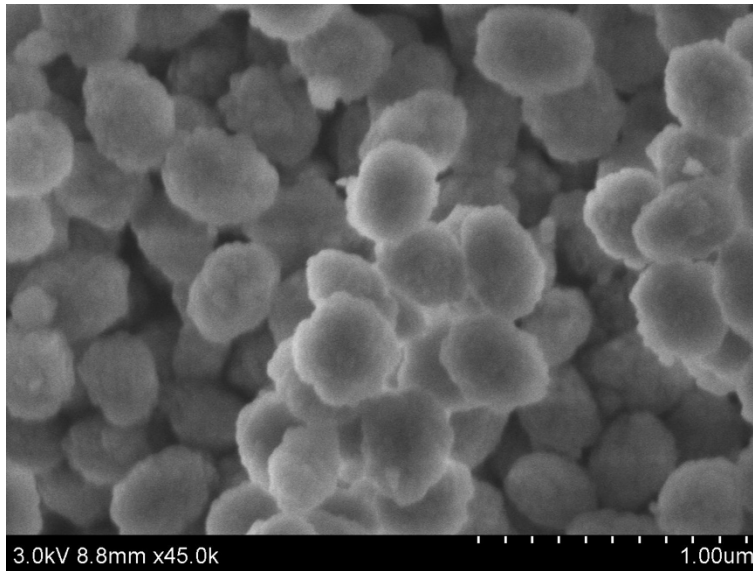
Hydrothermal Method

2. Characterizations

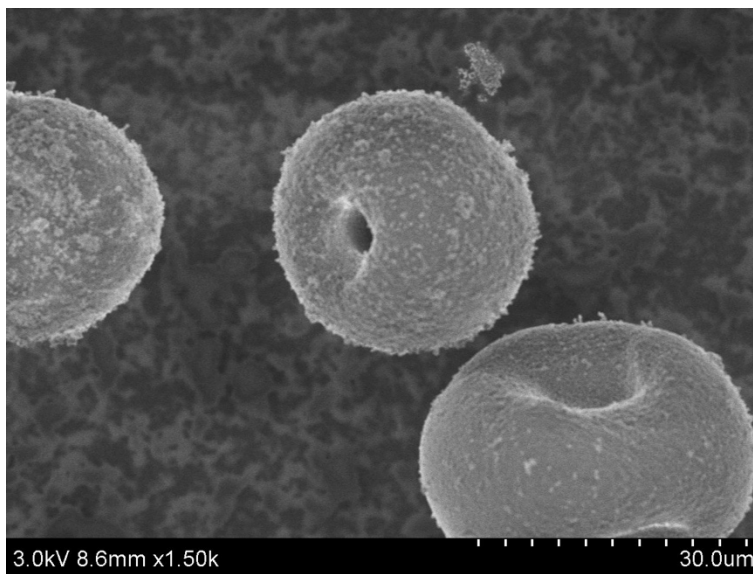
Form:	Powder (Type A)	Powder (Type B)
SiO ₂ /TiO ₂ Molar Ratio:	≥25	≥25
Particle Size (μm):	0.3-0.5	20-50
Pore Diameter (nm):	0.5	0.5
BET surface area (m ² /g):	360-420	360-420
Comparative Crystallinity (%):	>95	>95
Na ₂ O (%):	<0.1	<0.1
Cation:	H ⁺	---



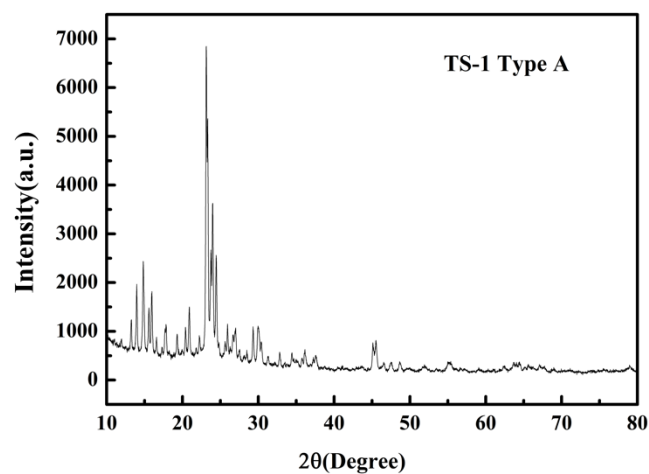
Typical SEM Image (1) of ACS Material TS-1 (Type A)



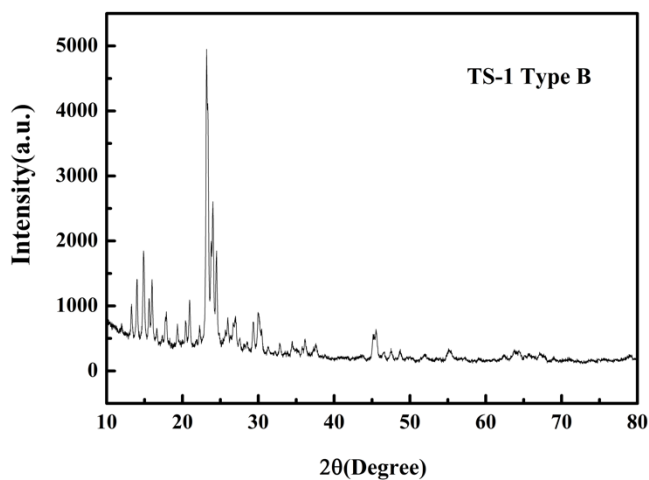
Typical SEM Image (2) of ACS Material TS-1 (Type A)



Typical SEM Image of ACS Material TS-1 (Type B)



Typical XRD Analysis of ACS Material TS-1 (Type A)



Typical XRD Analysis of ACS Material TS-1 (Type B)

3. Application Fields

- 1) Alkene epoxidation
- 2) Cyclohexanone ammoxidation
- 3) Alcohol oxidation
- 4) Oxidation of saturated hydrocarbon
- 5) Hydroxylation of aromatic hydrocarbons

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