Supporting Information

Sn-MFI as Active, Sulphur and Water Tolerant Catalysts for Selective Reduction of NO_x

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Table S1. ICP measurements of the chemical compositions of Sn-MFI samples

Samples	Si/Sn molar ratio[a]	Si/Sn molar ratio[b]	SnO_2 contents (%)[b]
Silicalite-1	--	--	--
Sn-MFI-133	133	131	1.9
Sn-MFI-67	67	65	3.6
Sn-MFI-33	33	33	7.1

[a] Initial Si/Sn ratios for sample preparation.

[b] Identified by ICP-AES.

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Table S2. Textural properties of Sn-MFI samples measured by XRD and SEM.

Samples	Mean Crystallite size (nm)[a]	Mean particle size (μm)[b]	Agglomeration factor[c]
Silicalite-1	51.7	9.5	245.5
Sn-MFI-133	44.3	1.0	29.5
Sn-MFI-67	41.0	0.7	20.5
Sn-MFI-33	31.5	0.5	19.5
Sn-MFI-20	--	0.2	--

[a] Measured by XRD and based on hkl (101) peak.

[b] Measured by SEM.

[c] Measured by Mean particle size/Mean crystallite size.[1]

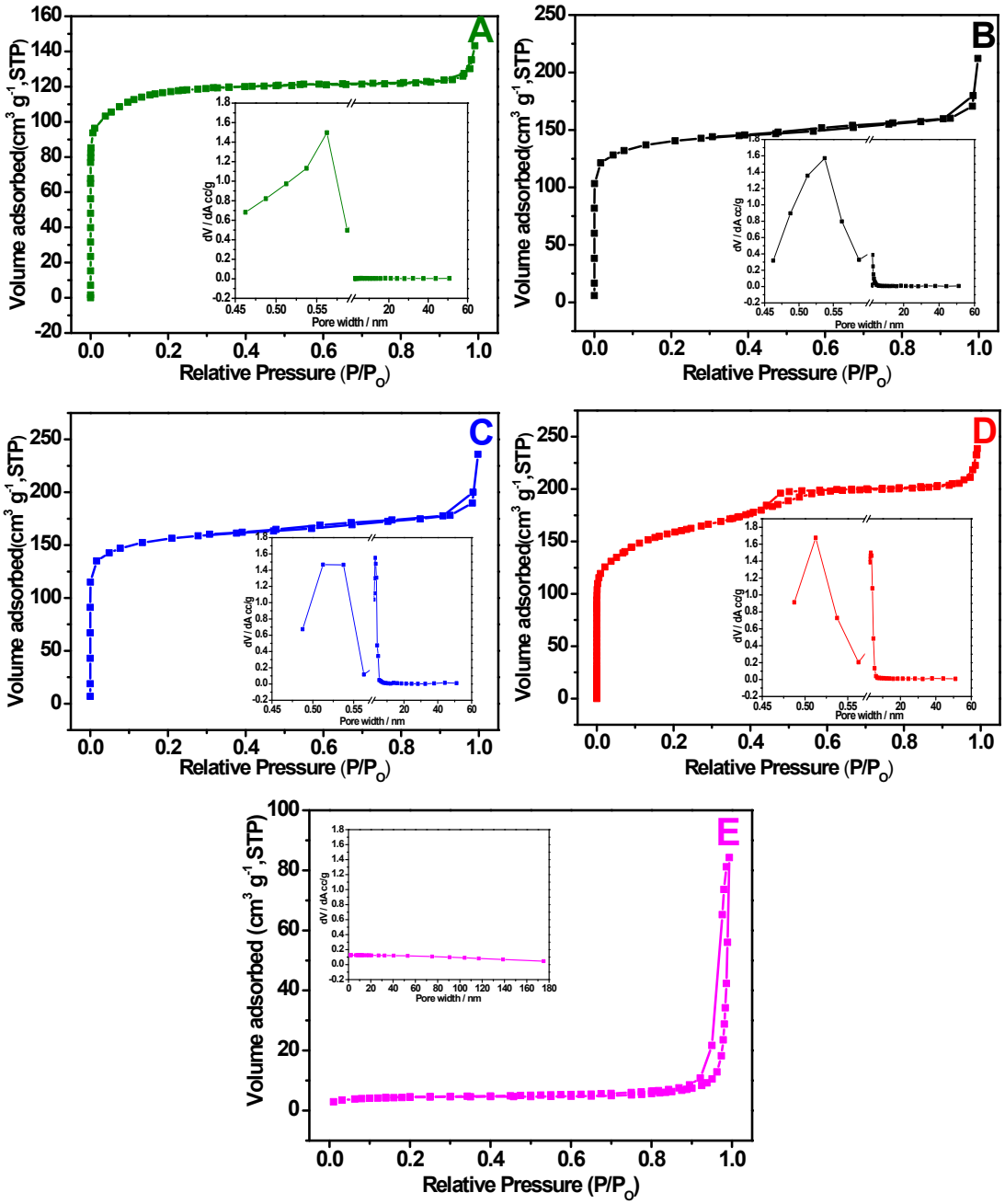

Fig. S1. N_2 adsorption-desorption isotherms and pore size distributions of Silicalite-1 (A), Sn-MFI-133 (B), Sn-MFI-67 (C), Sn-MFI-33 (D) and Sn-MFI-20 (E)

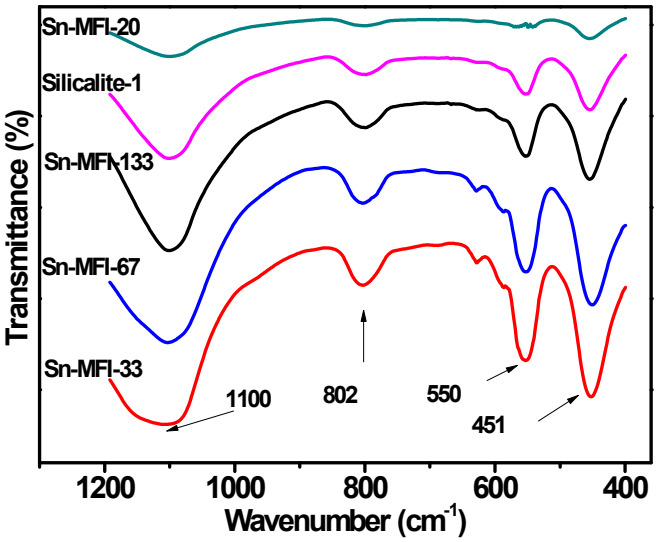

Fig. S2. FTIR spectra of Sn-MFI samples

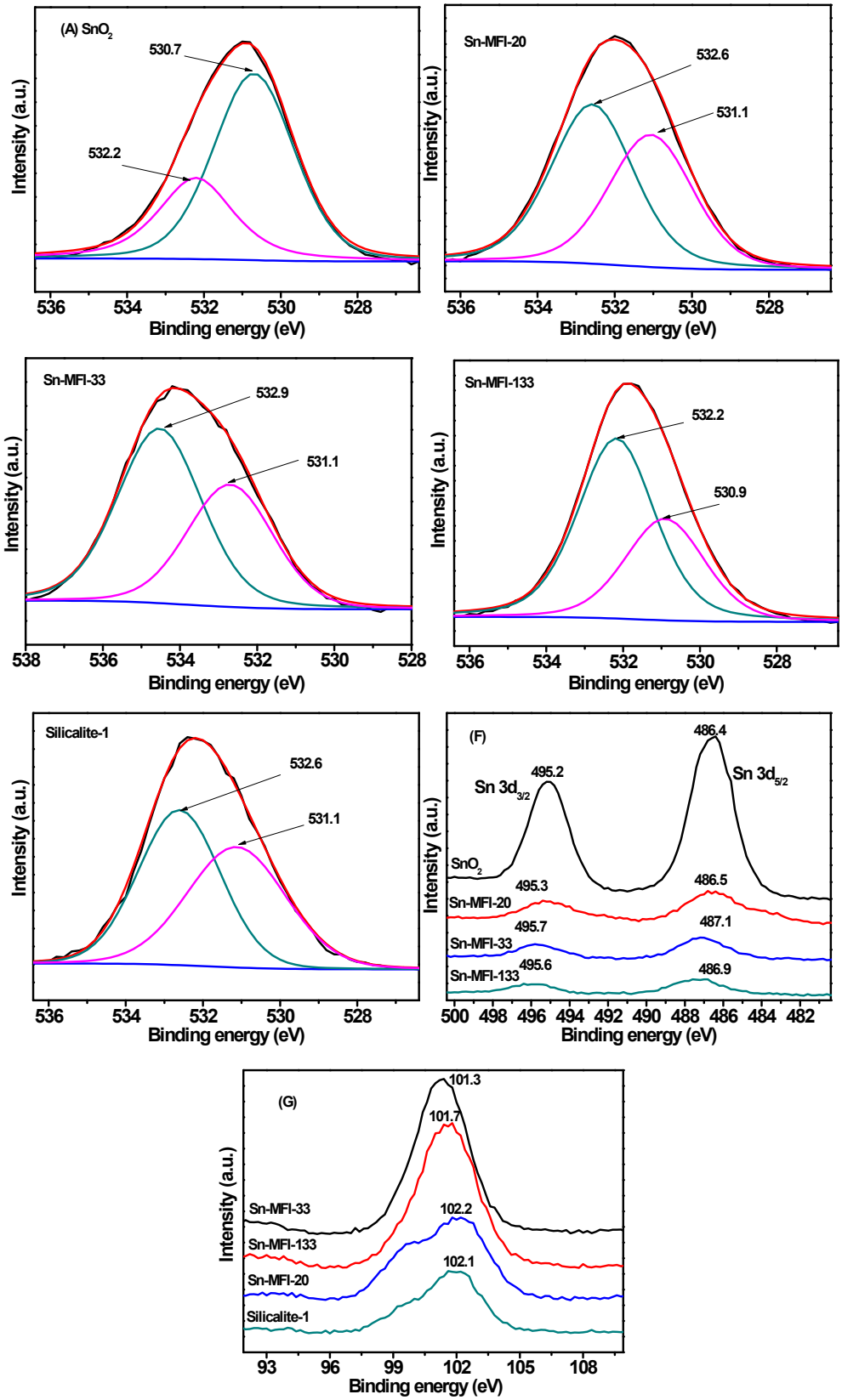

Fig. S3. XPS analysis of Sn-MFI samples: A-E) deconvolution of O 1s peaks; F) Sn 3d peaks; G) Si 2p peaks

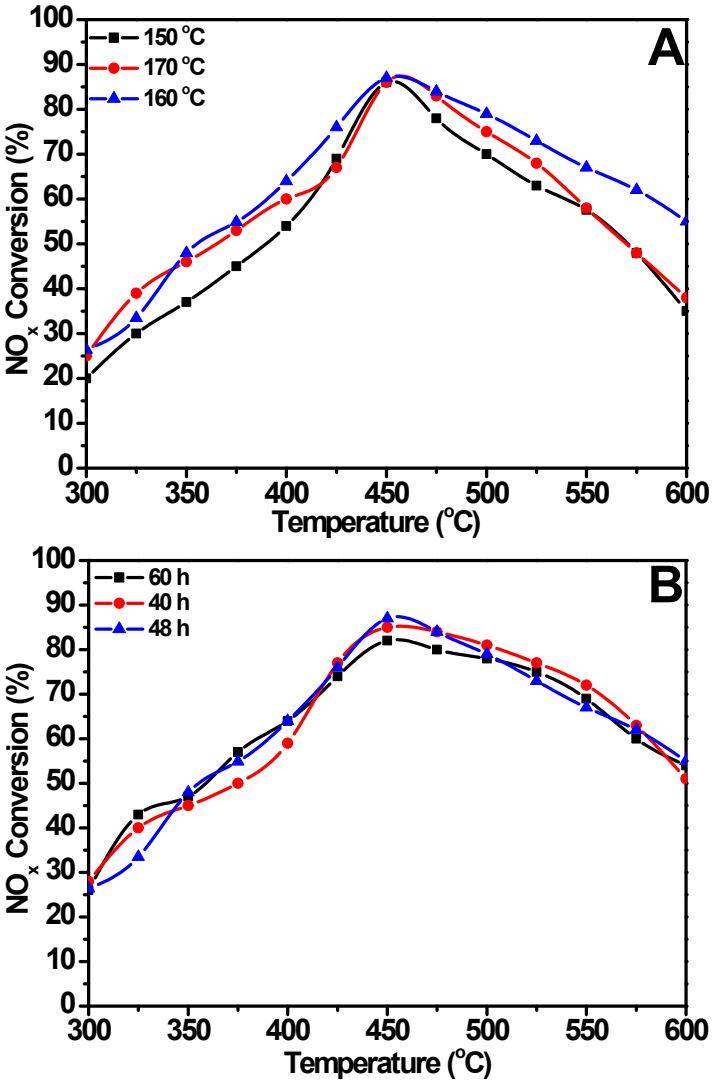

Fig. S4. Effects of (A) crystallization temperature and (B) crystallization time on the reaction performance of n-MFI-33

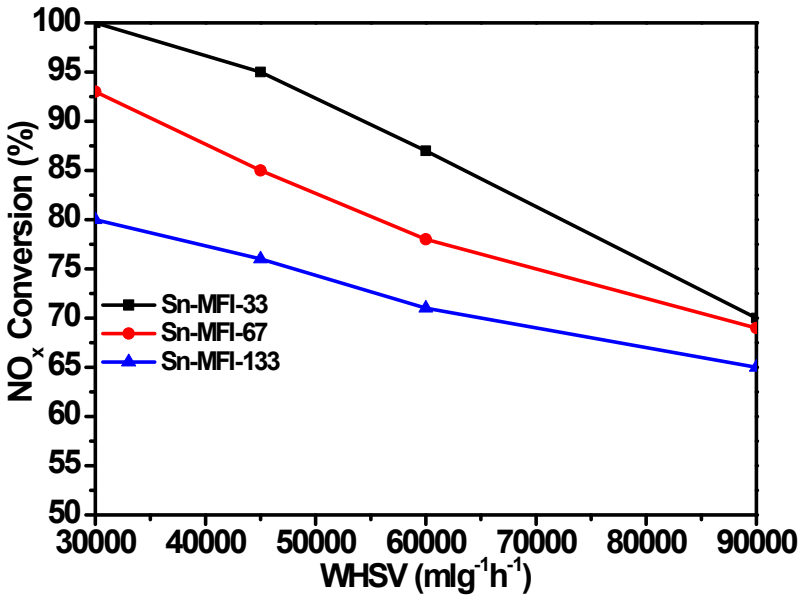

Fig. S5. Effects of WHSV on the reaction performance of Sn-MFI-33

[1] J. Yu, D. Zhao, X. Xu, X. Wang, N. Zhang, *ChemCatChem,* 2012, 4, 1122-1132.