

Supplementary data

Table S1. Comparison of the performance with other reported catalyst

Catalyst	Conditions	Reaction temperatures/°C	Conversion of NO _x /%	Reference
FeM36 zeolites	NO (800 ppm) O ₂ (3.5 vol%)	150	50	[S1]
CSWB/T	SO ₂ (200 ppm) H ₂ O (5 vol%)	200	65	[S2]
MnFe/TiO ₂ -h-0h	NO (1000 ppm) H ₂ O (2.3 vol%) O ₂ (4 vol%)	150	37	[S3]
Cr _{0.0006} Mn _{0.05} CeTiO _x	NO (500 ppm)	150	83	[S4]
V-Sb/Ti	NO (300 ppm) H ₂ O (5 vol%) O ₂ (5 vol%)	200	68	[S5]
γ-Fe ₂ O ₃	NO (500 ppm) SO ₂ (100 ppm) O ₂ (5 vol%)	200	80	[S6]
FeW	NO (500 ppm) SO ₂ (200 ppm) O ₂ (3 vol%)	150	18	[S7]
V ₂ O ₅ -MoO ₃ /TiO ₂	NO(700 mg/Nm ³ or 523 ppm) SO ₂ (2000 mg/Nm ³ or 700 ppm) O ₂ (4 vol%)	200	73	This Work
V ₂ O ₅ -MoO ₃ /TiO ₂	NO(500-800 mg/Nm ³ or 370-597 ppm) SO ₂ (35 mg/Nm ³ or 12 ppm) O ₂ (4-6 vol%)	160-180	75	This Work

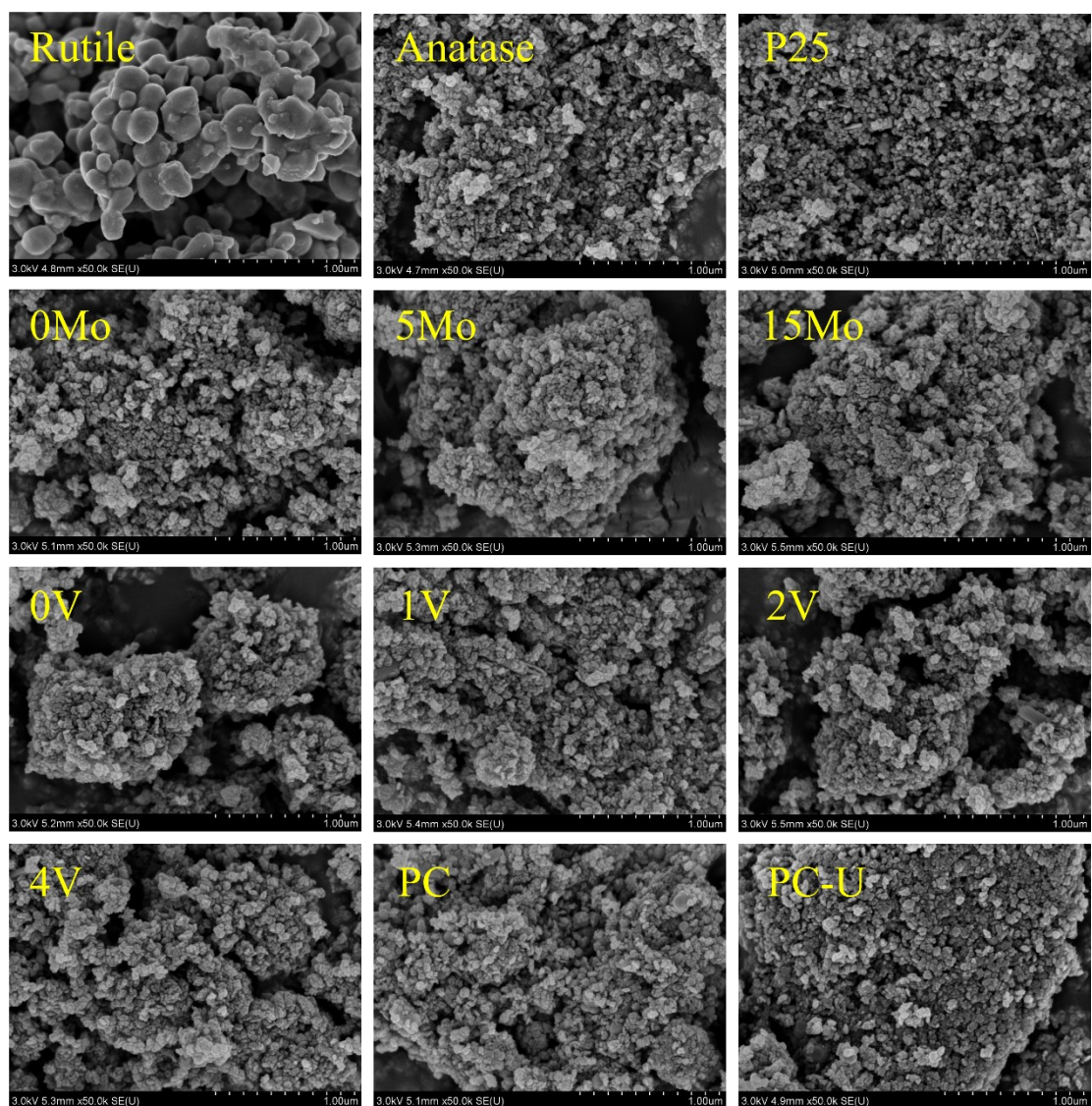


Figure S1. SEM images.

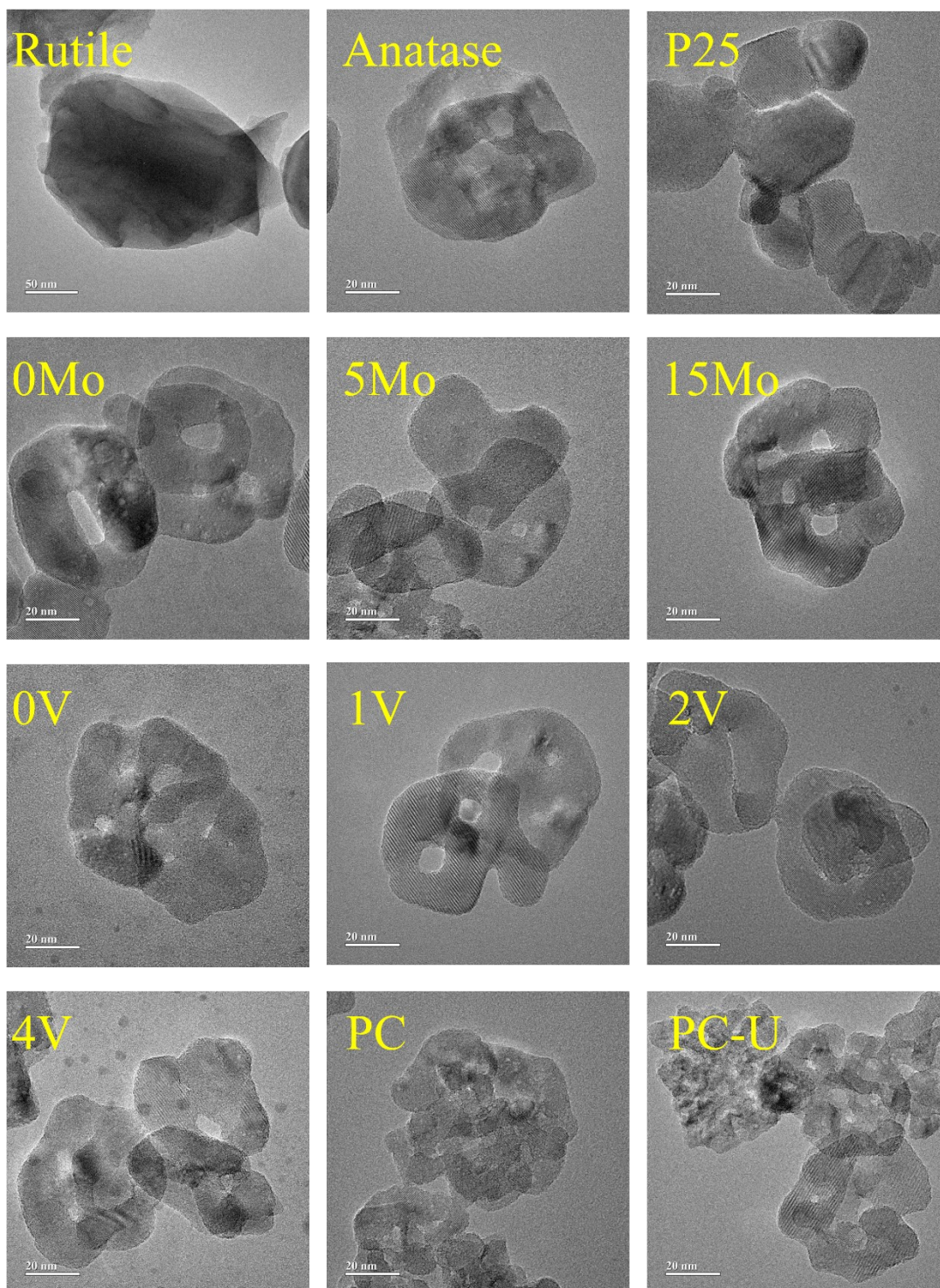


Figure S2. TEM images.



Figure S3. Plate type catalyst used for 2 years.

Notes and references

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- [S4] W. Liu, Z. Gao, M. Sun, J. Gao, L. Wang, X. Zhao, R. Yang, L. Yu, One-pot synthesis of Cr_αMn_βCeTiO_x mixed oxides as NH₃-SCR catalysts with enhanced low-temperature catalytic activity and sulfur resistance, *Chem. Eng. Sci.* 251 (2022) 117450, <https://doi.org/10.1016/j.ces.2022.117450>.
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NH₃-SCR reaction: A collaborated experimental and DFT study. *Appl. Catal. B.* 281 (2021) 119544, <https://doi.org/10.1016/j.apcatb.2020.119544>.

[S7] H. Wang, Z. Qu, S. Dong, C. Tang, Mechanistic investigation into the effect of sulfuration on the FeW catalysts for the selective catalytic reduction of NO_x with NH₃. *ACS Appl. Mater. Interfaces* 9 (2017) 7017–7028,

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