

Facile Preparation of High-performance Fe-doped Ce-Mn/TiO₂ Catalysts for the Low-temperature Selective Catalytic Reduction of NO_x with NH₃

Table S1. Research results on Ce/ Mn-based catalysts in literatures.

Catalysts	Preparation methods (calcination temperature)	Reaction conditions	Highest NO _x conversion/N ₂ selectivity (temperature range)	Sources
CeMo _{0.5} Zr ₂ O _x	Calcined at 500 °C	NO 500 ppm, NH ₃ 500 ppm, O ₂ 5 vol %, GHSV 50000 h ⁻¹	100% (150-400 °C)	S1
Mn _{0.2} Ce _{0.1} Ti _{0.7} O	Calcined at 500 °C	NO 500 ppm, NH ₃ 500 ppm, 5% O ₂ , balance He, GHSV 64,000 h ⁻¹	>90% (150-350°C)	S2
Mn-Ce-Fe/TiO ₂	Calcined at 450 °C	NO 1000 ppm, 1000 ppm NH ₃ , O ₂ 5%, N ₂ balance, GHSV 27,000 h ⁻¹	87% (150 °C)	S3
V/Ce _{0.7} Ti _{0.3} O ₂ V/Ce _{0.5} Ti _{0.5} O ₂	Calcined at 400 °C	0.1% NO, 0.1% NH ₃ , 5% O ₂ /He, GHSV 70,000 h ⁻¹	100% (<200 °C)	S4
MnO _x (0.4)- CeO ₂ (650)	Calcined	NO 1000 ppm, 1000 ppm NH ₃ , O ₂ %, and balance He, GHSV 42,000 h ⁻¹	74-94% (100-180 °C)	S5
Mn(20)/Ce(4)-TiO ₂	Calcined at 400 °C	200 ppm NO _x , 220 ppm NH ₃ , O ₂ 8% , GHSV 60,000 h ⁻¹	30-90% (120-180 °C)	S6
Mn/Ce-ZrO	Calcined at 500 °C	NO 600 ppm, NH ₃ 660 ppm, O ₂ 6 vol.%, GHSV 45,000 h ⁻¹	98.6% (180 °C)	S7
Fe(0.1)-Mn-Ce/TiO ₂	Calcined at 500 °C	NO 0.06 vol%, NH ₃ 0.06 vol%, O ₂ 3 vol% balance N ₂ , GHSV 50,000 h ⁻¹	96.8% (180°C)	S8
CuCeTi	Calcined at 500 °C	NO 500 ppm, NH ₃ 500 ppm, O ₂ 5%, balanced in N ₂ GHSV 30.000 h ⁻¹	80-96% (150-250°)	S9
Ce-Mn-Fe/TiO₂	Calcined at 500 °C	500 ppm NO, 500 ppm NH₃, 3% O₂, N₂ balance gas, GHSV 10,000 h⁻¹	96% (100 °C); nearly 100% (120-160 °C)	This work

References

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