

Electronic Supplementary Information

Amorphous MnO₂ supported on carbon nanotubes as a superior catalyst for low temperature NO reduction with NH₃

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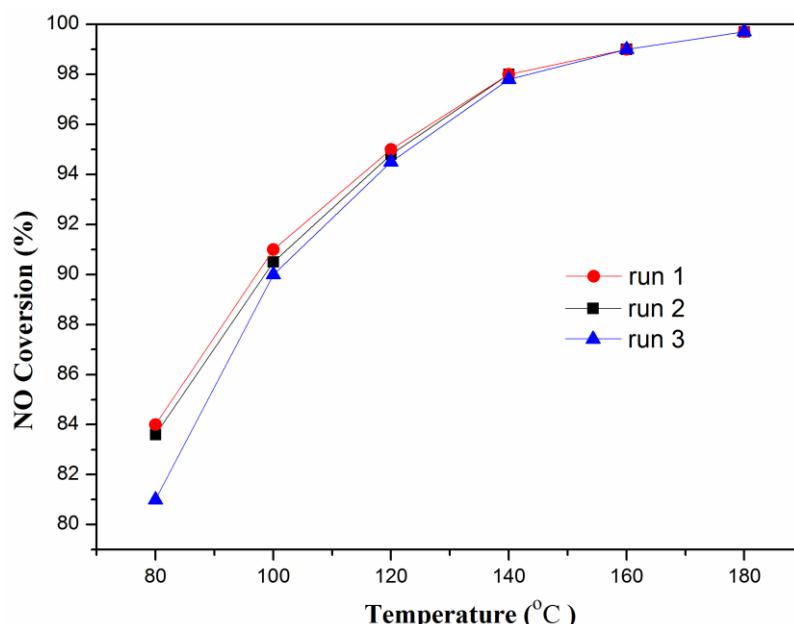


Fig. S1 Cyclic activities of 60 % MnO₂/CNTs catalyst for SCR of NO with NH₃

Tab. S1 Comparison of activity of various CNTs-based catalysts for low temperature SCR of NO with NH₃

| Catalyst | Preparation Method | Feed composition | | | C _{NO} ^e (%) at 160 °C | SV (h ⁻¹) | Ref. |
|-------------------------------------|--------------------|------------------|-----------------------|--------------------|--|-----------------------|-----------|
| | | NO (ppm) | NH ₃ (ppm) | O ₂ (%) | | | |
| MnO _x /MWNTs | WI ^a | 900 | 900 | 5 | 78 | 30,000 | [1] |
| CeO ₂ /CNTs | PT ^b | 500 | 500 | 3 | 30 | 20,000 | [2] |
| MnO _x /MWNTs | PVI ^c | 1000 | 1000 | 5 | 30 | 40,000 | [3] |
| CeO ₂ /CNTs | WI | 600 | 600 | 3.5 | 38 | 100,000 | [4] |
| V ₂ O ₅ /CNTs | WI | 800 | 800 | 5 | 75 | 35,000 | [5] |
| MnO ₂ /CNTs | CP ^d | 500 | 500 | 5 | 99 | 38,000 | This work |

^a wet impregnation

^b pyridine-thermal route

^c pore volume impregnation

^d co-precipitation

^e NO conversion

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