Electronic Supplementary Information (ESI)

Controllable synthesis of Ce-doped α-MnO_2 for low-temperature selective catalytic reduction of NO

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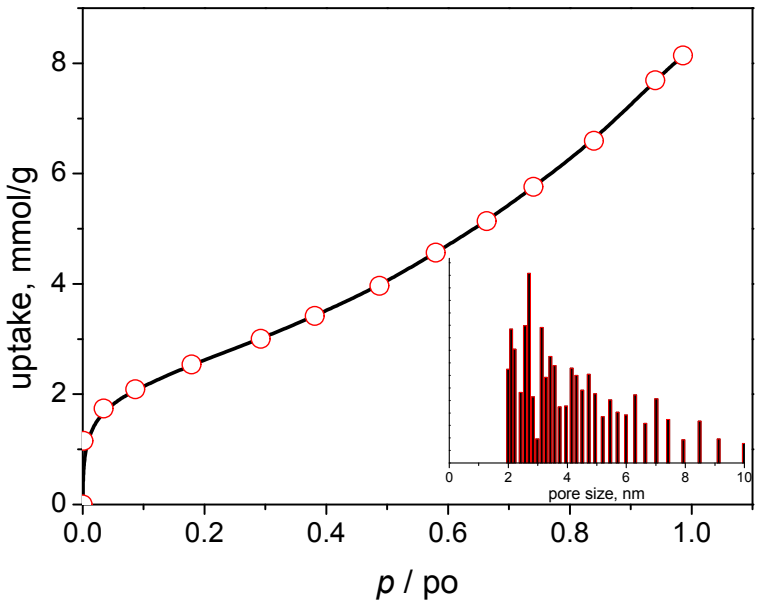

Figure S1. N_2 adsorption isotherms at 77K and pore size distributions of $MnCe(0)O_x$

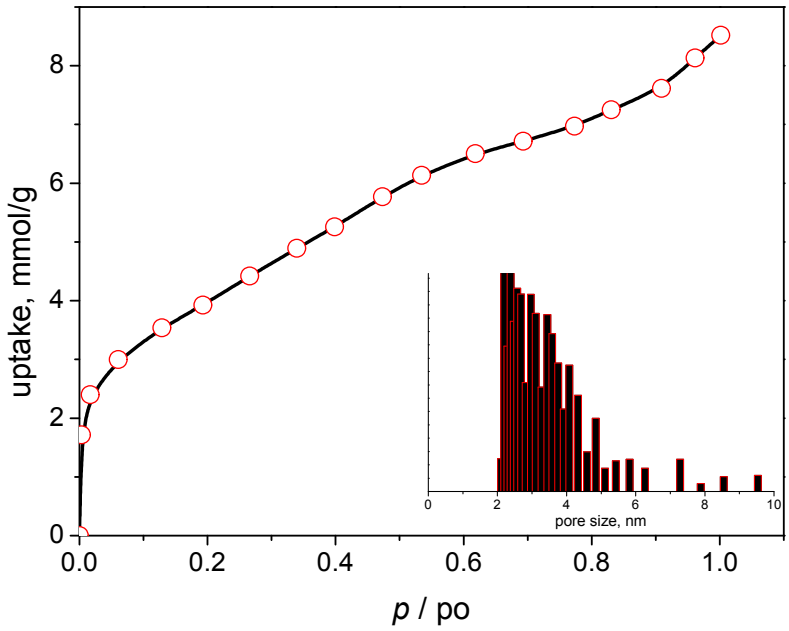

Figure S2. N_2 adsorption isotherms at 77K and pore size distributions of $MnCe(0.2)O_x$

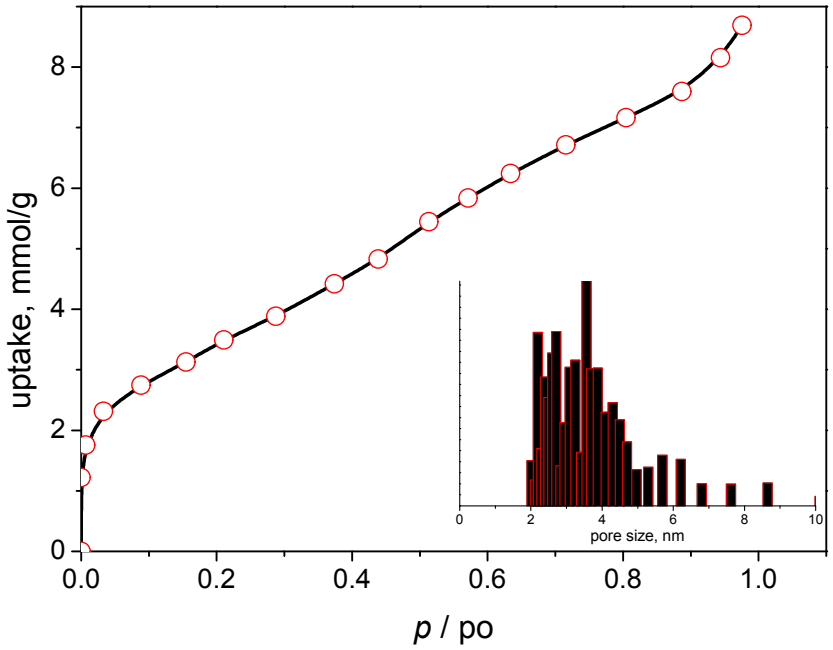

Figure S3. N_2 adsorption isotherms at 77K and pore size distributions of $MnCe(0.3)O_x$

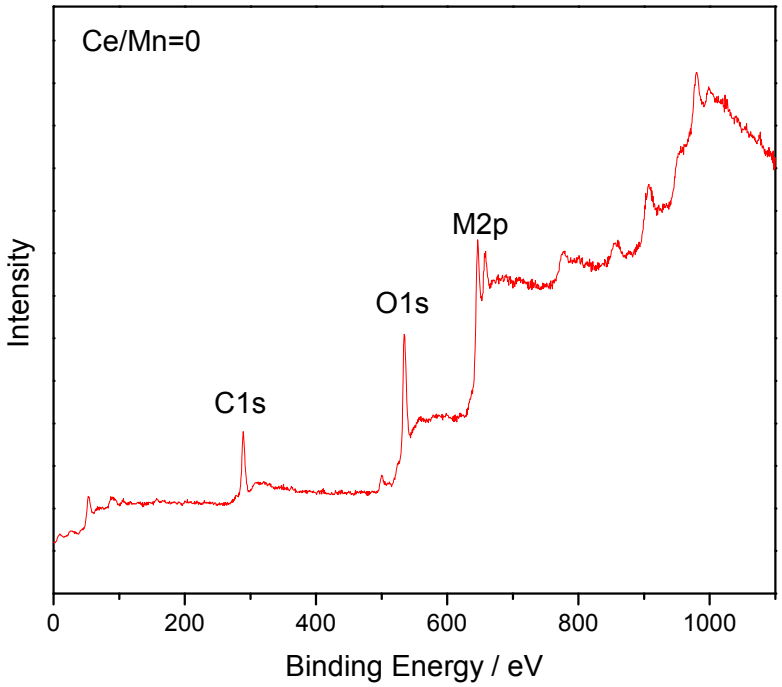

Figure S4. XPS spectrum of MnCe(n)O_x catalyst with a Ce/Mn molar ratio of 0

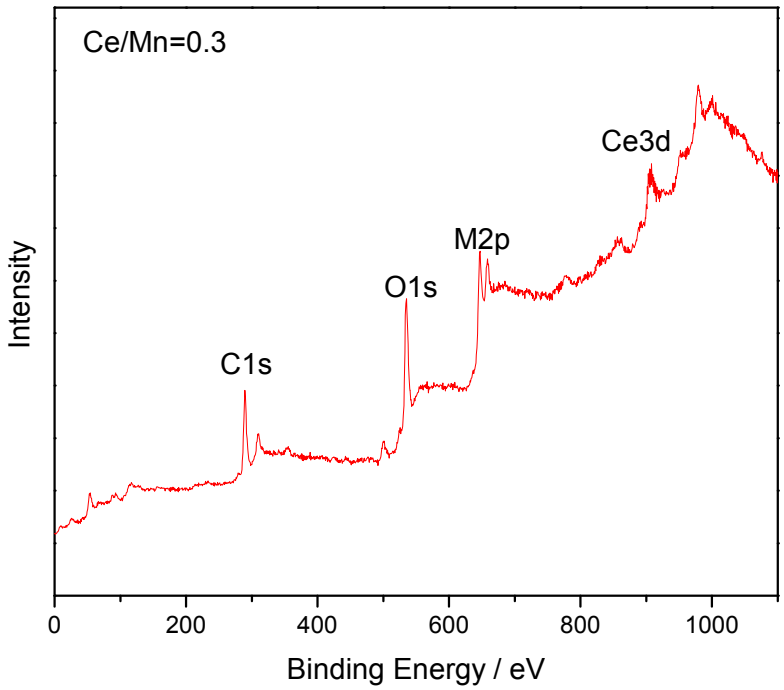

Figure S5. XPS spectrum of MnCe(n)O_x catalyst with a Ce/Mn molar ratio of 0.3

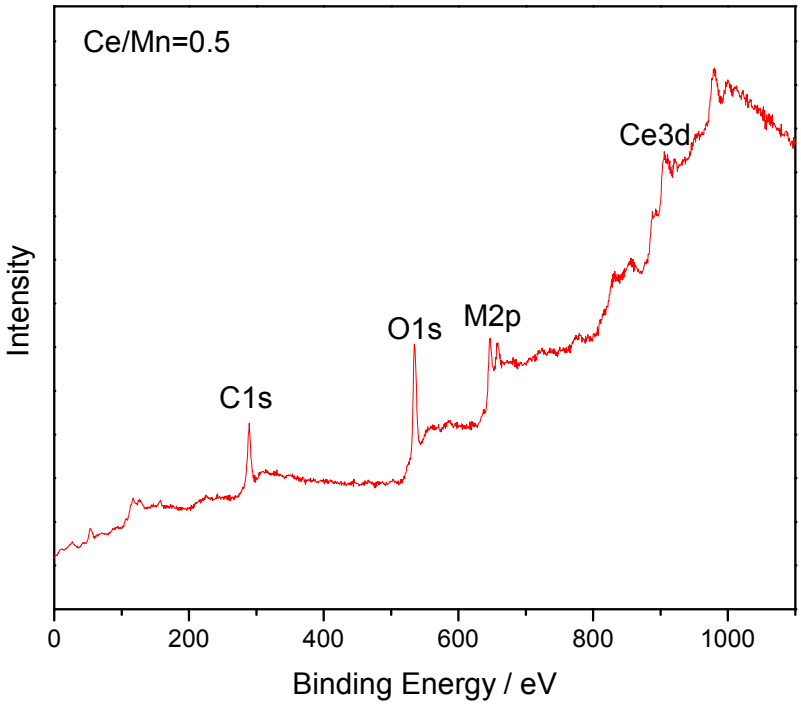

Figure S6. XPS spectrum of MnCe(n)O_x catalyst with a Ce/Mn molar ratio of 0.5

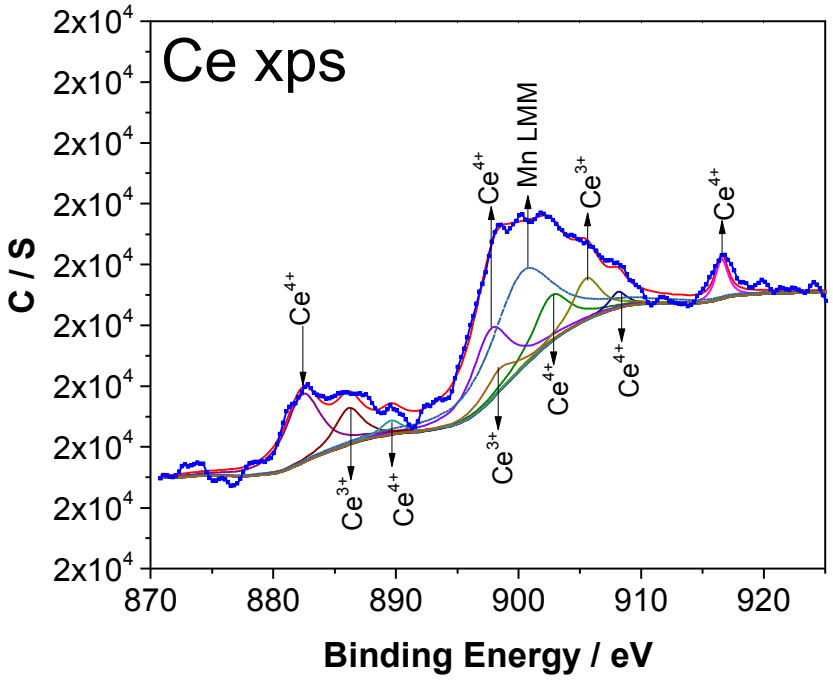

Figure S7. Fitting of XPS spectrum of Ce in the MnCe(n)O_x catalyst with a molar ratio Ce/Mn = 0.3

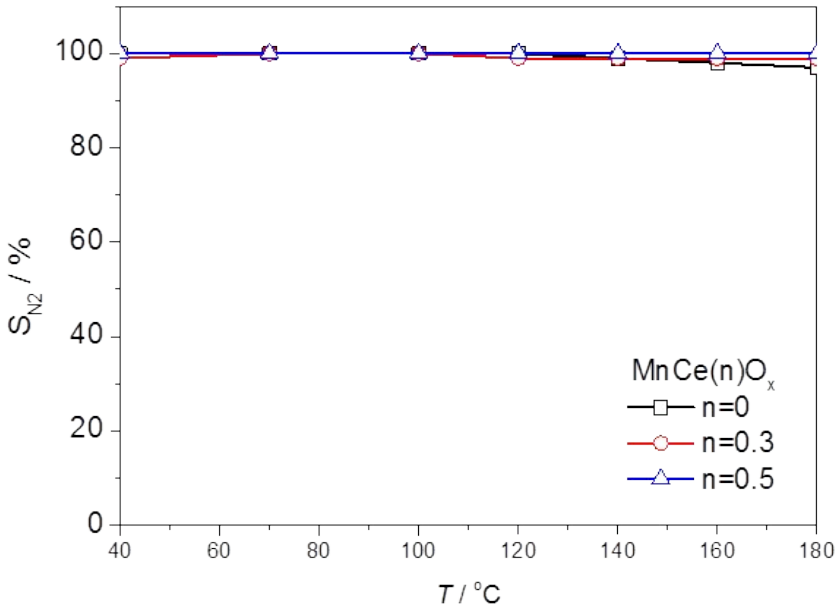

Figure S8. N_2 selectivity on $MnCe(n)O_x$ catalyst in the temperature range of 40 °C -180 °C

Table S1. Data for kinetics calculations.

T (°C)	$1/T$ (K)	η_{NO}	$\ln(-\ln(1-\eta_{NO}))$
25	0.003354	0.076	-2.543
50	0.003095	0.093	-2.326
80	0.002832	0.157	-1.767
110	0.002610	0.315	-0.976
140	0.002420	0.567	-0.267
170	0.002257	0.846	0.625
190	0.002159	0.942	1.046