Supporting Information

Solvothermal Synthesis of Spherical $CoMnO_3$ Catalysts for Efficient Trace Ethylene Removal under High Humidity

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Table S1. The element contents in $MnCoO_x$ catalysts determined by ICP.

Catalyst	Mn content (wt%)	Co content (wt%)	Molar ratio of Mn/Co
$Mn_6Co_1O_x$	34.3	7.7	5.1
$Mn_5Co_2O_x$	36.2	15.2	2.6
$Mn_4Co_3O_x$	29.3	23.5	1.3

Table S2. Textural characteristics of the catalysts.

Catalyst	Specific surface area ($m^2\ g^{-1}$)	Pore volume ($cm^3\ g^{-1}$)	Average pore size (nm)
MnO_x	97.9	0.20	8.3
$Mn_6Co_1O_x$	122.7	0.24	8.2
$Mn_5Co_2O_x$	142.3	0.25	6.7
$Mn_4Co_3O_x$	103.9	0.23	9.1
Co_3O_4	49.3	0.24	19.4

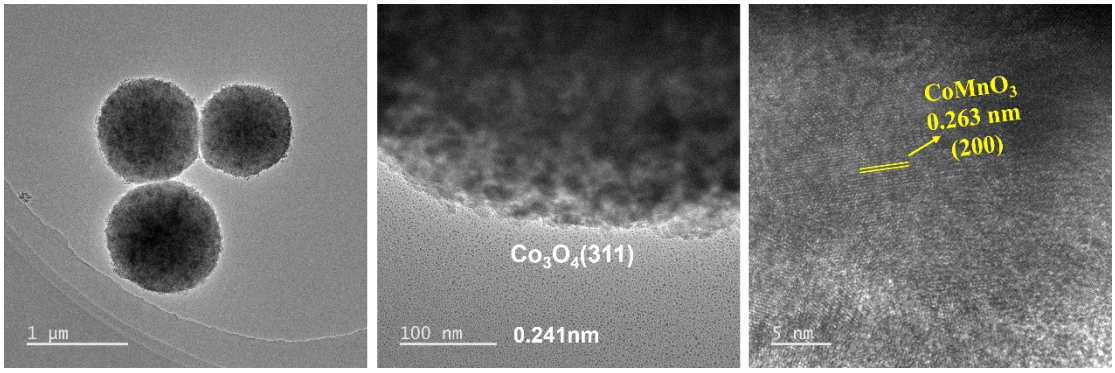

Fig. S1. TEM images of the fresh $Mn_5Co_2O_x$ catalyst.

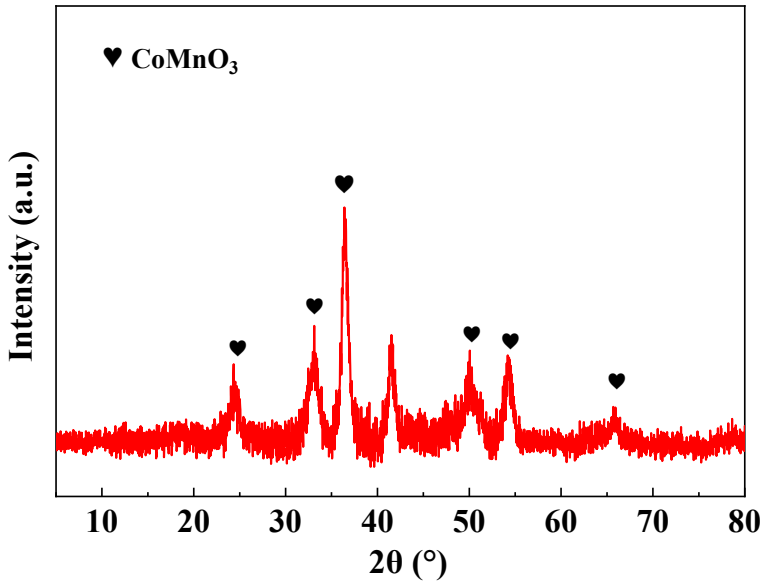

Fig. S2. XRD pattern of the $Mn_5Co_2O_x$ catalyst after stability test.

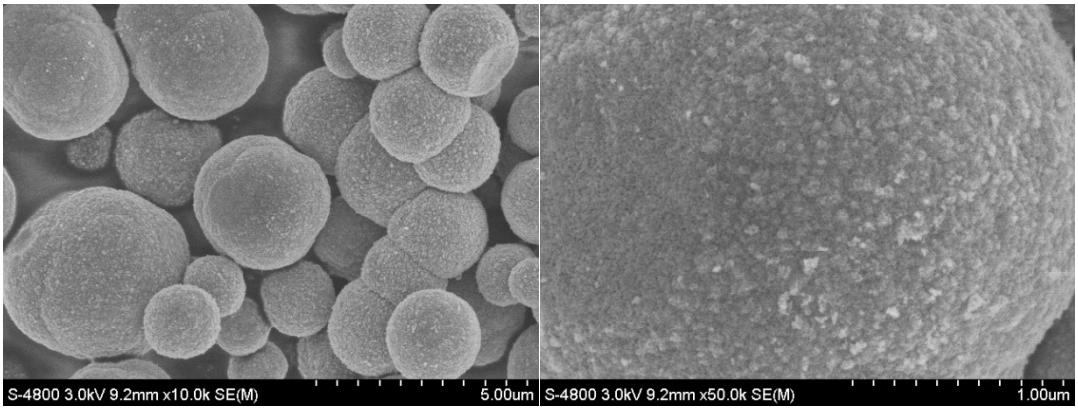

Fig. S3. SEM images of the $Mn_5Co_2O_x$ catalyst after stability test.