Supplementary Material

Catalytic removal of 1,2-dichloroethane over $LaSrMnCoO_6$/H-ZSM-5 composite: Insights into synergistic effect and pollutant destruction mechanism

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Table S1 Physicochemical properties and catalytic performance of synthesized catalysts

Samples	S_{BET}[a] (m^2/g)	D_v[b] (cm^3/g)	D_p[c] (nm)	T_{50}[d] (°C)	T_{90}[d] (°C)	S_{CO2}[f] (%)	S_{CO}[f] (%)	S_{HCl}[f] (%)	S_{Cl2}[f] (%)	C_B[g] (%)
La_2MnCoO_6	9.97	0.19	83.2	435	528	79.2	21.0	29.4	67.3	100.2
$La_{1.5}Sr_{0.5}MnCoO_6$	6.80	0.12	53.8	449	535	66.1	32.4	32.2	66.7	98.5
$LaSrMnCoO_6$	11.00	0.12	53.6	415	509	89.2	11.7	40.0	60.3	100.9
$La_{0.5}Sr_{1.5}MnCoO_6$	8.06	0.10	36.2	466	540	68.2	32.0	30.3	69.1	100.2

[a] BET surface area calculated at P/P_0 = 0.05-0.25; [b] Total pore volume estimated at P/P_0 = 0.99; [c] BJH pore diameter calculated from the absorption branch; [d] Temperatures at which 50% and 90% conversion of 1,2-DCE; [f] Selectivity of CO_2, CO, HCl, and Cl_2 over synthesized materials at 580 °C; [g] Carbon balance of prepared materials at 580 °C.

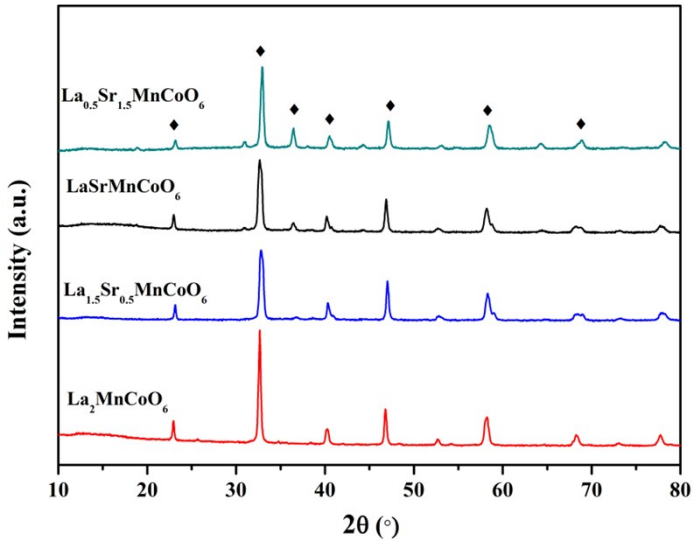

Fig. S1 XRD of the synthesized c materials.

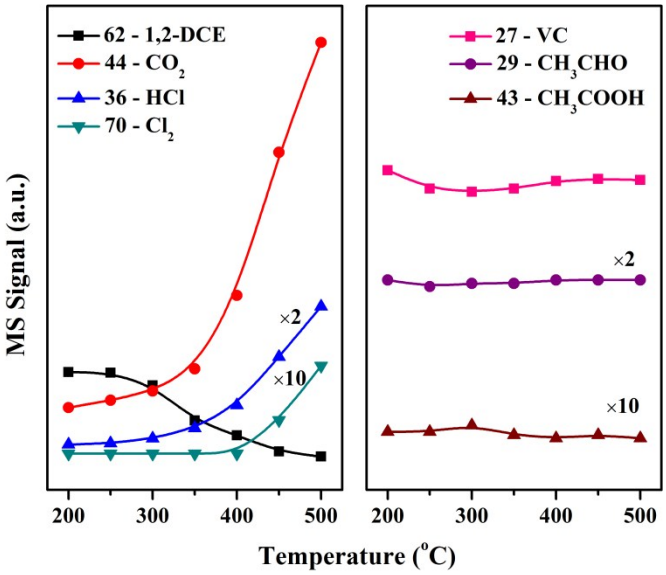

Fig. S2 MS signal of 0.1LSMC/Z sample.

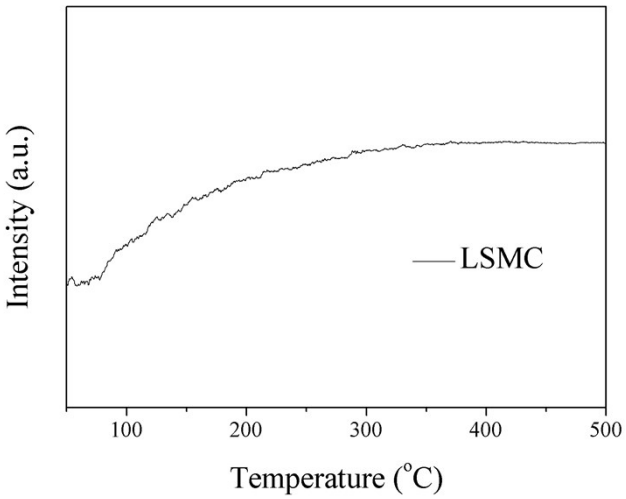

Fig. S3 1,2-dichloroethane adsorption capacity of LSMC.