

Supporting information

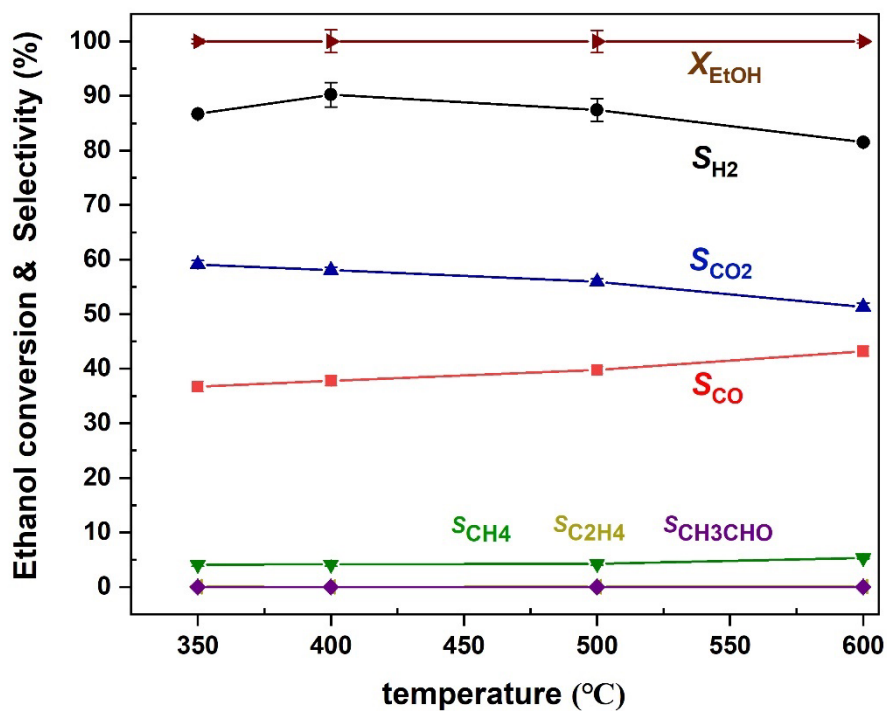


Fig.S1 Selectivity of the LZR02/LZO catalysts at different reaction temperatures
Reaction condition: GHSV= $1.6 \times 10^5 \text{ h}^{-1}$, $\text{H}_2\text{O}/\text{EtOH} = 3:1$, $\text{O}_2/\text{EtOH}=0.5:1$.

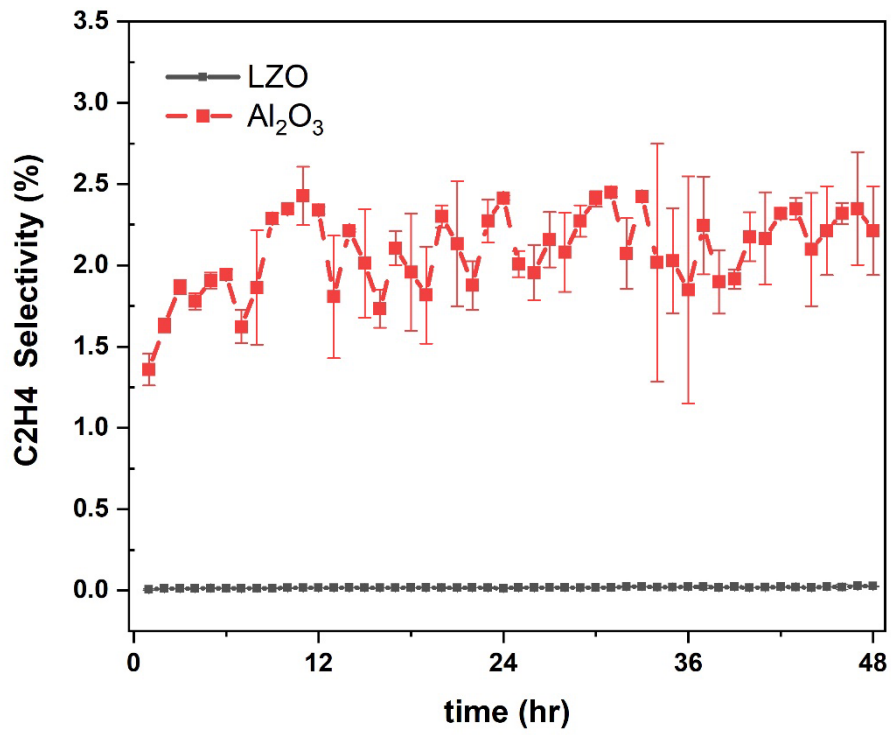


Fig.S2 The proportional production of C₂H₄ using LZRO02 catalyst supported on LZO (black) or ALO (red) during the long-term stability test.