

Figure S1 SEM images of ground orthorhombic a), trigonal b), amorphous c), and tetragonal d)  $\text{Mo}_3\text{VO}_x$  samples after catalytic test.

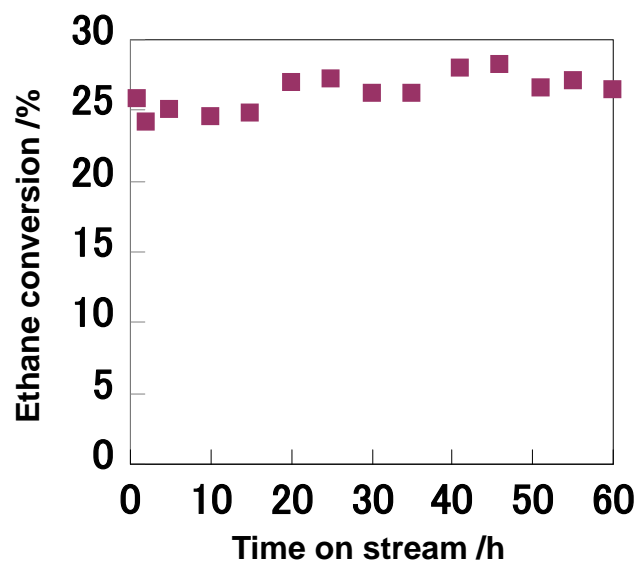


Figure S2 Ethane conversion change as the function of time on stream over the orthorhombic catalysts at 300 °C. The other reaction conditions are the same as those in Figure 6.