

**Supporting Information**

**Enhanced Catalytic Performance of Molybdenum Doped Mesoporous SBA-15  
for Metathesis of 1-butene and Ethene to Propene**

Chao Lin,<sup>a,b</sup> Kai Tao,<sup>a</sup> Hongbo Yu,<sup>a</sup> Dayin Hua,<sup>b,\*</sup> Shenghu Zhou<sup>a,\*</sup>

<sup>a</sup>Ningbo Institute of Materials Technology and Engineering, Chinese Academy of  
Sciences, Ningbo, Zhejiang 315201, P. R. China

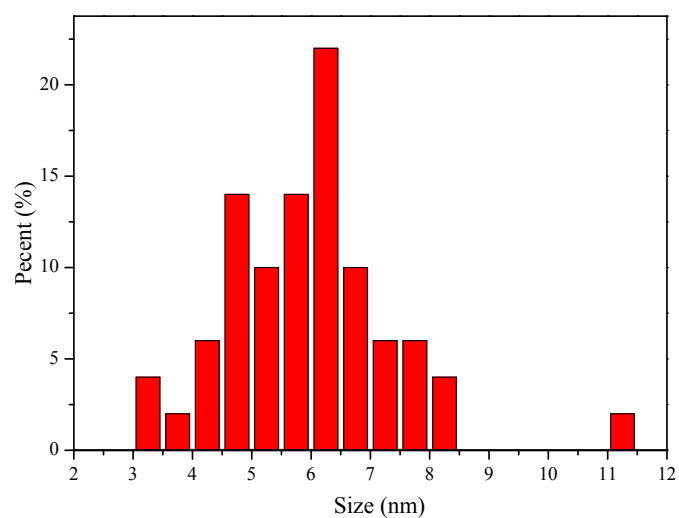
<sup>b</sup>Department of Physics, Faculty of Science, Ningbo University, Ningbo, Zhejiang  
315211, P. R. China

**\*Corresponding author**

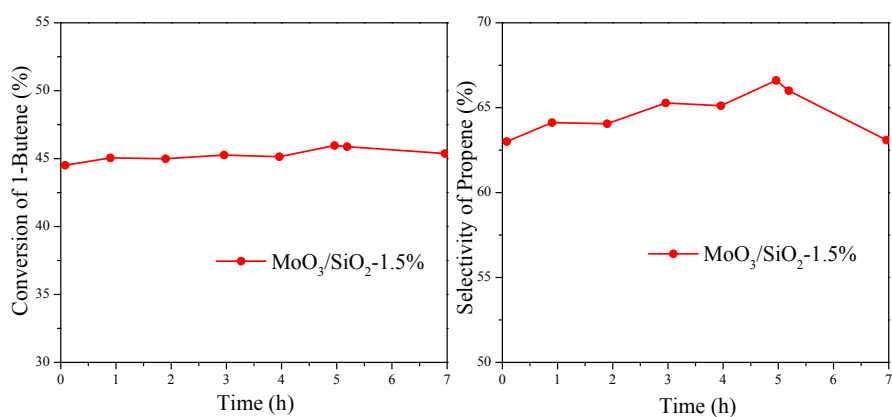
Tel.: (+86) 574 86696927

Fax: (+86) 574 86685043

E-mail: zhoush@nimte.ac.cn; huadayin@nbu.edu.cn



**Figure S1.** Size distribution of MoO<sub>3</sub> nanoparticles for MoO<sub>3</sub>/SBA-15 catalysts.



**Figure S2.** 1-butene conversion (left panel) and propene selectivity (right panel) over 3.0 wt% Mo-contained catalysts. Reaction conditions: T=450 °C; P=0.1 MPa; 1-C<sub>4</sub>H<sub>8</sub>/C<sub>2</sub>H<sub>4</sub>=1/2; WHSV (1-C<sub>4</sub>H<sub>8</sub>+C<sub>2</sub>H<sub>4</sub>) of 1.0 h<sup>-1</sup>; catalyst weight=2.0 g.