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## Supplementary data

Selective hydrodeoxygenation of 5-hydroxymethylfurfural to 2, 5dimethylfuran on Ru-MoOx/C catalysts

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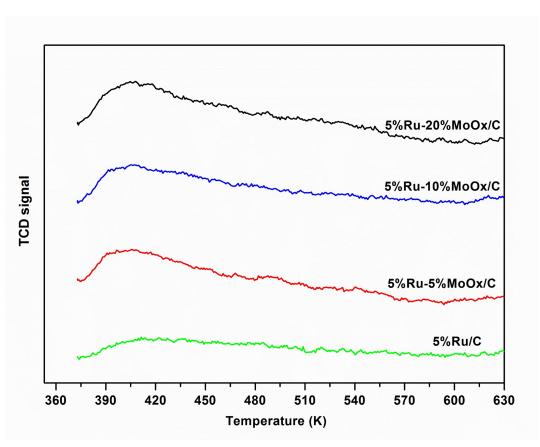
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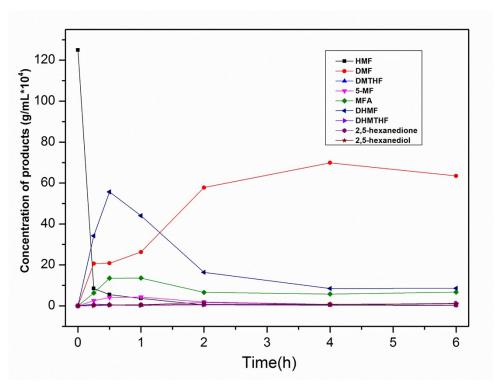


**Fig. S1** NH $_3$ -temperature-programmed desorption profiles of 5%Ru-20%MoOx/C, 5%Ru-10%MoOx/C, 5%Ru-5%MoOx/C and 5%Ru/C catalysts.

Table S1: the Acidity of of catalysts<sup>a</sup>

Catalysts	Acidity(mmol/g)
5%Ru-20%MoOx/C	0.73
5%Ru-10%MoOx/C	0.68
5%Ru-5%MoOx/C	0.57
5%Ru /C	0.33

<sup>&</sup>lt;sup>a</sup> NH<sub>3</sub>-TPD technique (total acidic amount)



**Fig. S2** Effect of the concentration of products with time. Reaction condition: 120 °C, HMF 0.5 g, n-butyl alcohol 40 ml, 5%Ru-10%MoOx/C catalyst 0.1 g.