

Supporting information

The role of oxophilic Mo species in Pt/MgO catalyst as extremely active sites for enhanced hydrodeoxygenation of dibenzofuran

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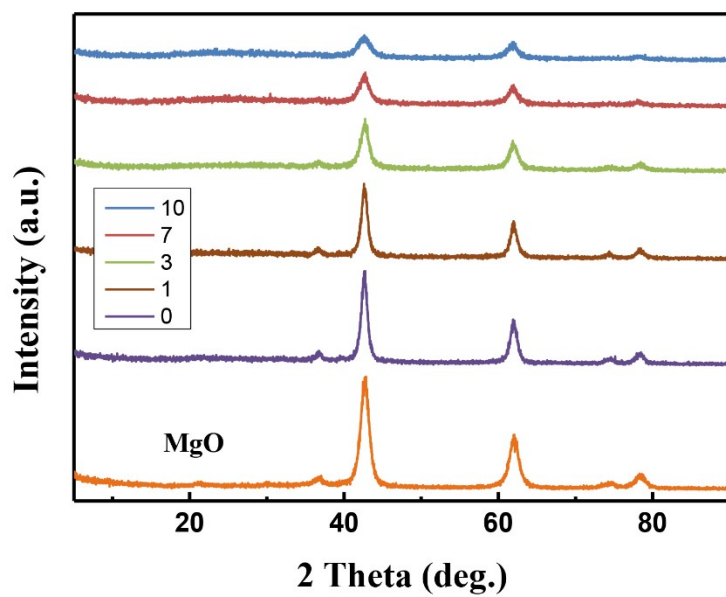


Fig. S1 XRD diffraction patterns for the Pt/nMoO_x/MgO (n = 0, 1, 3, 7, 10) catalysts reduced at 400 °C for 2 h under H₂ flow.

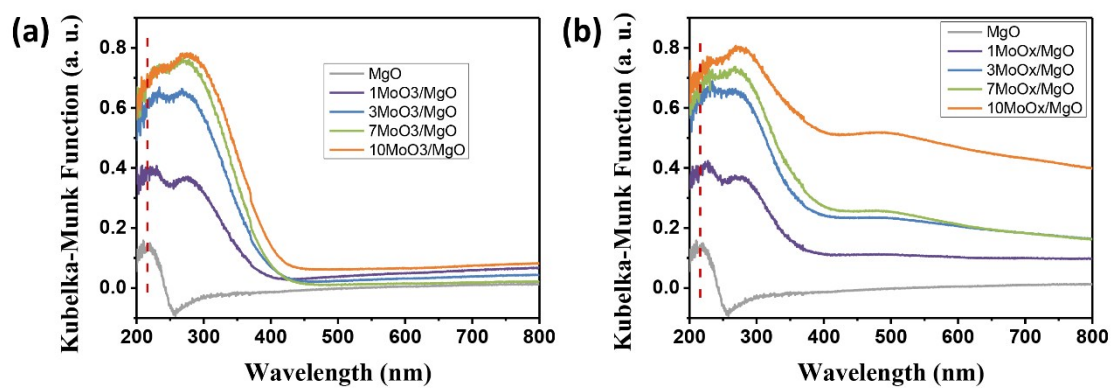


Fig. S2 The UV-vis DRS spectra of the MoO_x/MgO supports at oxidation states (a) and reduction states (b).

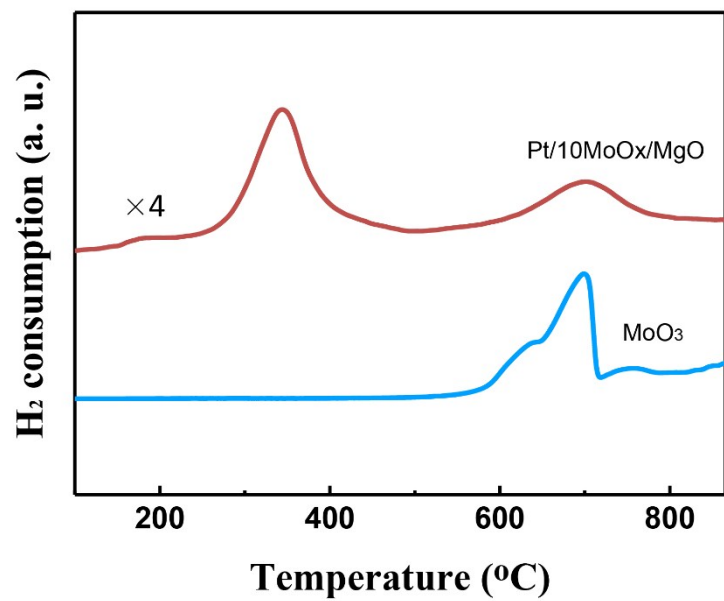


Fig. S3 H₂-TPR of calcined Pt/10MoO_x/MgO and MoO₃.

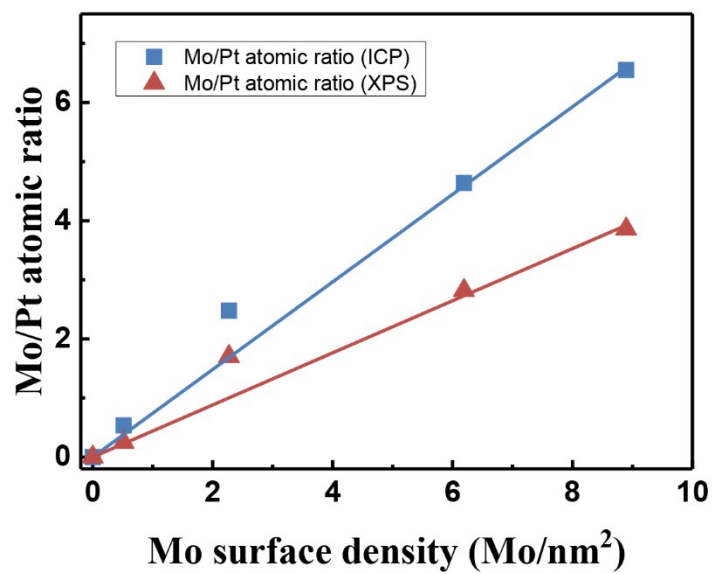


Fig. S4 The Mo/Pt atomic ratios determined by ICP and XPS as a function of the Mo surface density of catalysts.

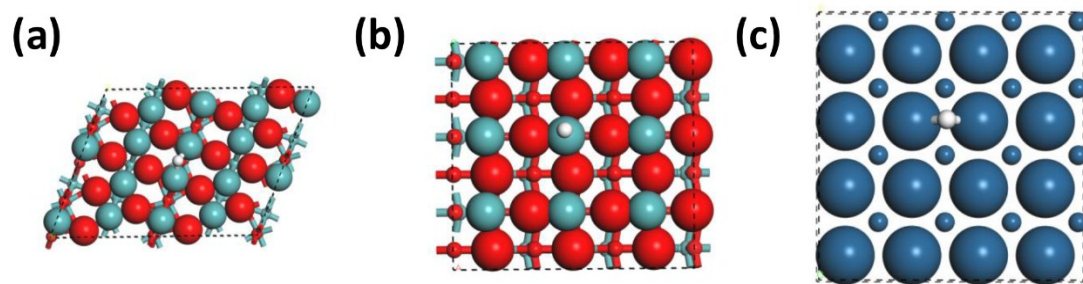


Fig. S5 Adsorption configurations of hydrogen on (a) MoO_2 (011), (b) MoO_3 (010) and (c) Pt (100) surfaces, respectively.

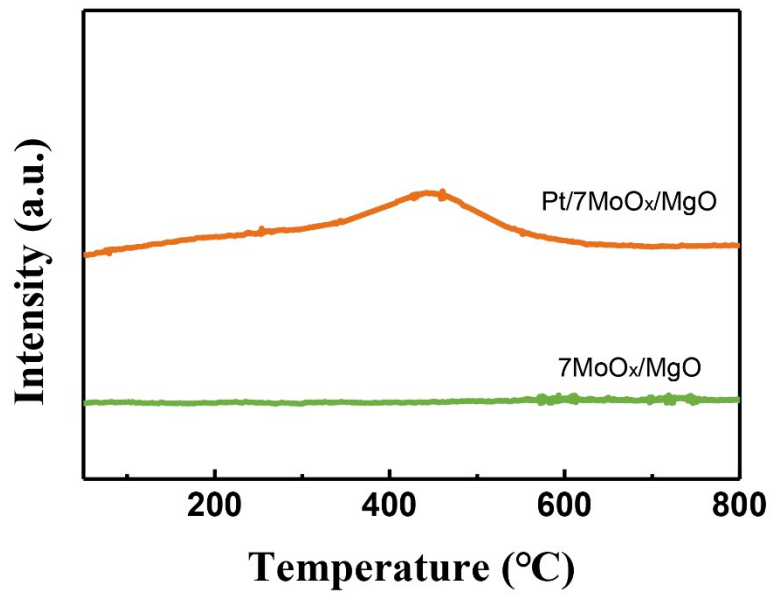


Fig. S6 H₂-TPD of Pt/7MoO_x/MgO and 7MoO_x/MgO catalysts.