

Supporting information

(E)-1-(5-(hydroxymethyl) furan-2-yl)-4,4-dimethylpent-1-en-3-one

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The operating procedure of high-performance liquid chromatography.

The quantitative determination of HMF in the reaction mixtures was conducted using an Agilent HPLC system, equipped with an AQ-C18 5 μm (4.6x250 mm) reverse-phase column and a UV detector for HMF detection. The HPLC parameters were set as follows: a 20 μL injection volume, a mobile phase of 80% deionized water and 20% methanol (HPLC grade), a flow rate of 0.6 mL/min, a column temperature of 25 $^{\circ}\text{C}$, and a detection wavelength of 254 nm. Samples were filtered prior to analysis using a 1 mL syringe filter.

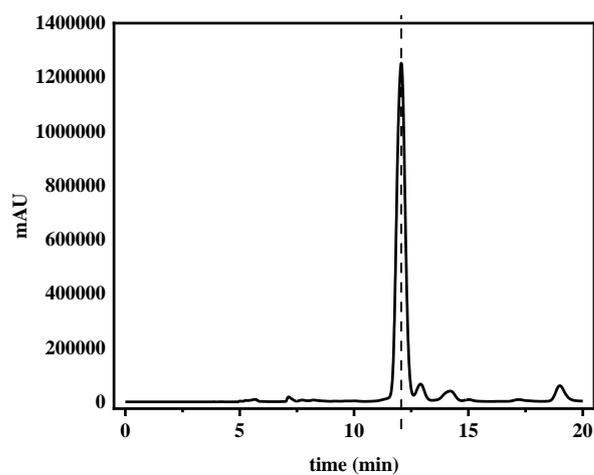


Figure S1 HPLC profiles of 5-hydroxymethylfurfural

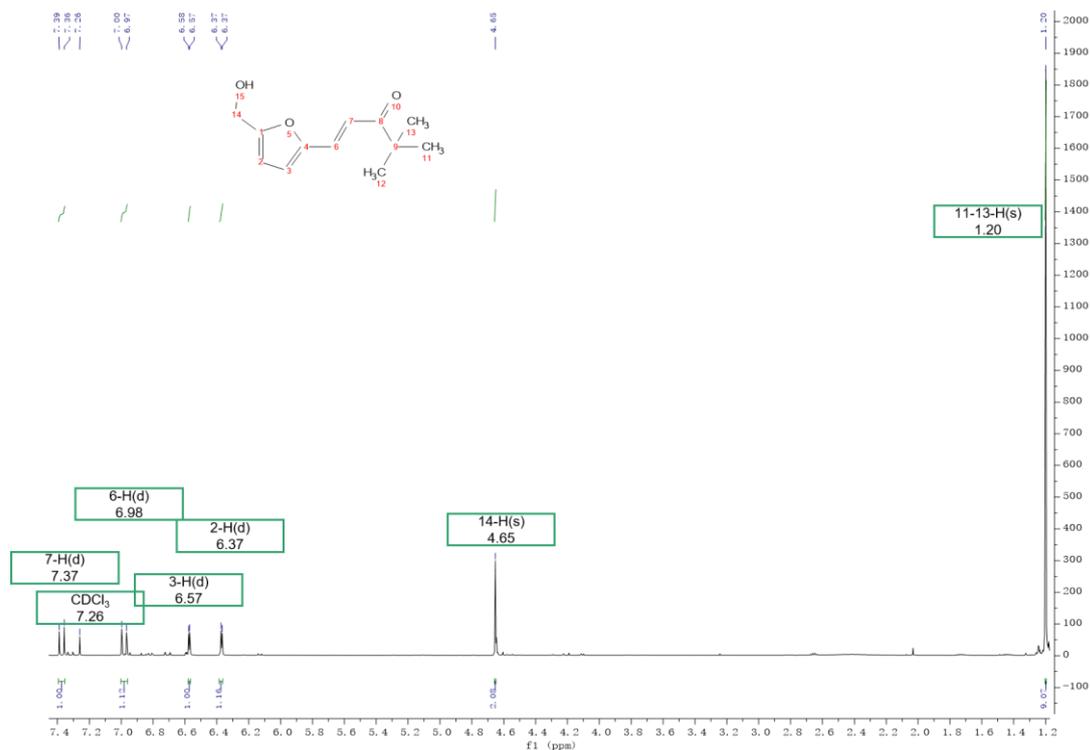


Figure S2 (E)-1-(5-(hydroxymethyl) furan-2-yl)-4,4-dimethylpent-1-en-3-one Nuclear magnetic hydrogen spectrum

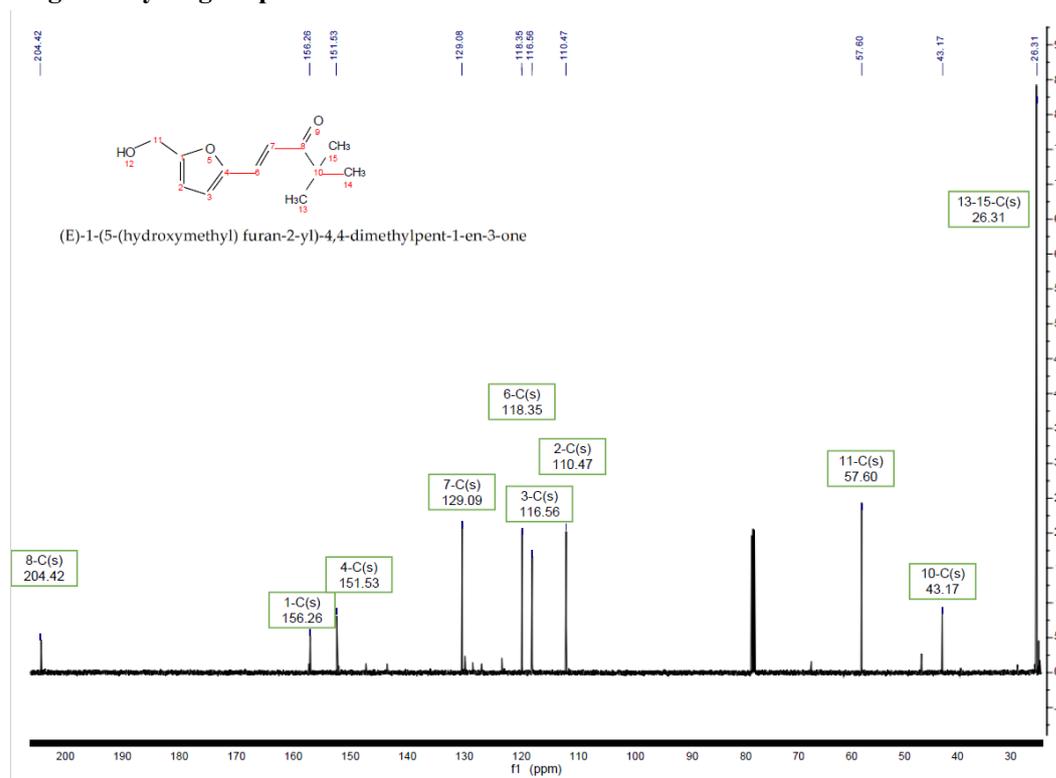


Figure S3 (E)-1-(5-(hydroxymethyl) furan-2-yl)-4,4-dimethylpent-1-en-3-one Nuclear magnetic carbon spectrum

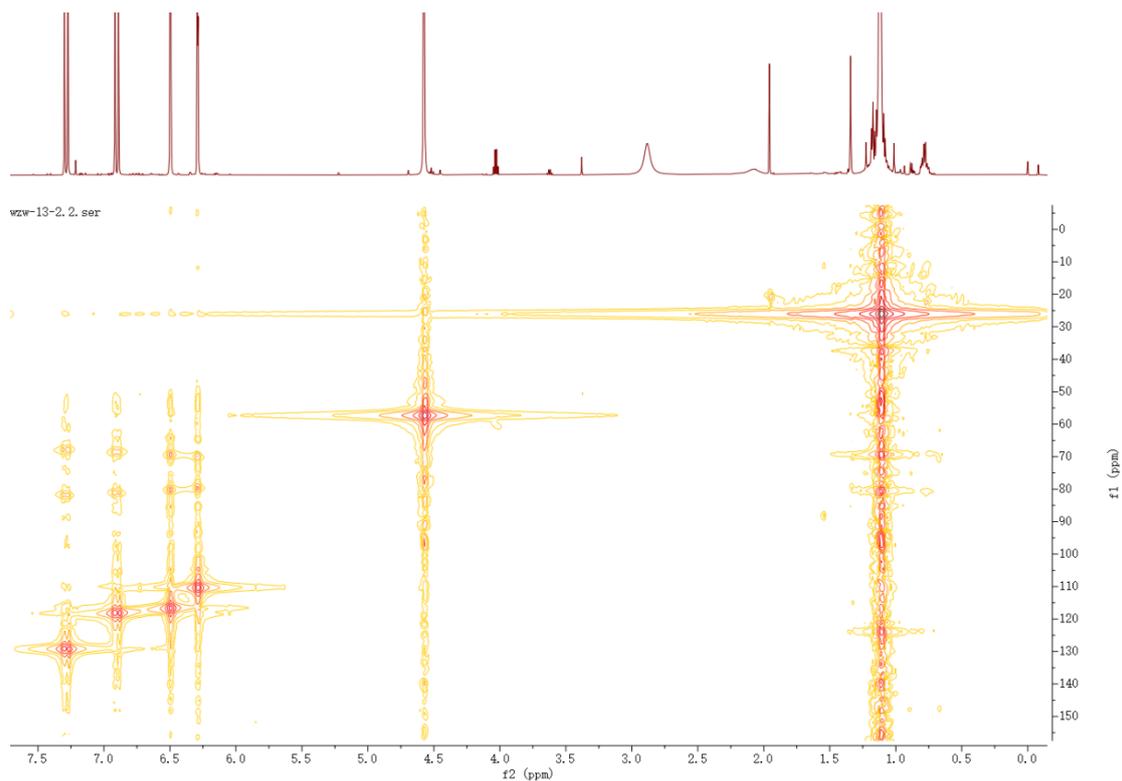


Figure S4 (E)-1-(5-(hydroxymethyl) furan-2-yl)-4,4-dimethylpent-1-en-3-one Nuclear magnetic HMQC spectrum