Supporting Information for

Rapid Determination and Conversion Study of 5-Hydroxymethylfurfural and Its Derivatives in Glucose Injection

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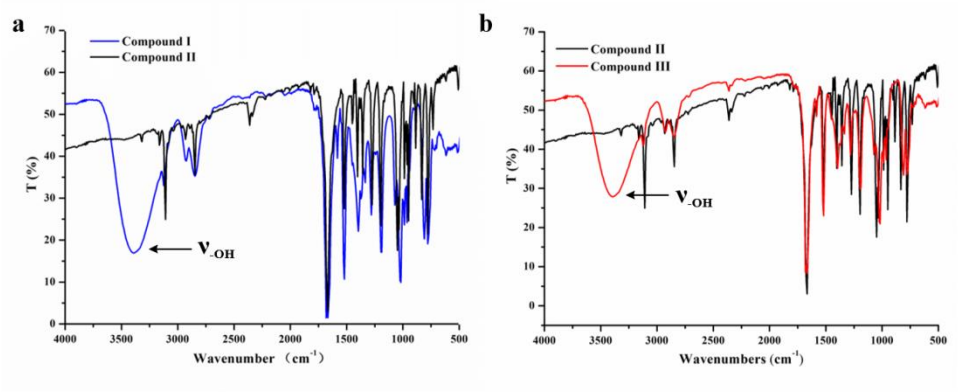
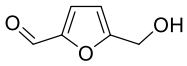


Figure S1. Comparison of typical IR spectra for Compounds I-III.



Chemical Formula: $C_6H_6O_3$
Exact Mass: 126.03
Molecular Weight: 126.11
m/z: 126.03 (100.0%), 127.04 (6.5%)
Elemental Analysis: C, 57.14; H, 4.80; O, 38.06

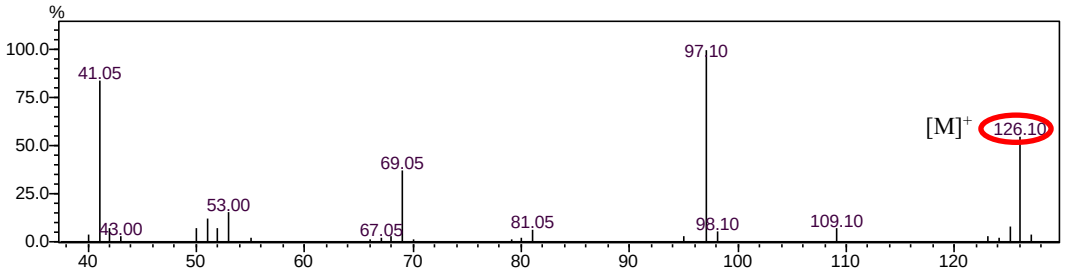
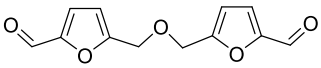


Figure S2. GC-MS data of compound I



Chemical Formula: $C_{12}H_{10}O_5$
Exact Mass: 234.05
Molecular Weight: 234.21
m/z: 234.05 (100.0%), 235.06 (13.0%), 236.06 (1.0%)
Elemental Analysis: C, 61.54; H, 4.30; O, 34.16

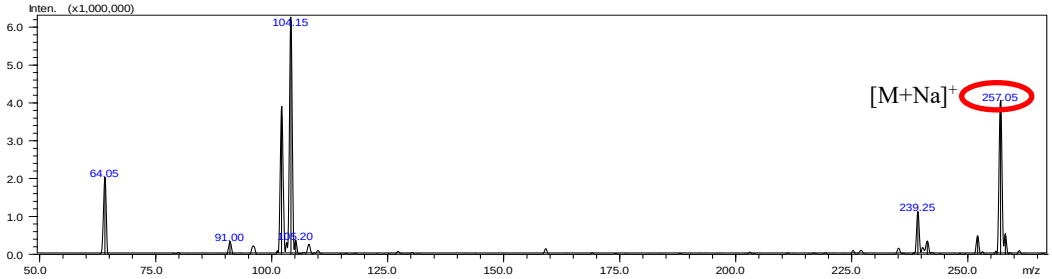
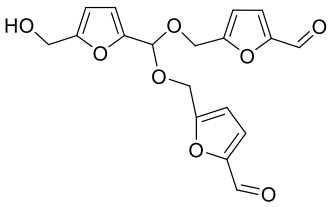


Figure S3. ESI-MS data of compound II



Chemical Formula: $C_{18}H_{16}O_8$
Exact Mass: 360.08
Molecular Weight: 360.32
m/z: 360.08 (100.0%), 361.09 (19.5%), 362.09 (1.8%), 362.09 (1.6%)
Elemental Analysis: C, 60.00; H, 4.48; O, 35.52

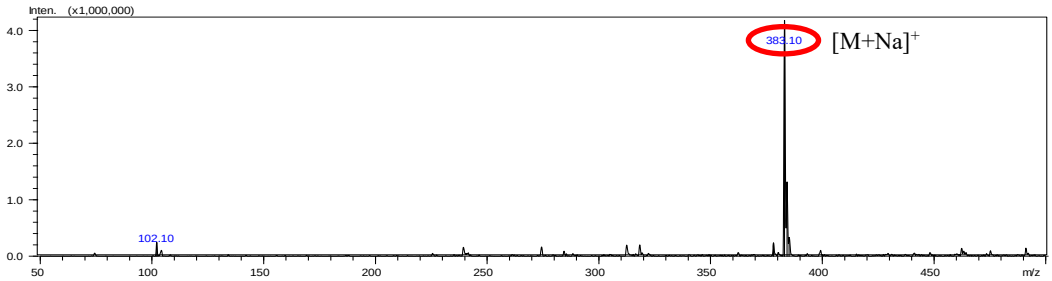


Figure S4. ESI-HRMS data of compound III

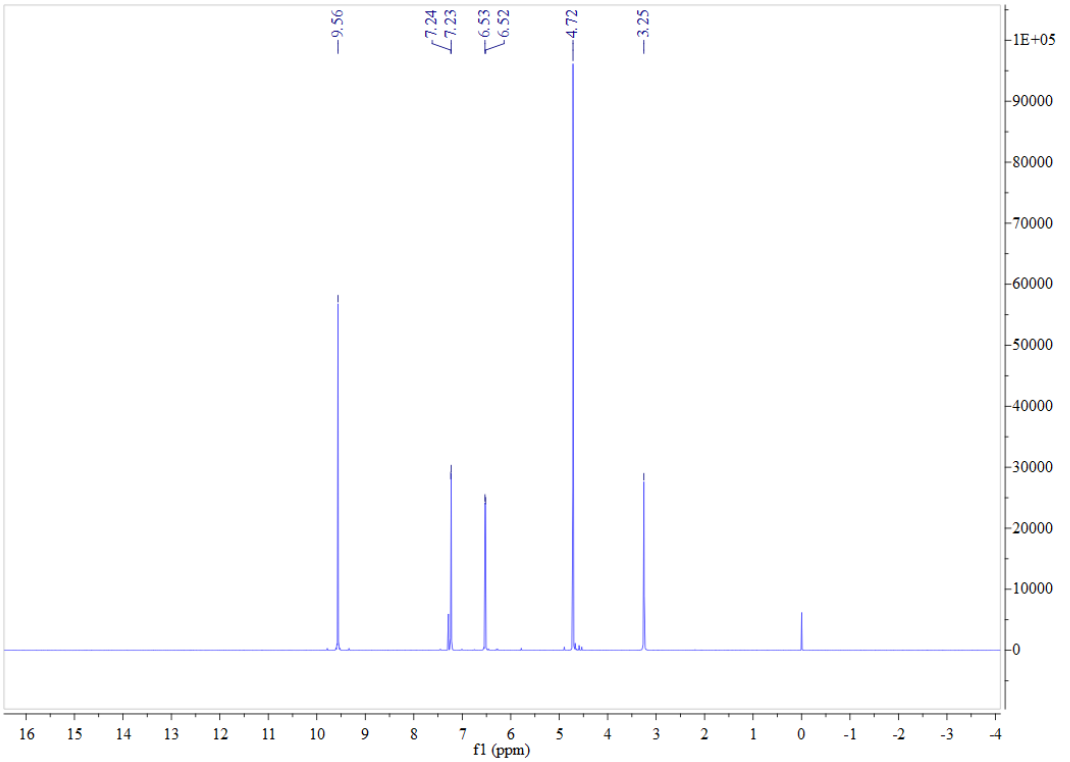


Figure S5. ^{1}H NMR of compound I

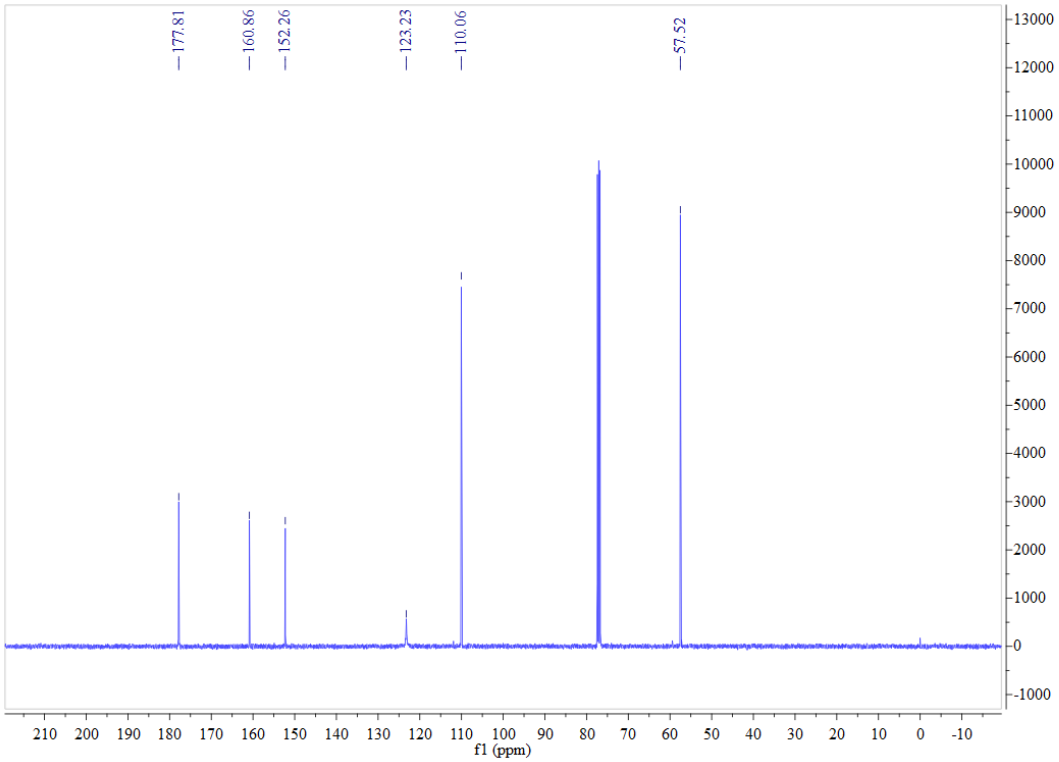


Figure S6. ^{13}C NMR of compound I

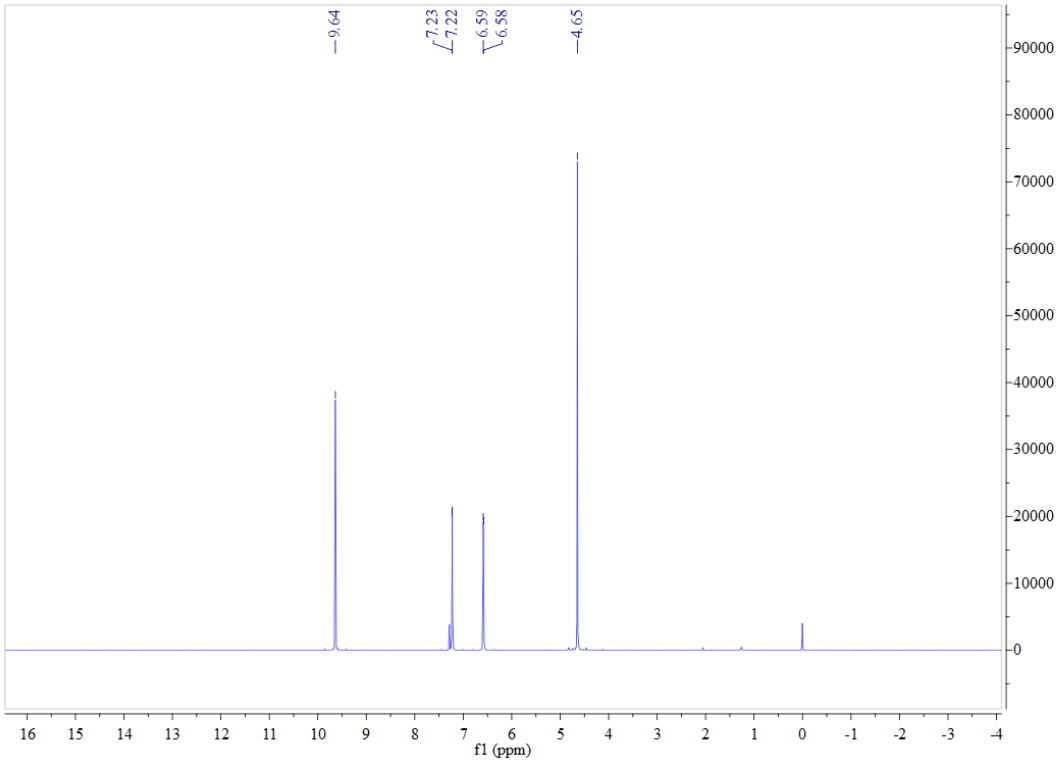


Figure S7. ^{1}H NMR of compound II

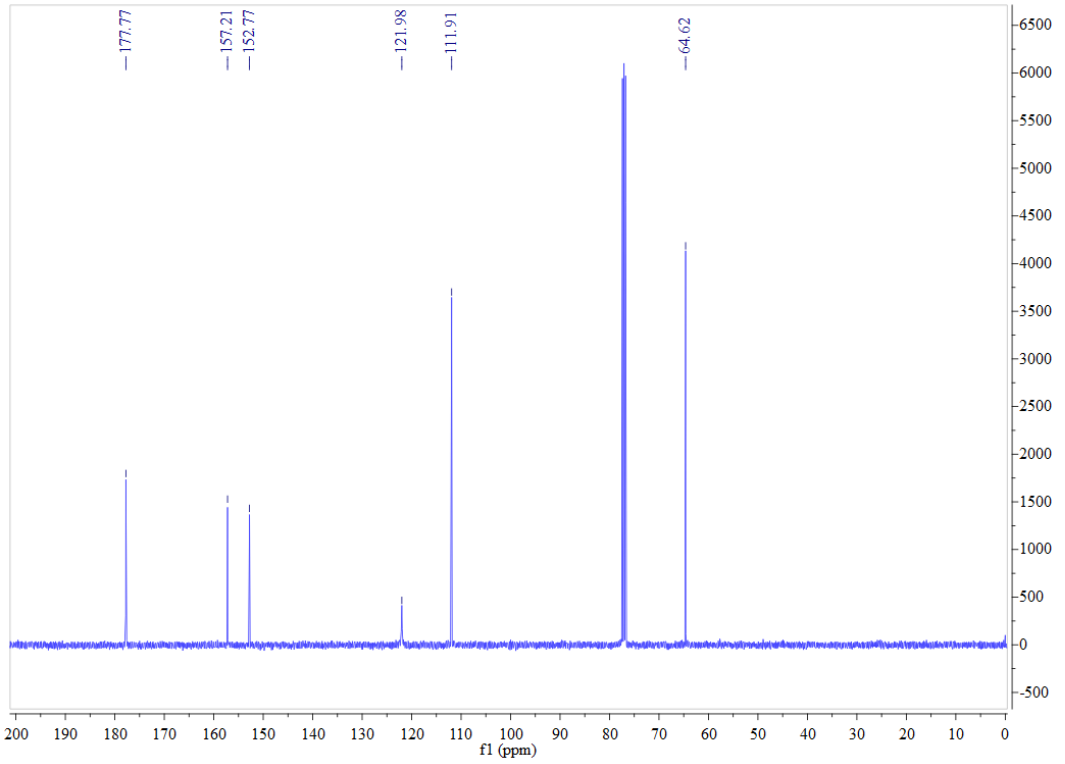


Figure S8. ^{13}C NMR of compound II

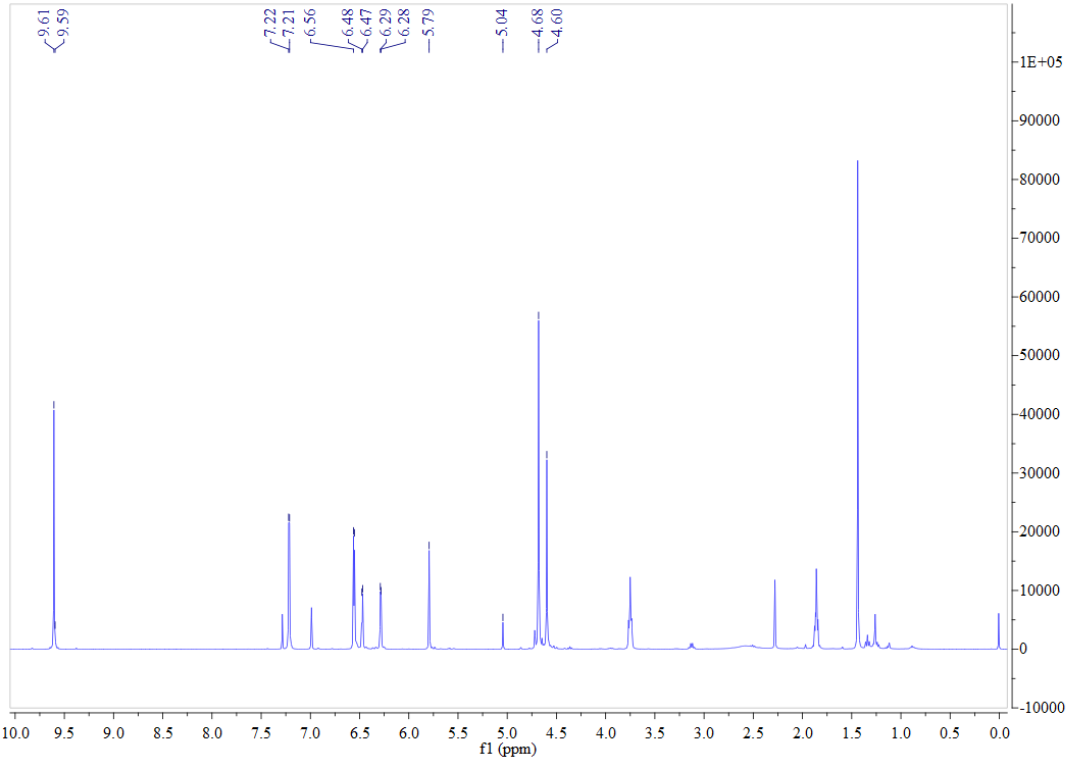


Figure S9. ^{1}H NMR of compound III

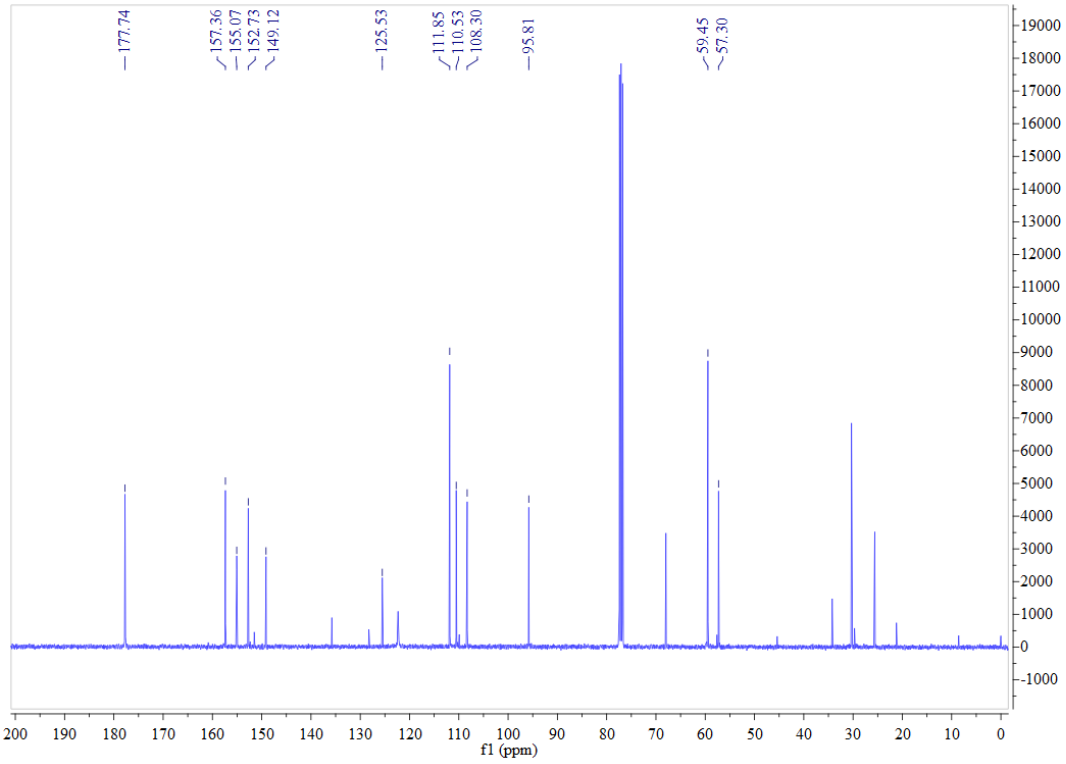


Figure S10. ^{13}C NMR of compound III

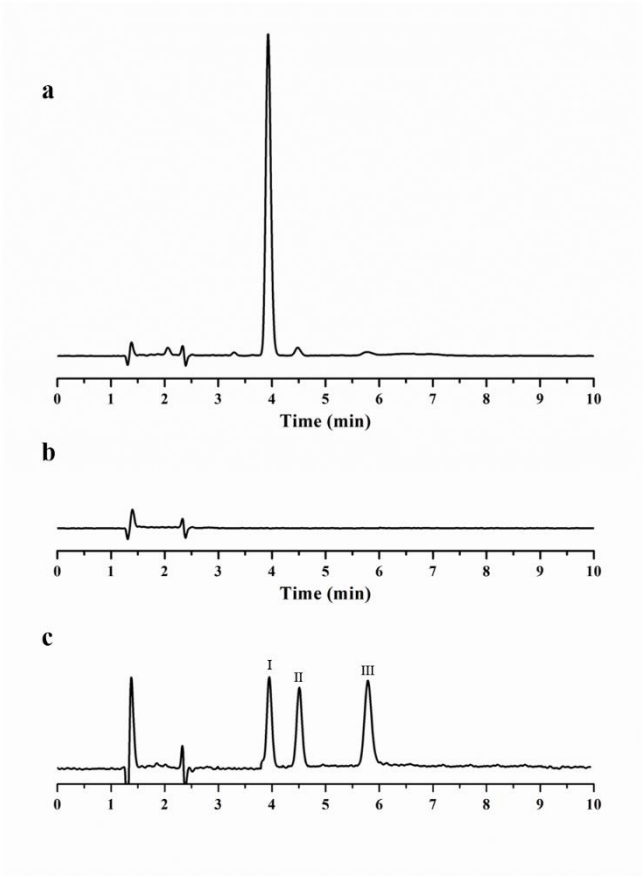


Figure S11. HPLC for sample, control and standard (a: HPLC for glucose injection; b: HPLC for control; c: HPLC for standard compounds.