

Supplementary Materials:

4-Acetyl-2-hydroxy-2,5-dimethylfuran-3(2H)-one

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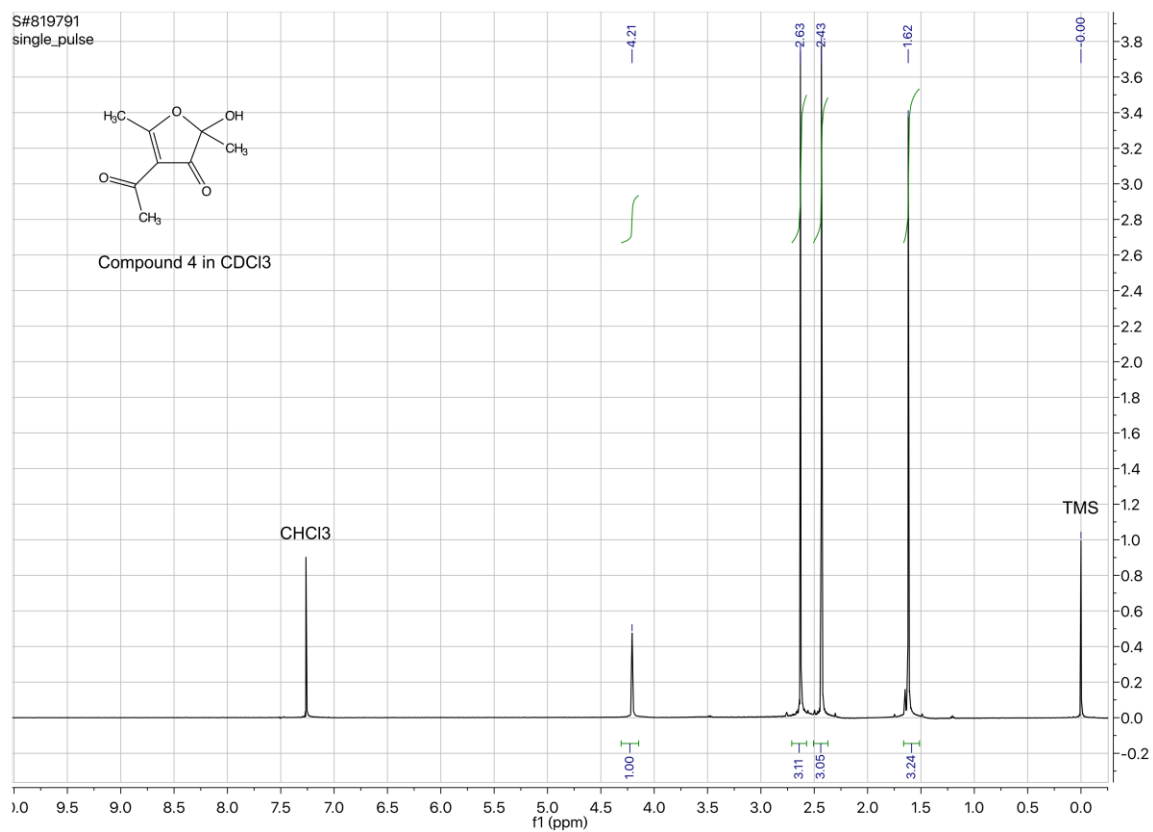
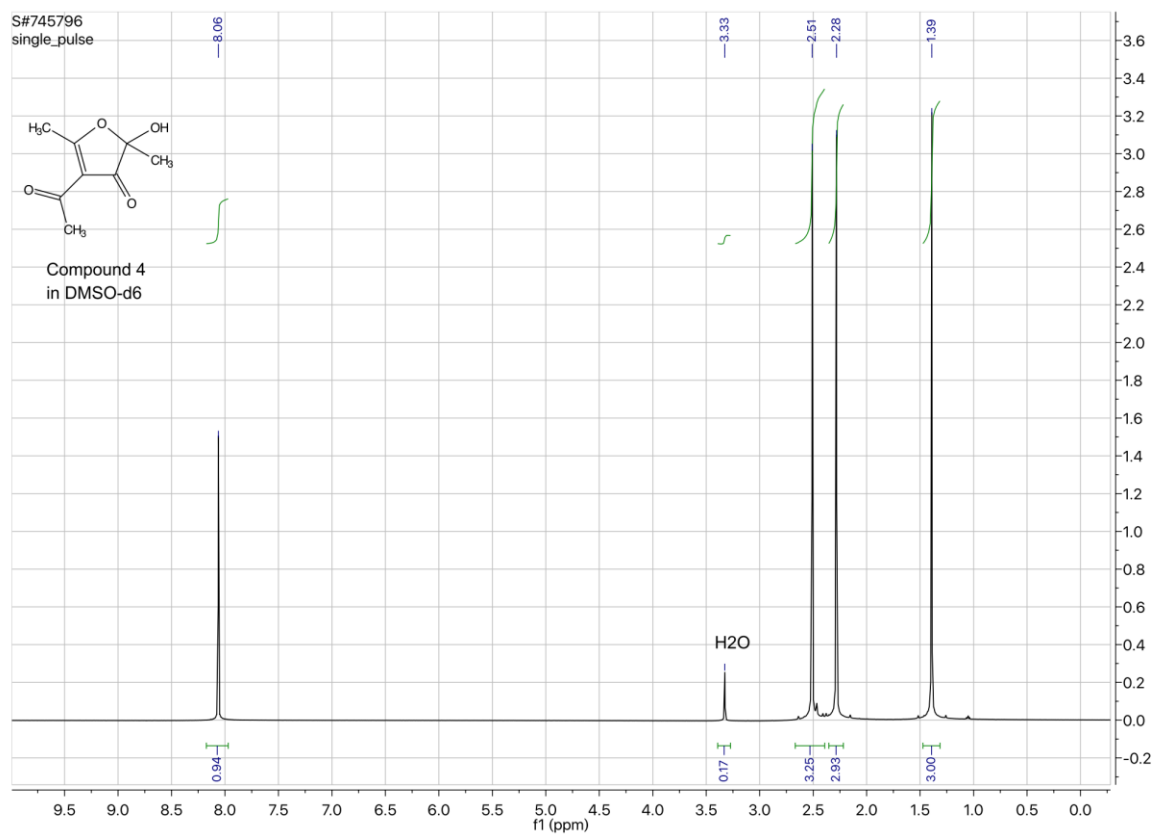
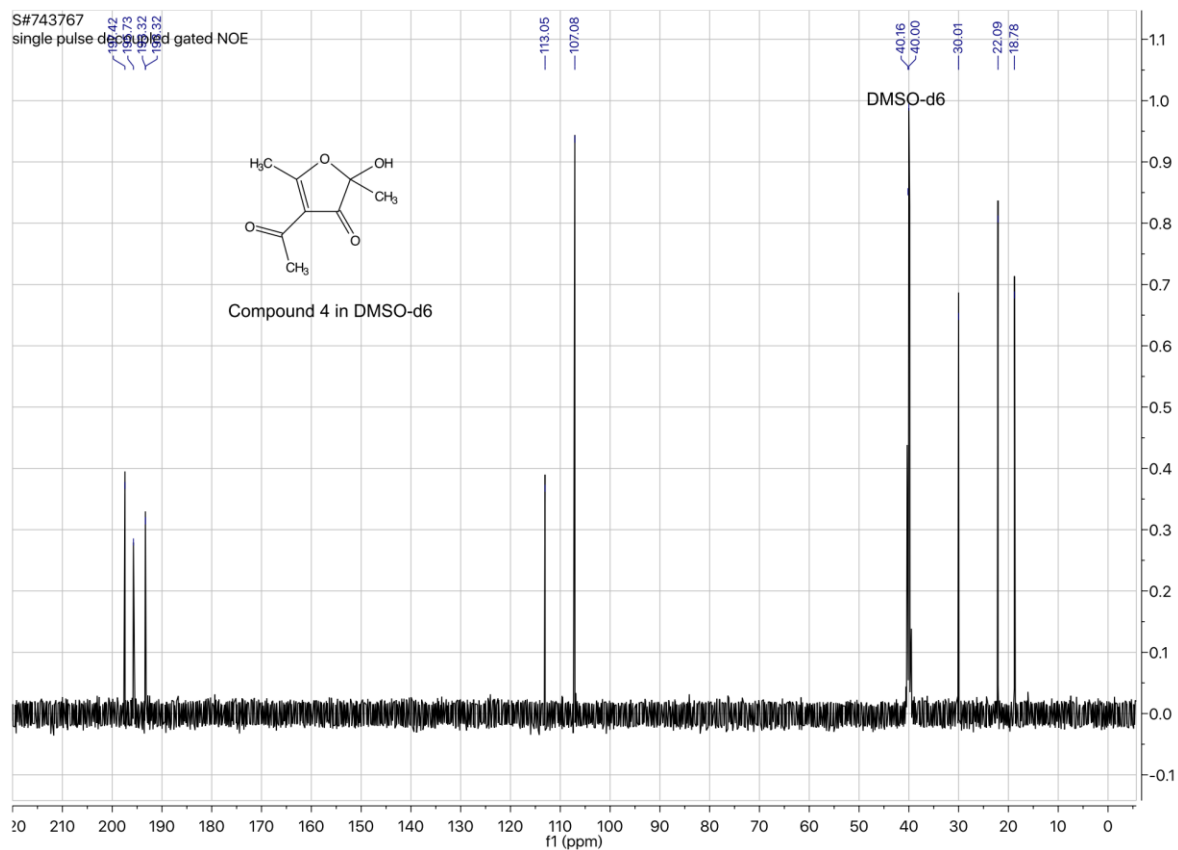
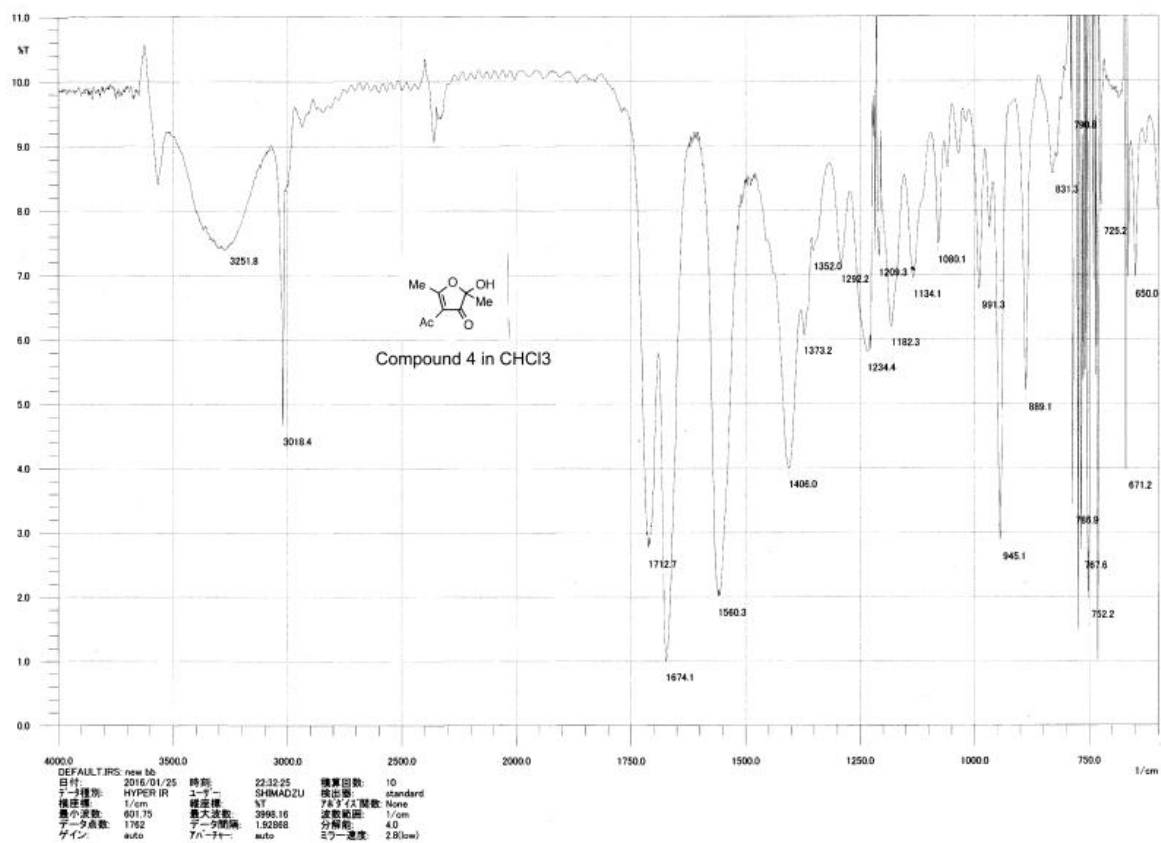
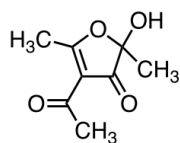


Figure S1. ¹H-NMR Spectrum of Furanone **4** in CDCl₃.

Figure S2. ¹H-NMR Spectrum of Furanone **4** in DMSO-*d*₃.Figure S3. ¹³C-NMR Spectrum of Furanone **4** in DMSO-*d*₃.

Figure S4. IR Spectrum of Furanone 4 in CHCl₃.

4-acetyl-2-hydroxy-2,5-dimethylfuran-3(2*H*)-one (4)Chemical Formula: C₈H₁₀O₄

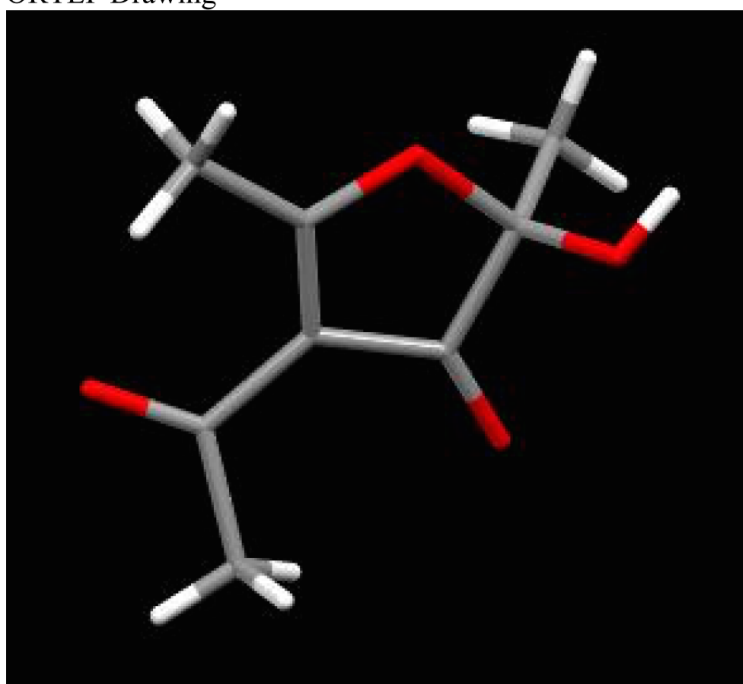
Exact Mass: 170.06

Molecular Weight: 170.16

m/z: 170.06 (100.0%), 171.06 (8.9%), 172.06 (1.1%)

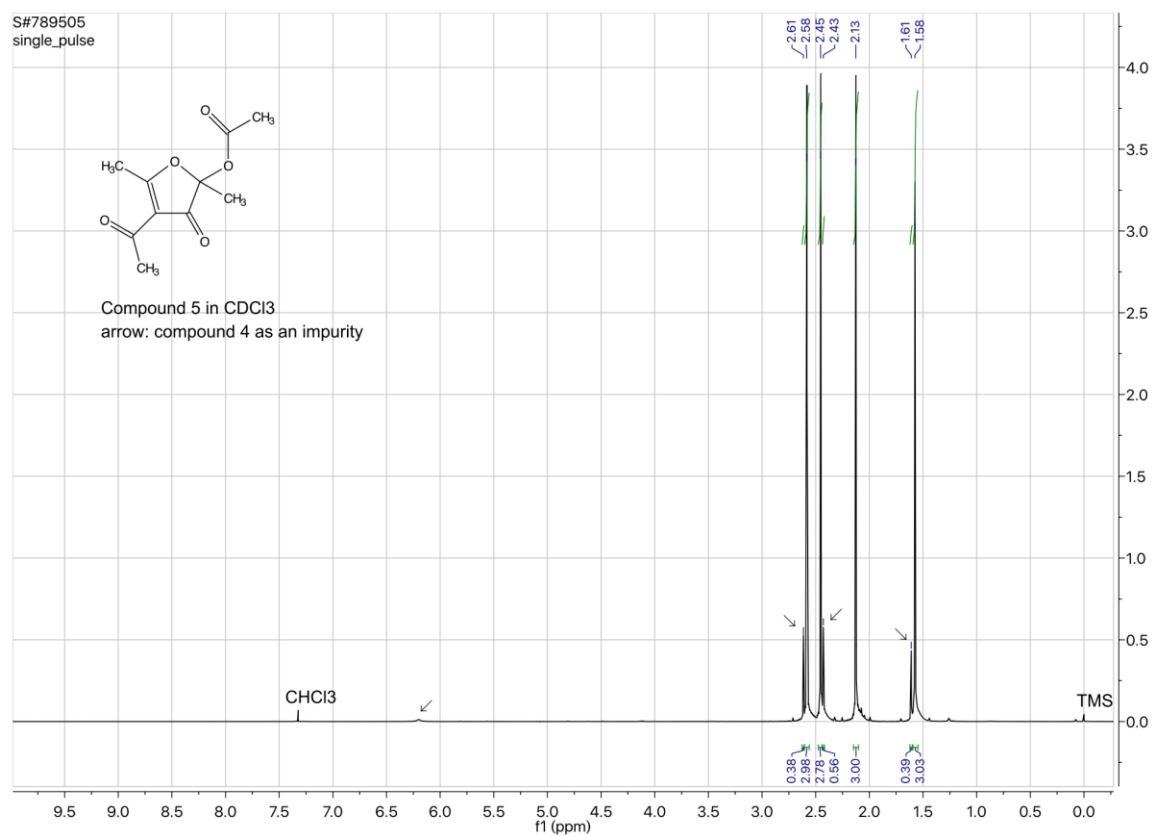
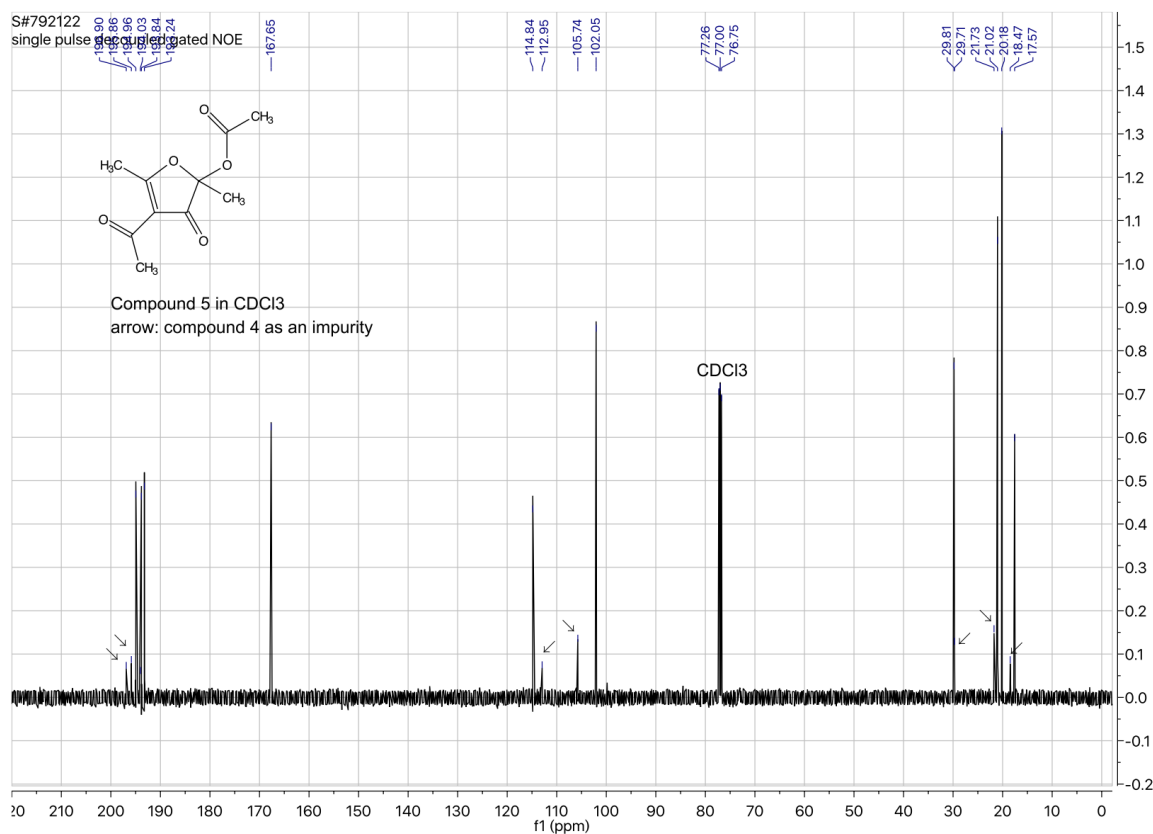
Elemental Analysis: C, 56.47; H, 5.92; O, 37.61

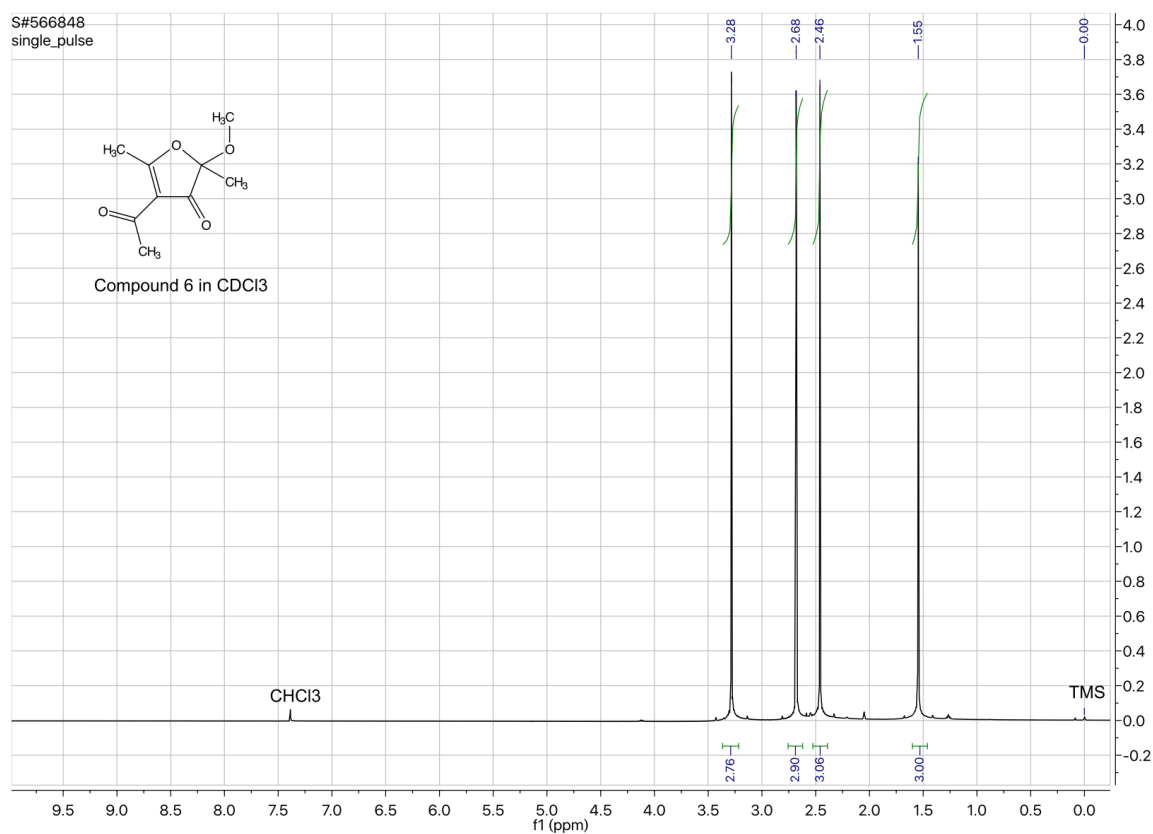
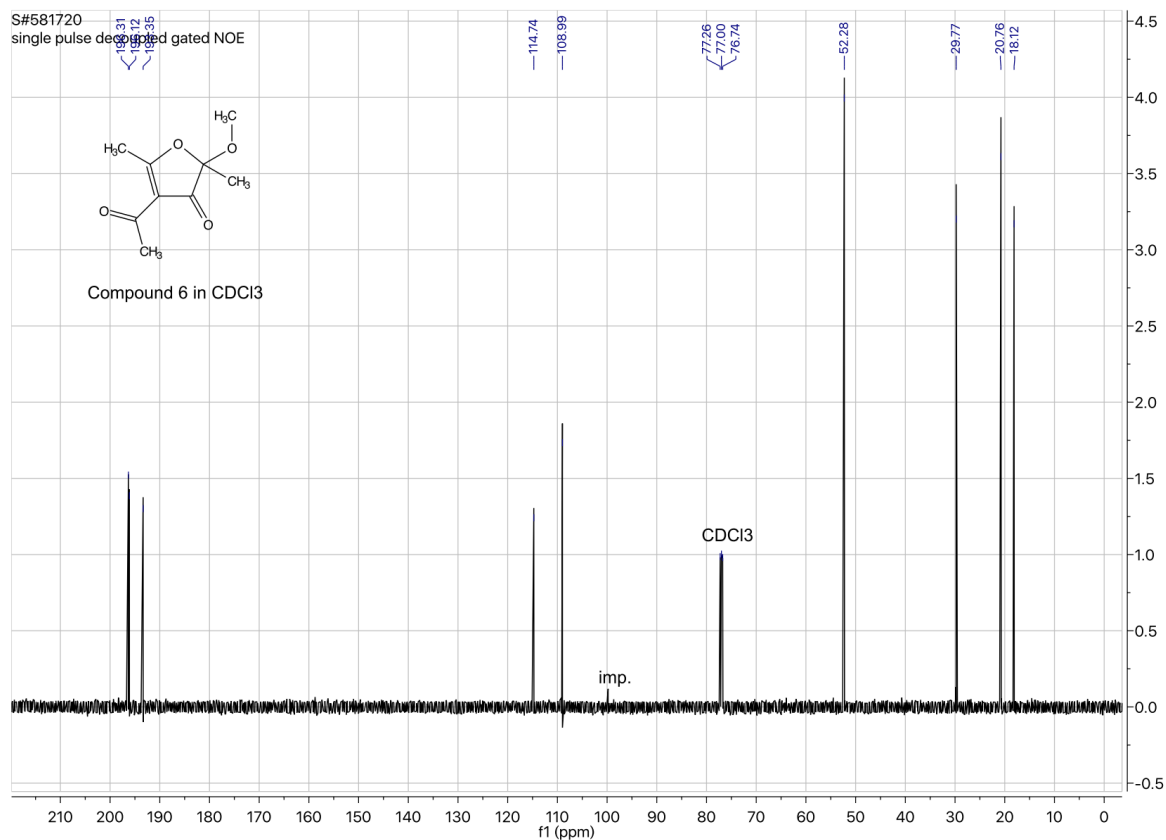
ORTEP Drawing

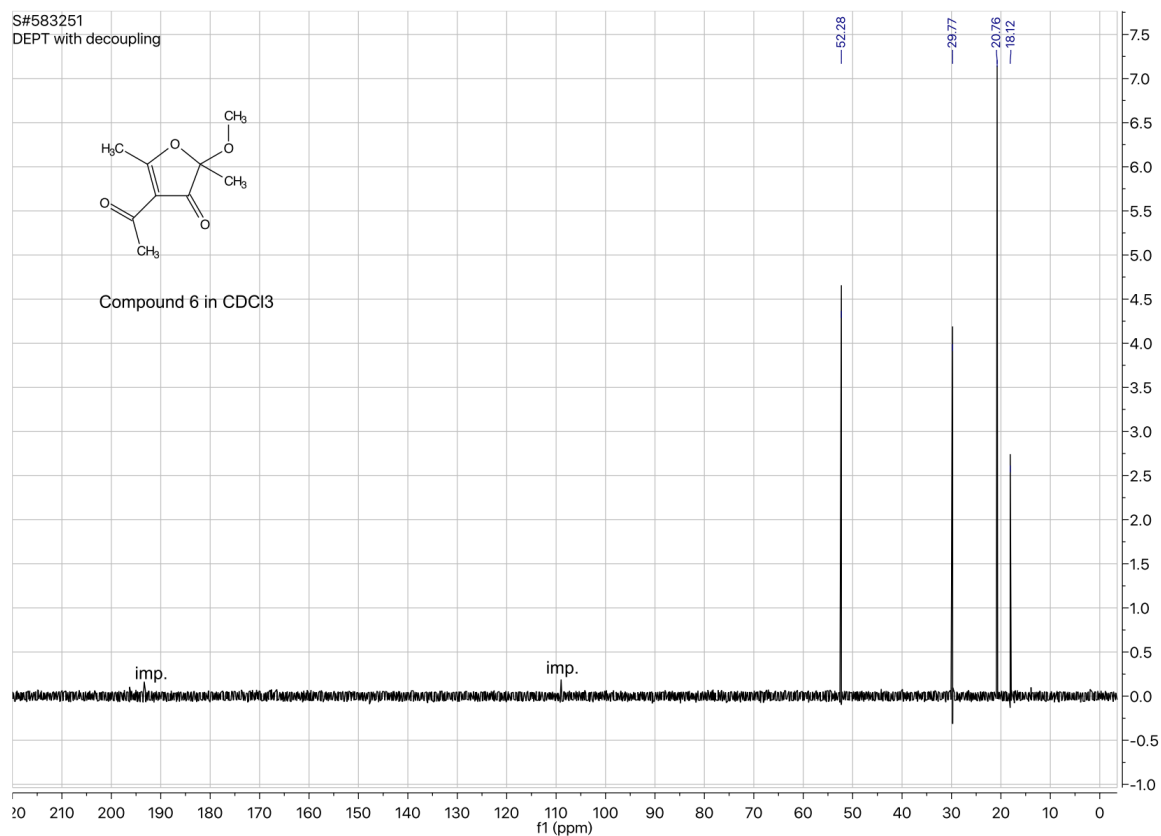
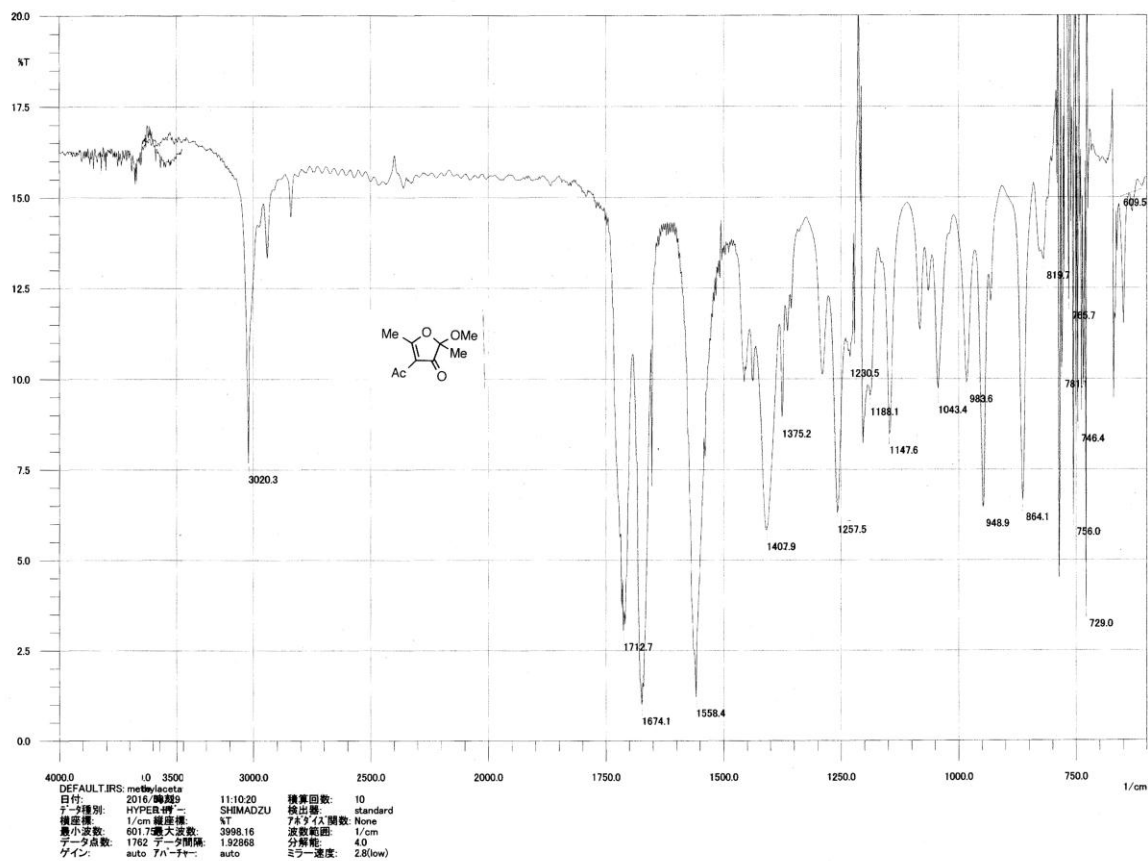


Formula	C ₈ H ₁₀ O ₄
Space Group	P 2 ₁ /c
Cell Lengths	<i>a</i> = 8.13551(9) Å <i>b</i> = 12.91881(9) Å <i>c</i> = 8.38084(9) Å
Cell Angles	α = 90.00° β = 114.5940(13)° γ = 90.00°
Cell Volume	800.926
Z, Z'	Z = 4, Z' = 0
<i>R</i>	0.034
<i>R_w</i>	0.0860
GOF	1.053

Figure S5. X-ray Crystal Structure of Furanone 4.

Figure S6. ¹H-NMR Spectrum of Acetoxy-acetal **5** in CDCl₃.Figure S7. ¹³C-NMR Spectrum of Acetoxy-acetal **5** in CDCl₃.

Figure S8. ¹H-NMR Spectrum of Methoxy-acetal **6** in CDCl₃.Figure S8. ¹³C-NMR Spectrum of Methoxy-acetal **6** in CDCl₃.

Figure S10. DEPT 135 Spectrum of Methoxy-acetal 6 in CDCl₃.Figure S11. IR Spectrum of Methoxy-acetal 6 in CHCl₃.

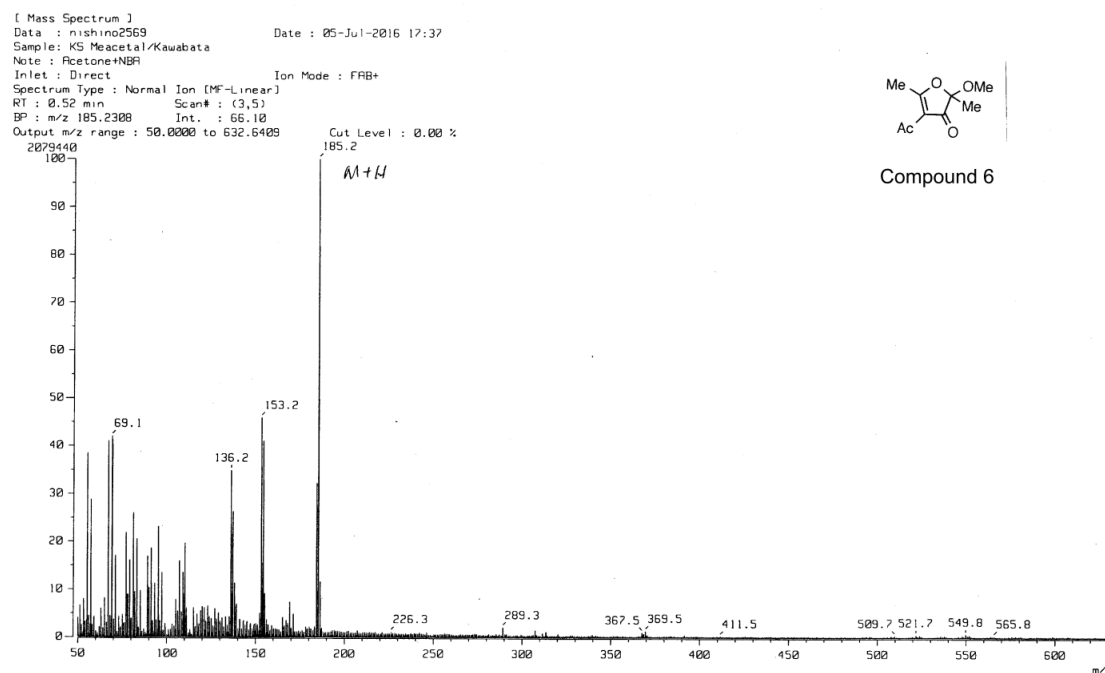


Figure S12. FAB MS Spectrum of Methoxy-acetal 6.