

Supplementary information

Design and Synthesis of Matrine Derivatives as Novel Anti-Pulmonary Fibrotic Agents via Repression of the TGF β /Smad Pathway

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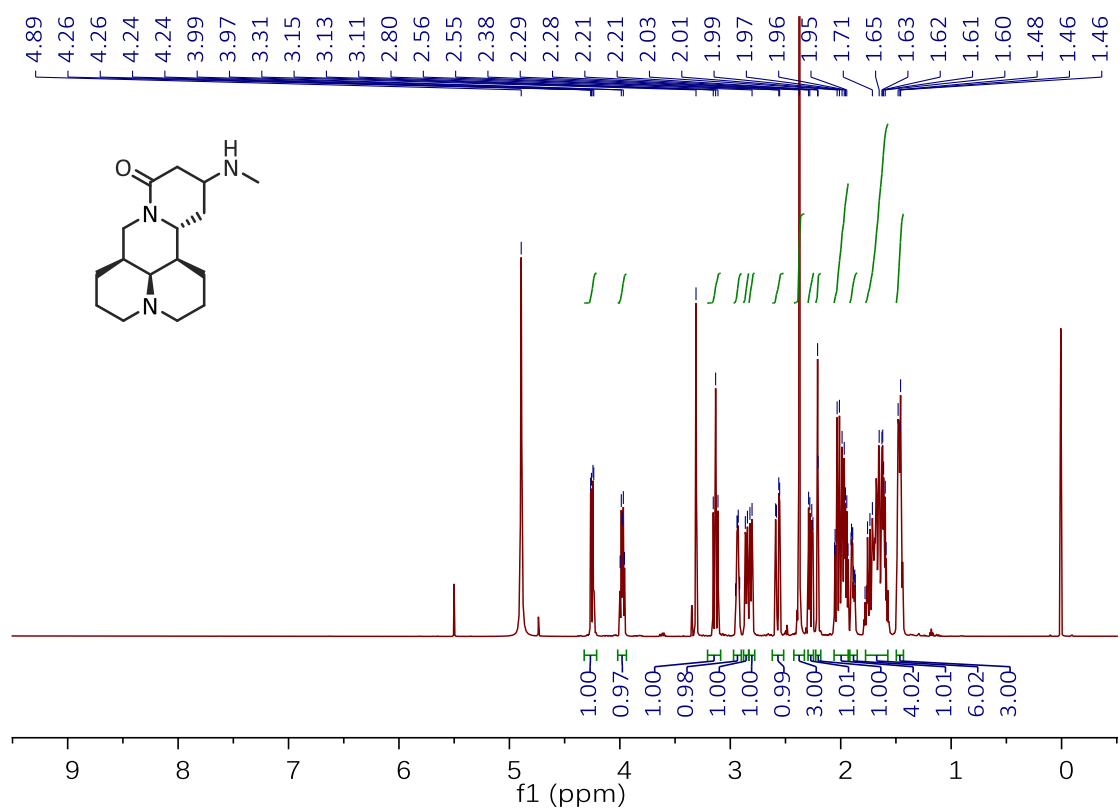
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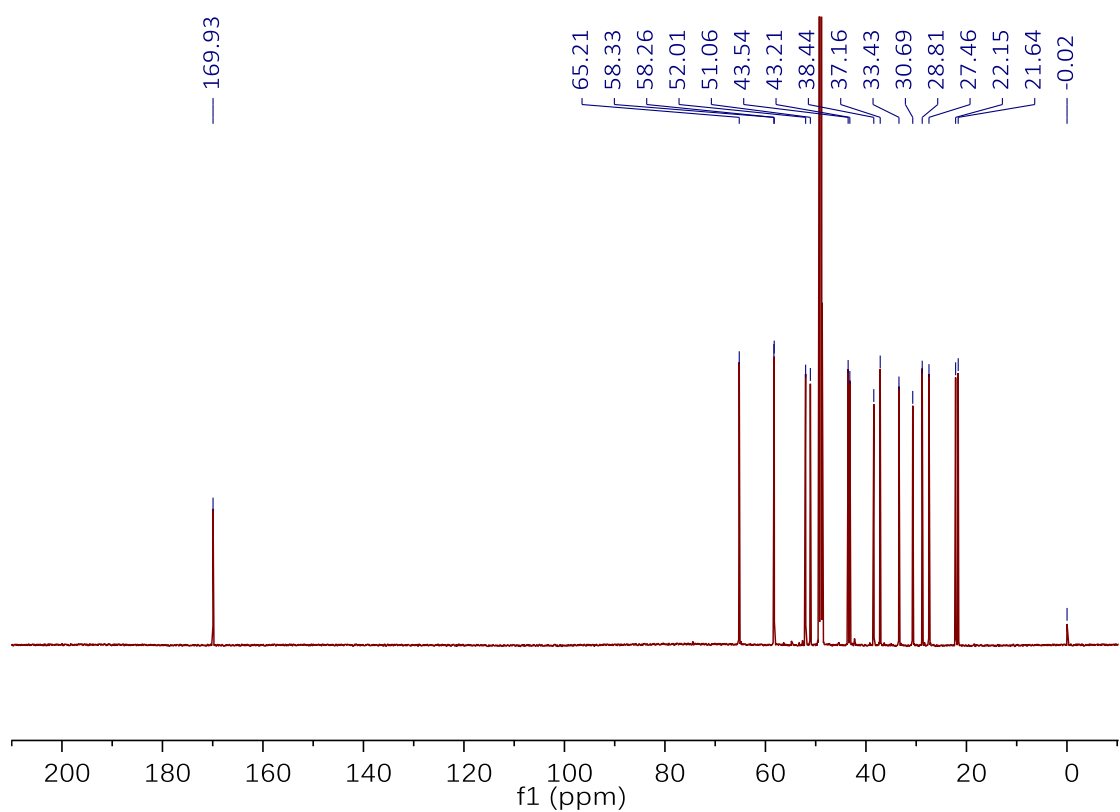
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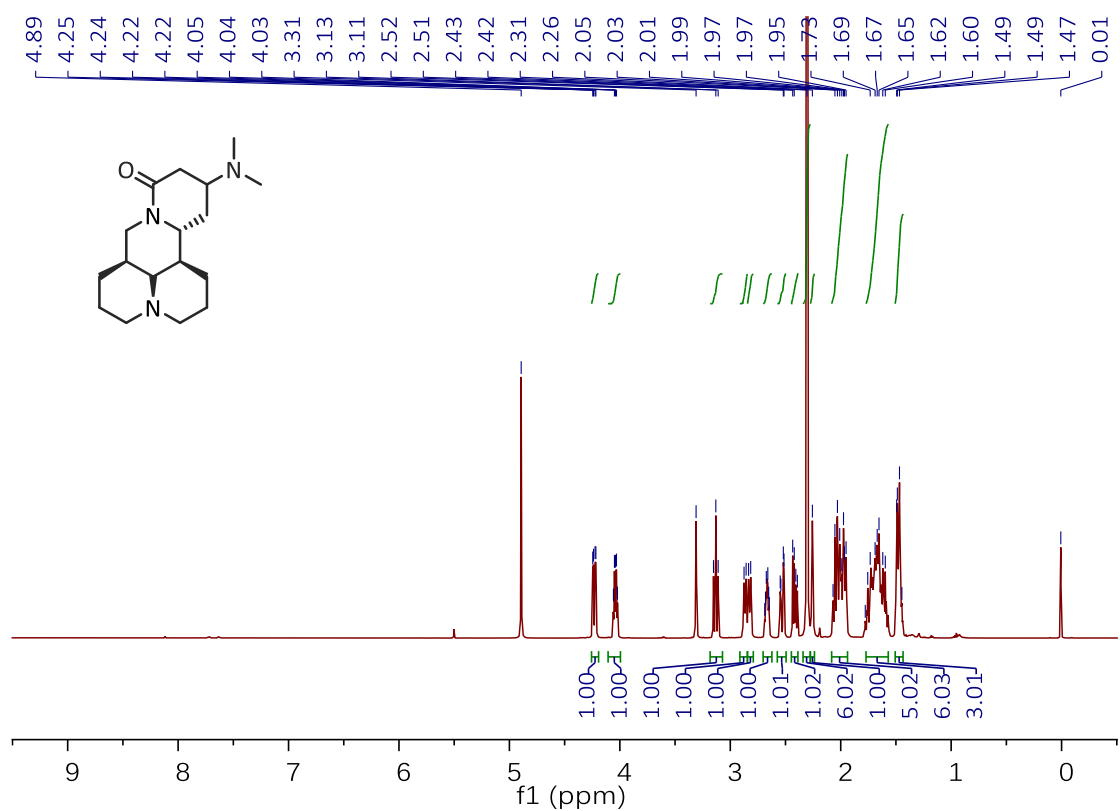
S1-1 ^1H NMR spectrum of 2a (MeOD- d_4 , 600 MHz)



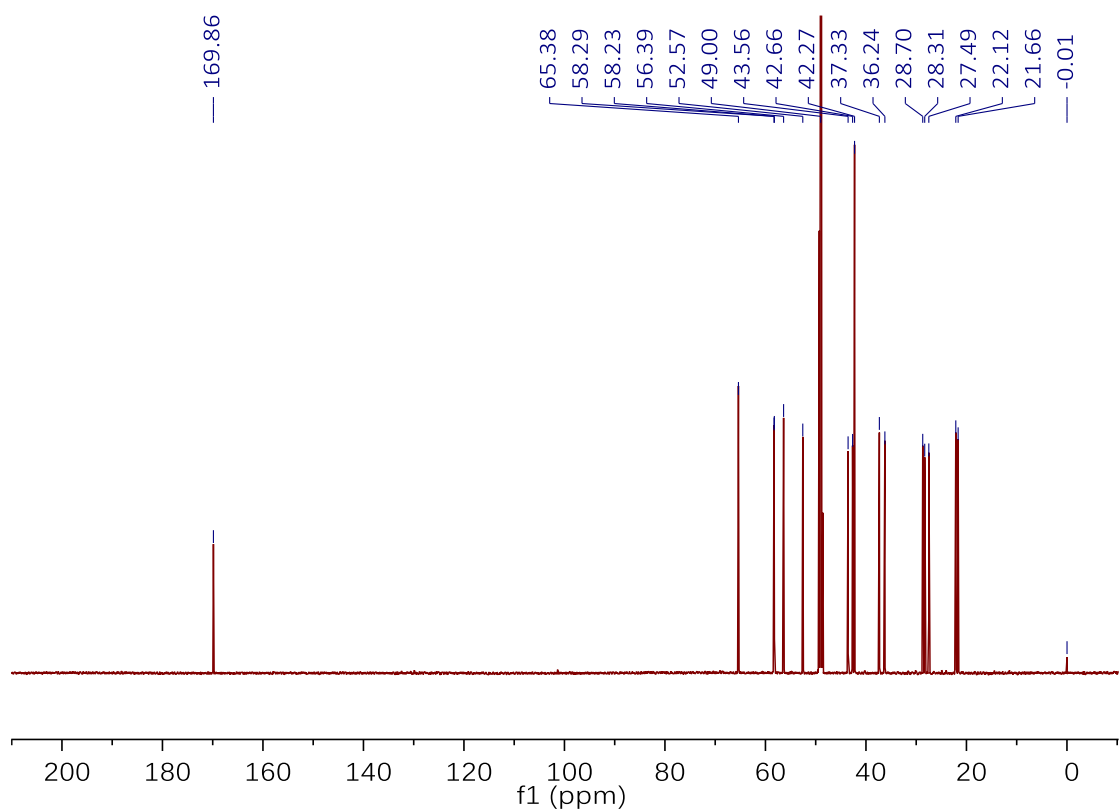
S1-2 ^{13}C NMR spectrum of 2a (MeOD- d_4 , 151 MHz)



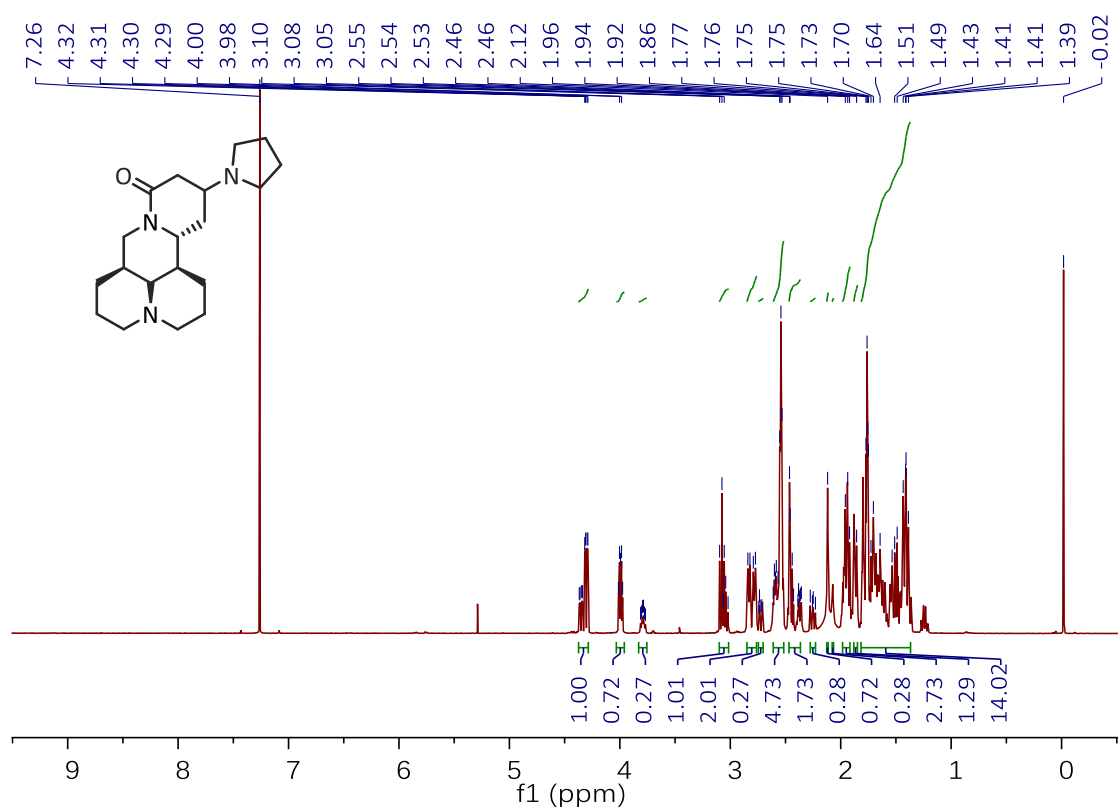
S2-1 ^1H NMR spectrum of 2b (MeOD- d_4 , 600 MHz)



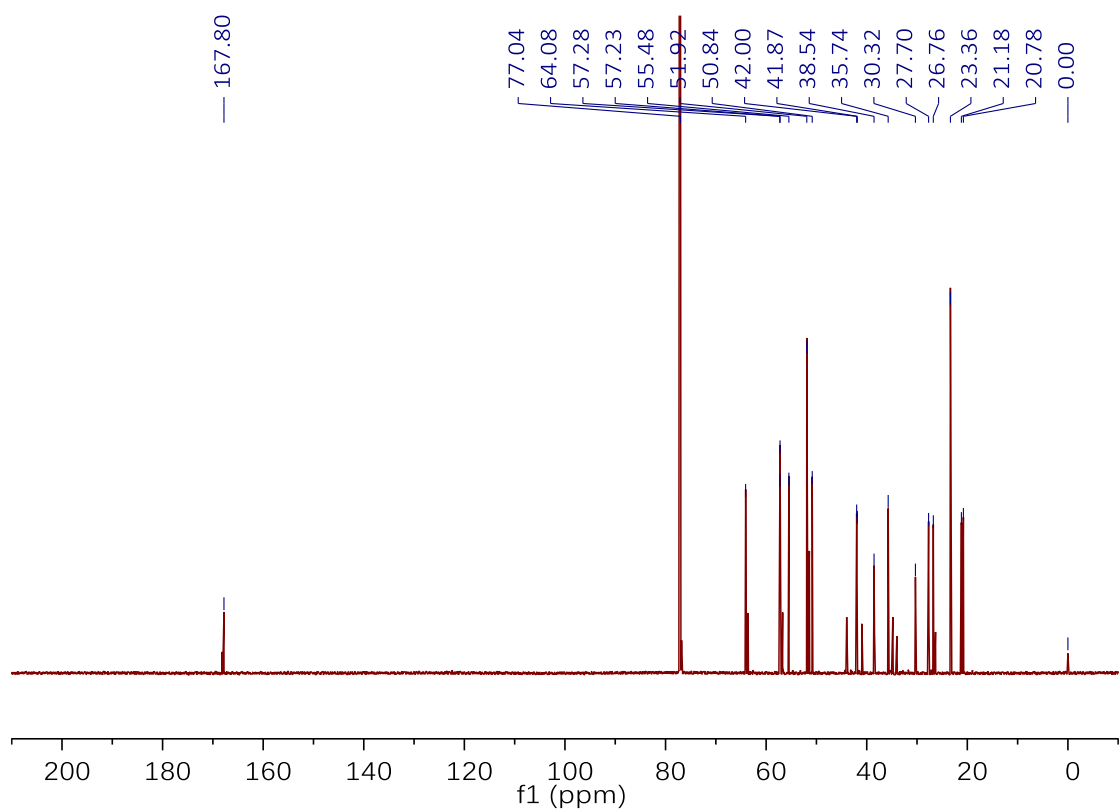
S2-2 ^{13}C NMR spectrum of 2b (MeOD- d_4 , 151 MHz)



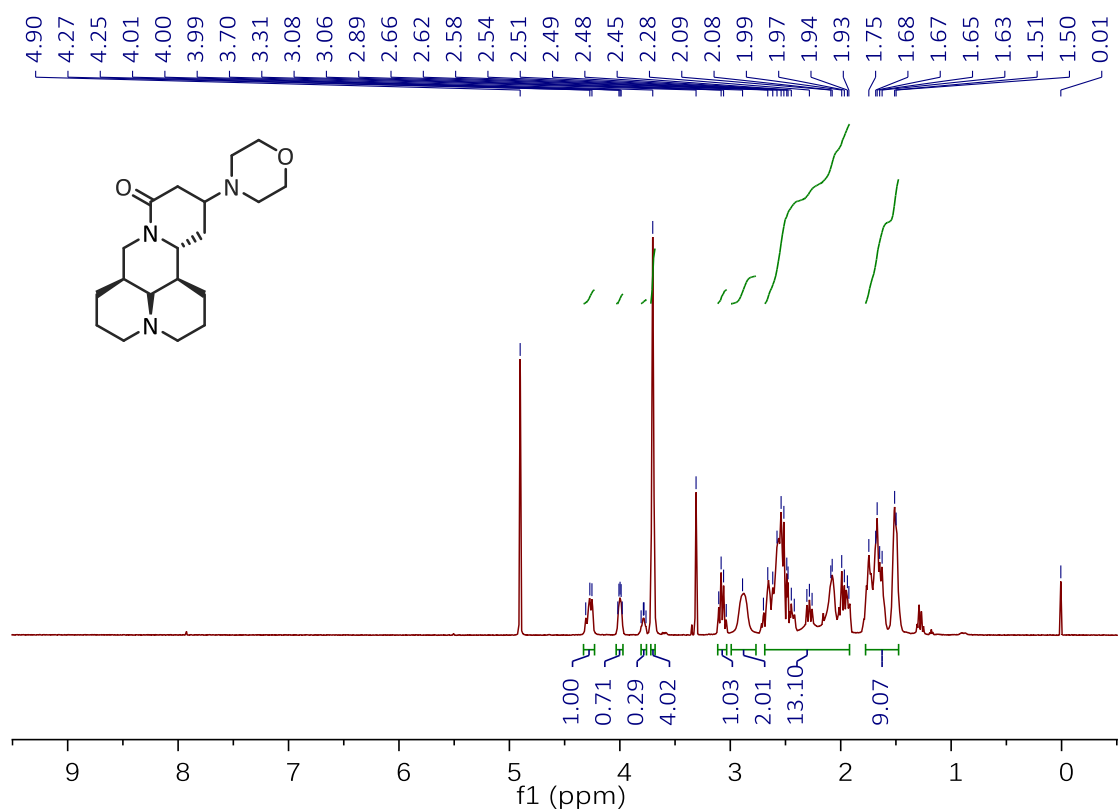
S3-1 ^1H NMR spectrum of 2c (MeOD- d_4 , 600 MHz)



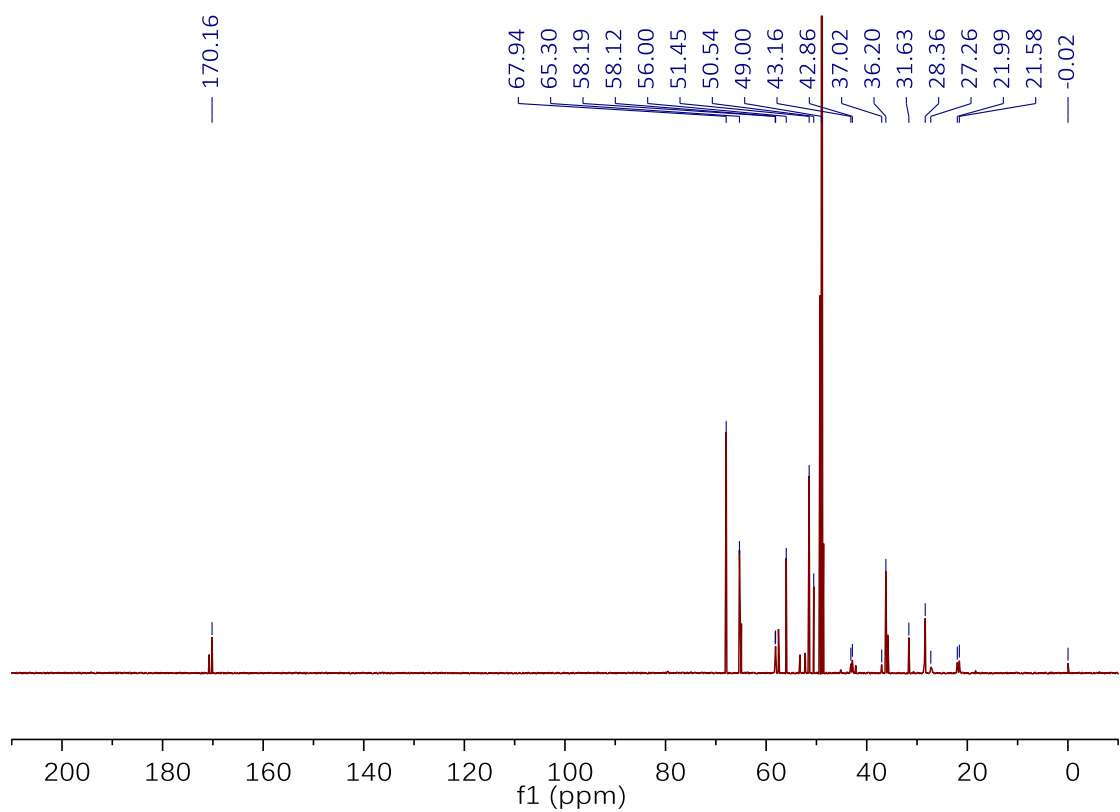
S3-2 ^{13}C NMR spectrum of 2c (MeOD- d_4 , 151 MHz)



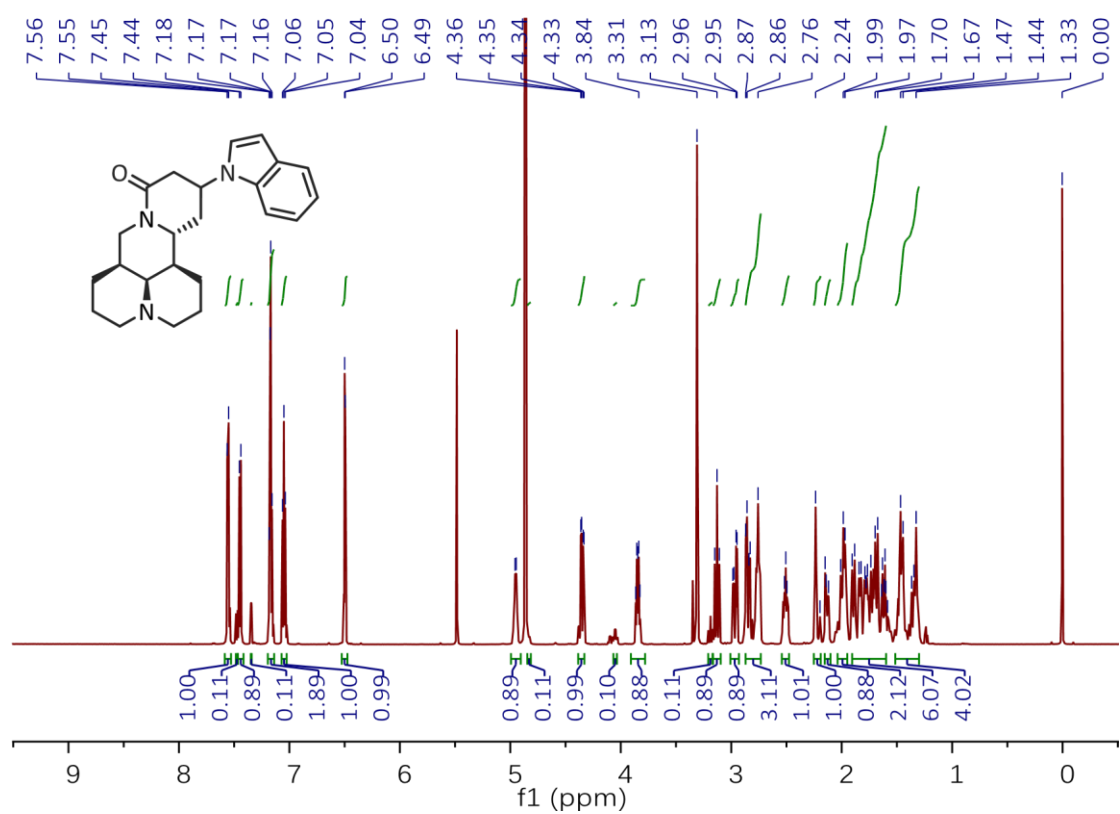
S4-1 ^1H NMR spectrum of 2d (MeOD- d_4 , 600 MHz)



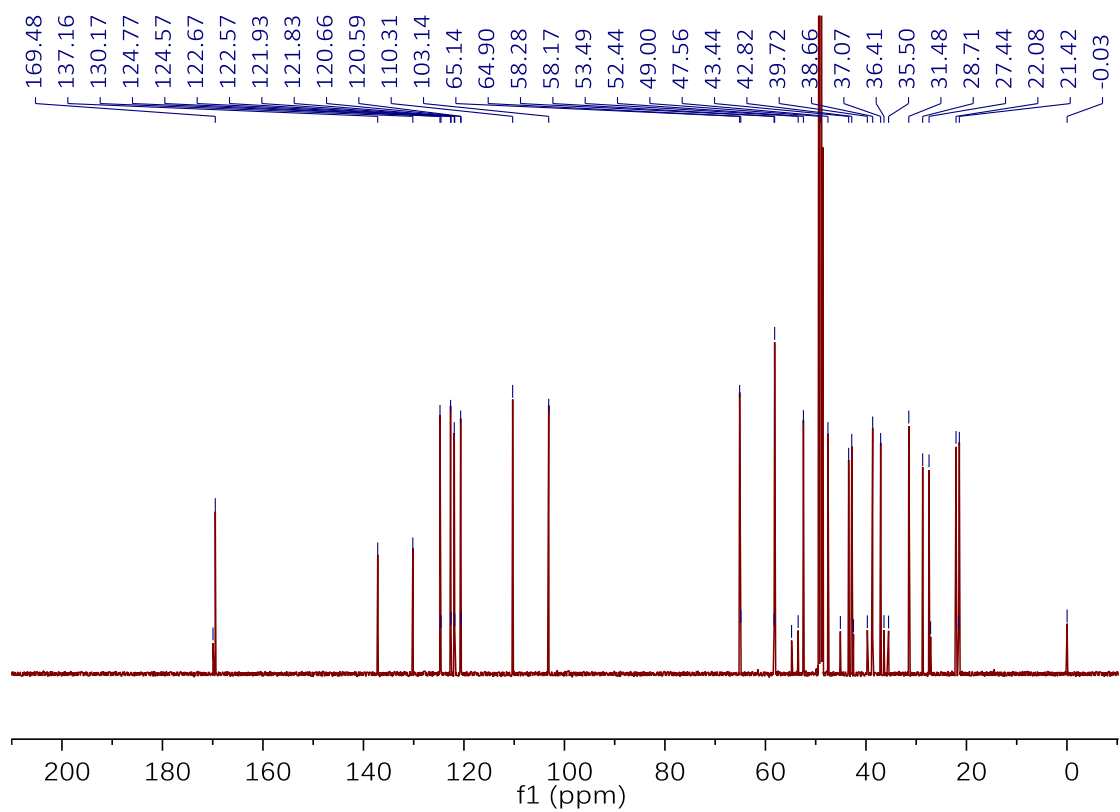
S4-2 ^{13}C NMR spectrum of 2d (MeOD- d_4 , 151 MHz)



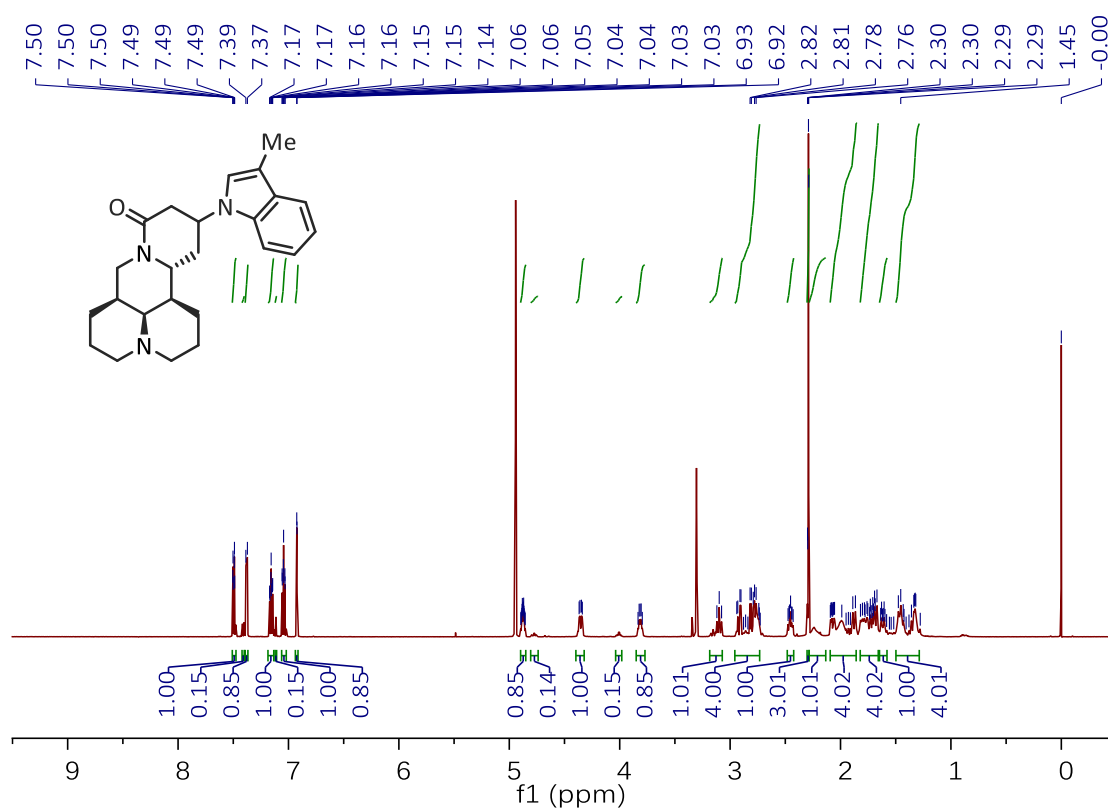
S5-1 ^1H NMR spectrum of 3a (MeOD- d_4 , 600 MHz)



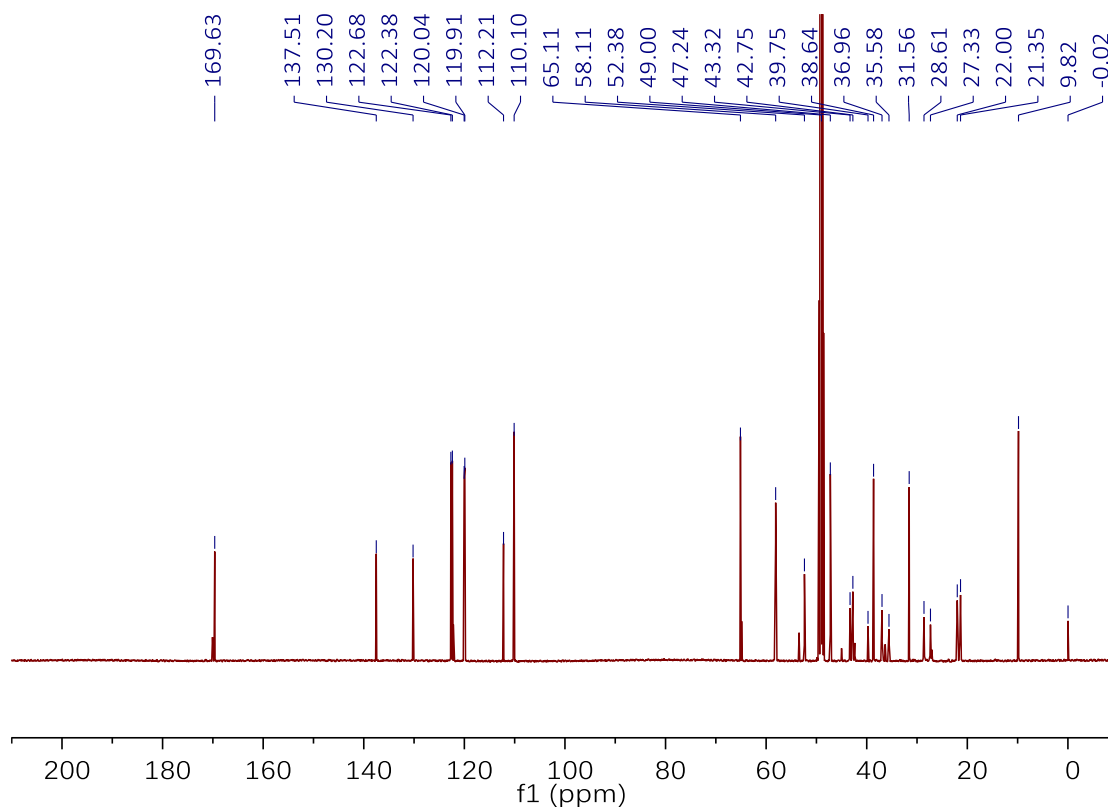
S5-2 ^{13}C NMR spectrum of 3a (MeOD- d_4 , 151 MHz)



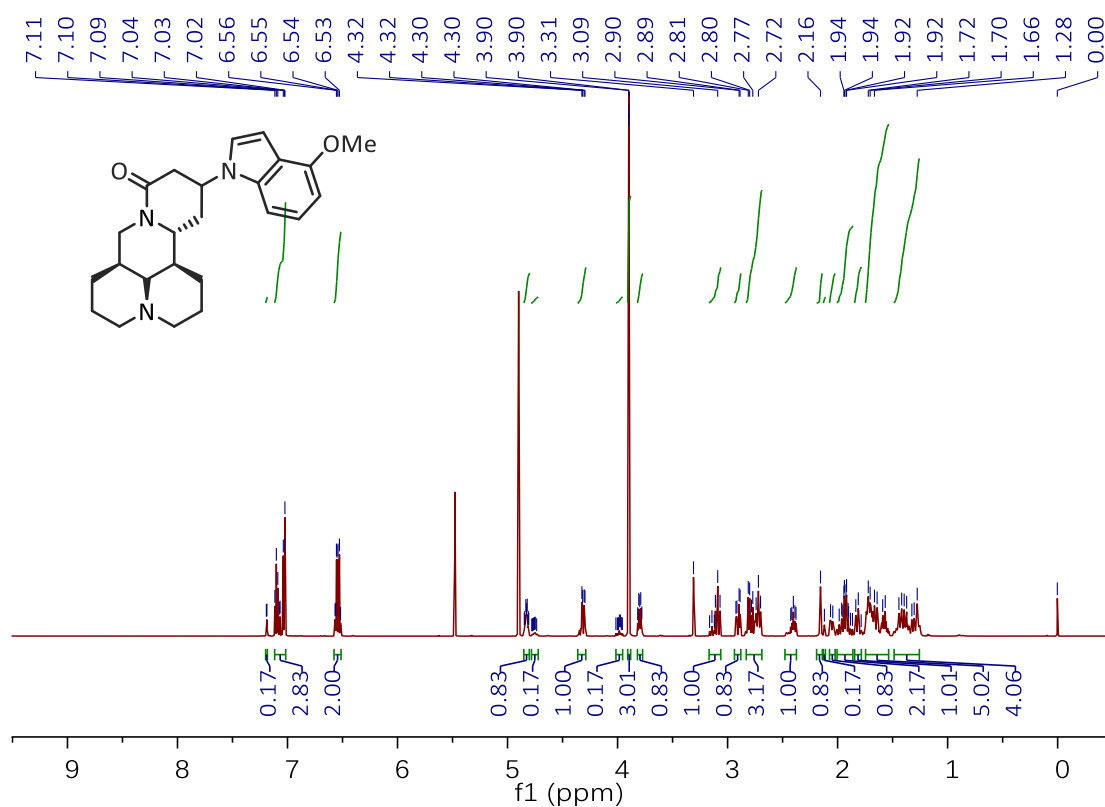
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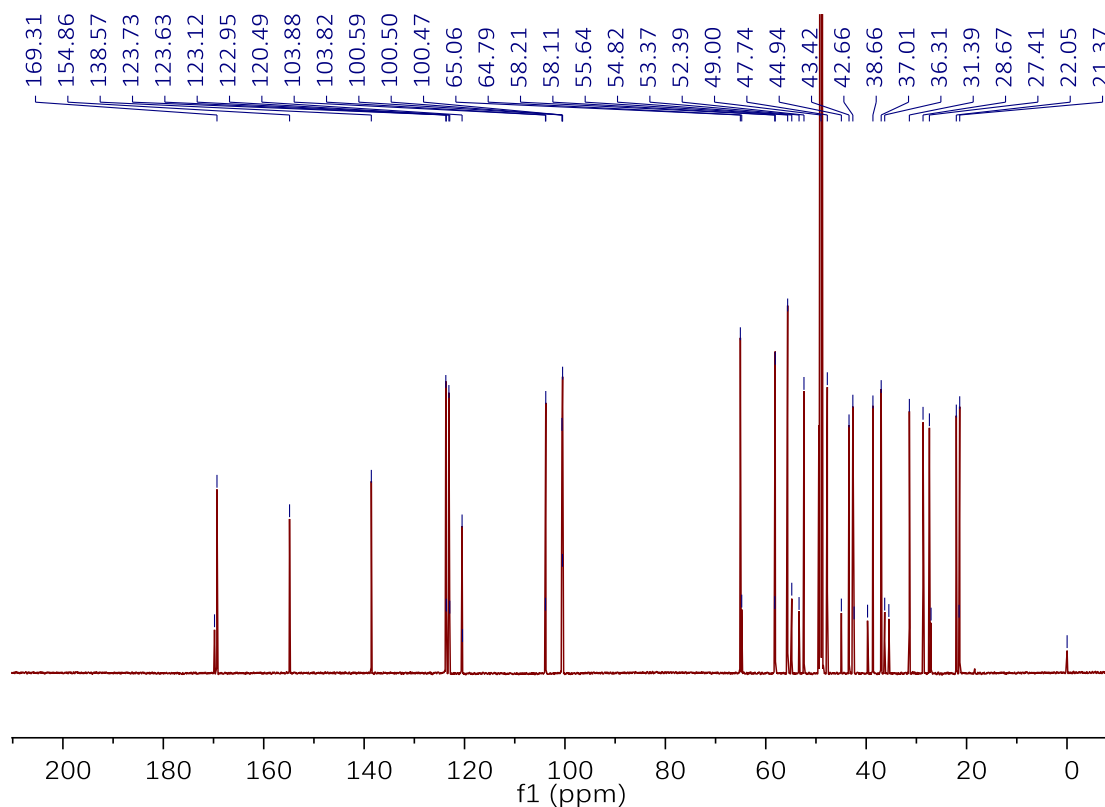
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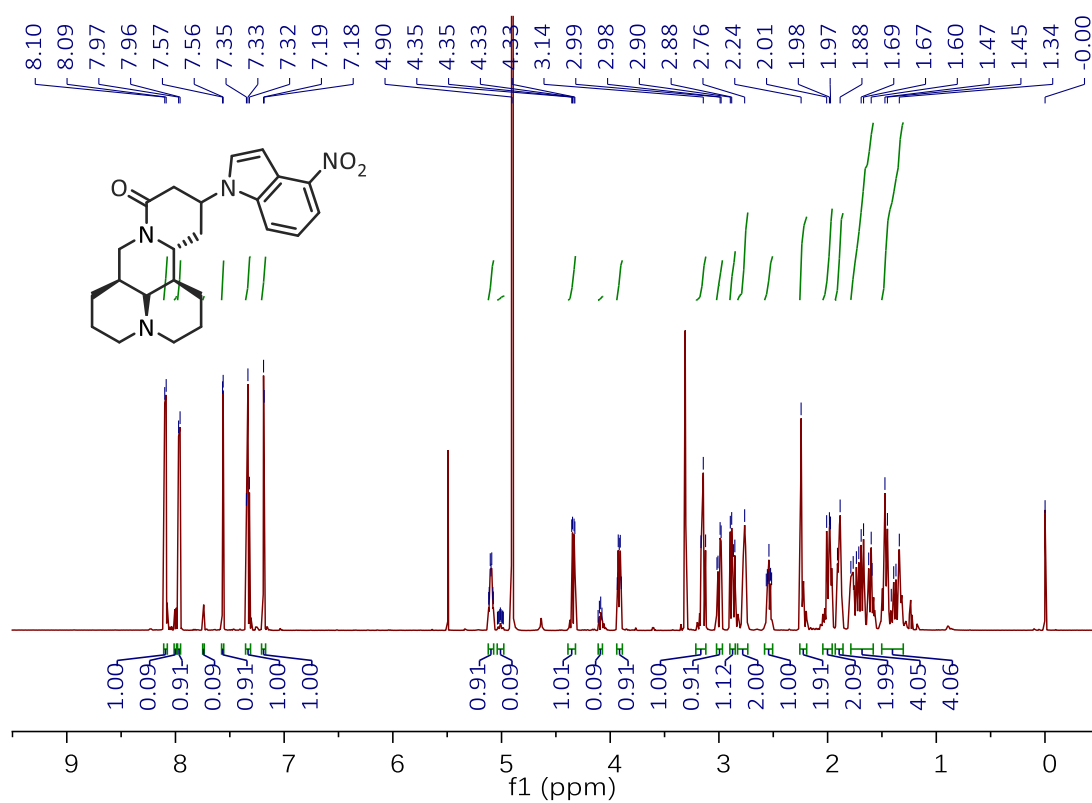
S7-1 ^1H NMR spectrum of 3c (MeOD- d_4 , 600 MHz)



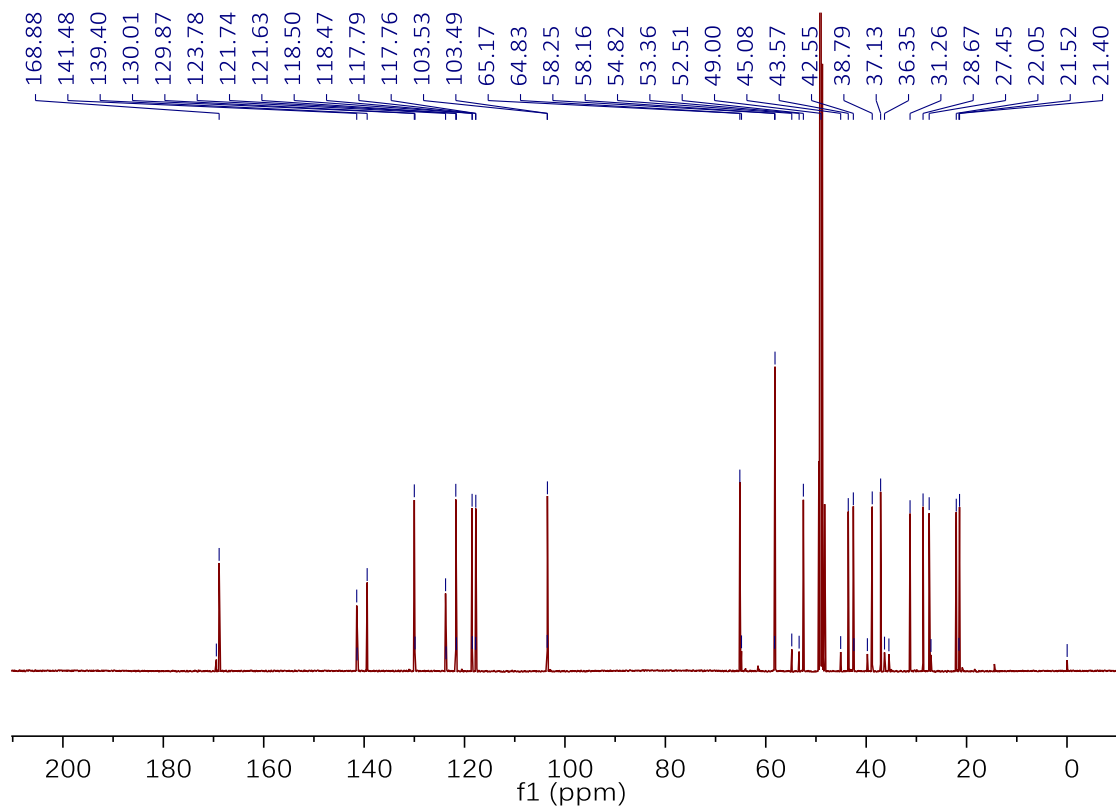
S7-2 ^{13}C NMR spectrum of 3c (MeOD- d_4 , 151 MHz)



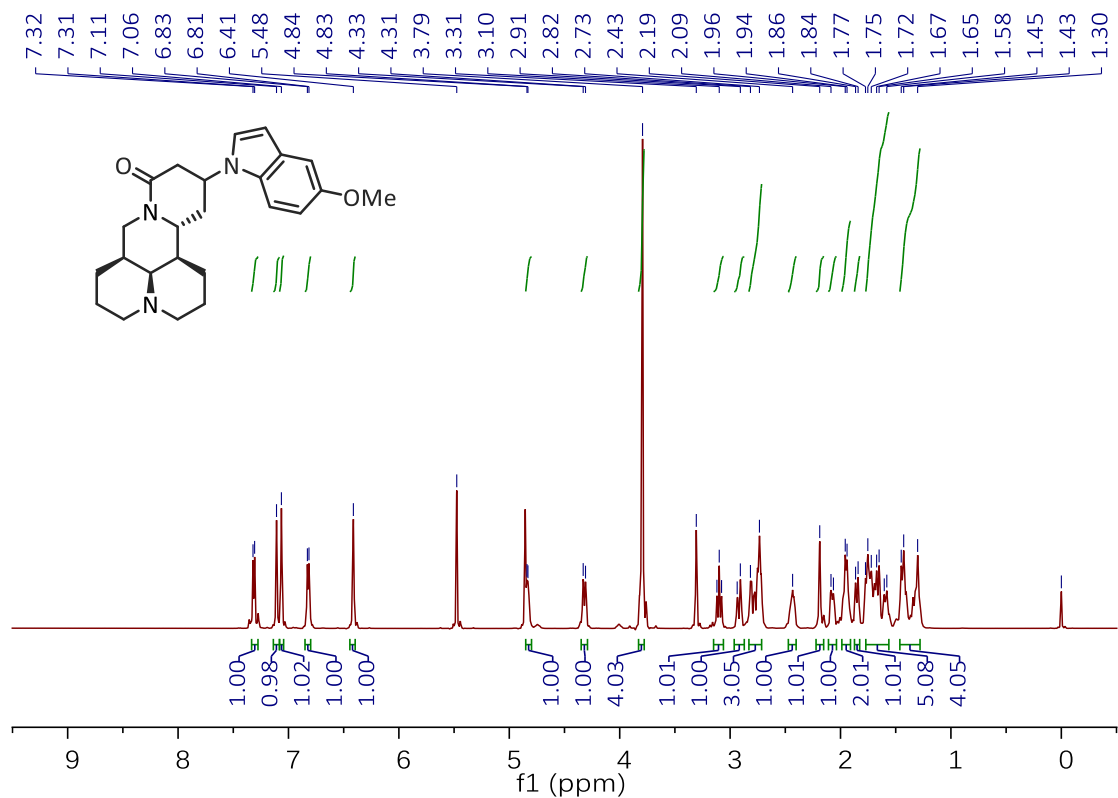
S8-1 ^1H NMR spectrum of 3d (MeOD- d_4 , 600 MHz)



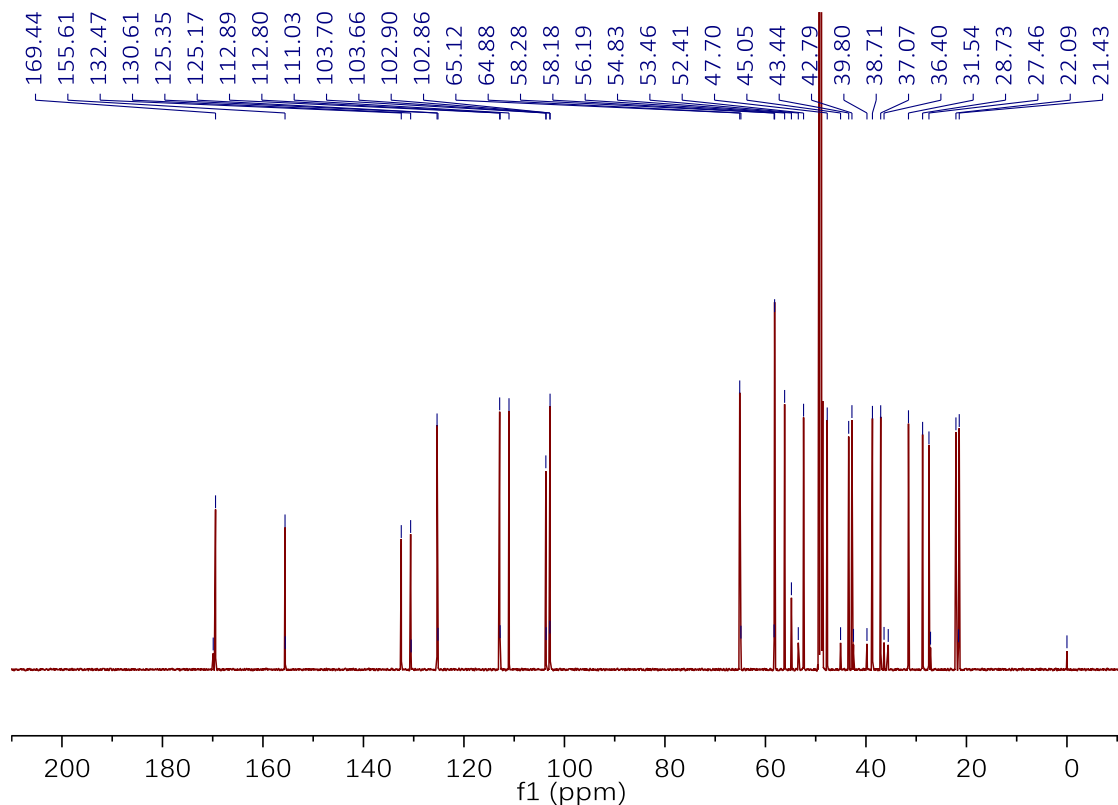
S8-2 ^{13}C NMR spectrum of 3d (MeOD- d_4 , 151 MHz)



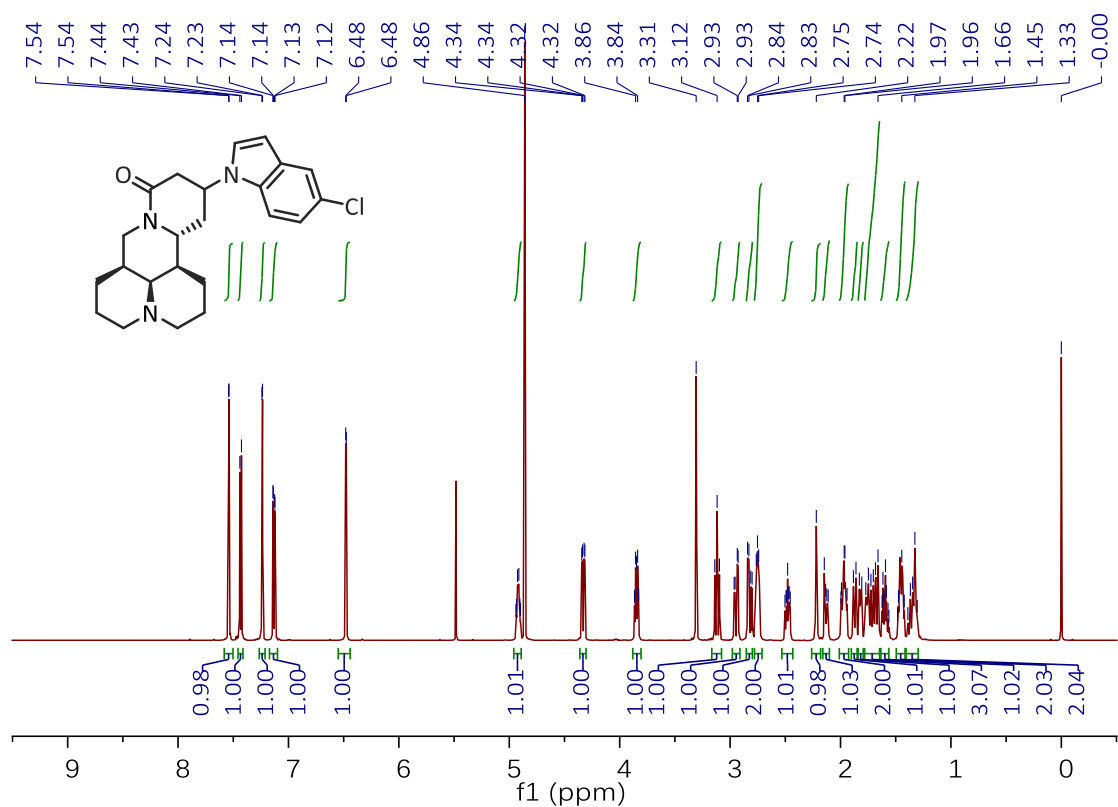
S9-1 ^1H NMR spectrum of 3e (MeOD- d_4 , 600 MHz)



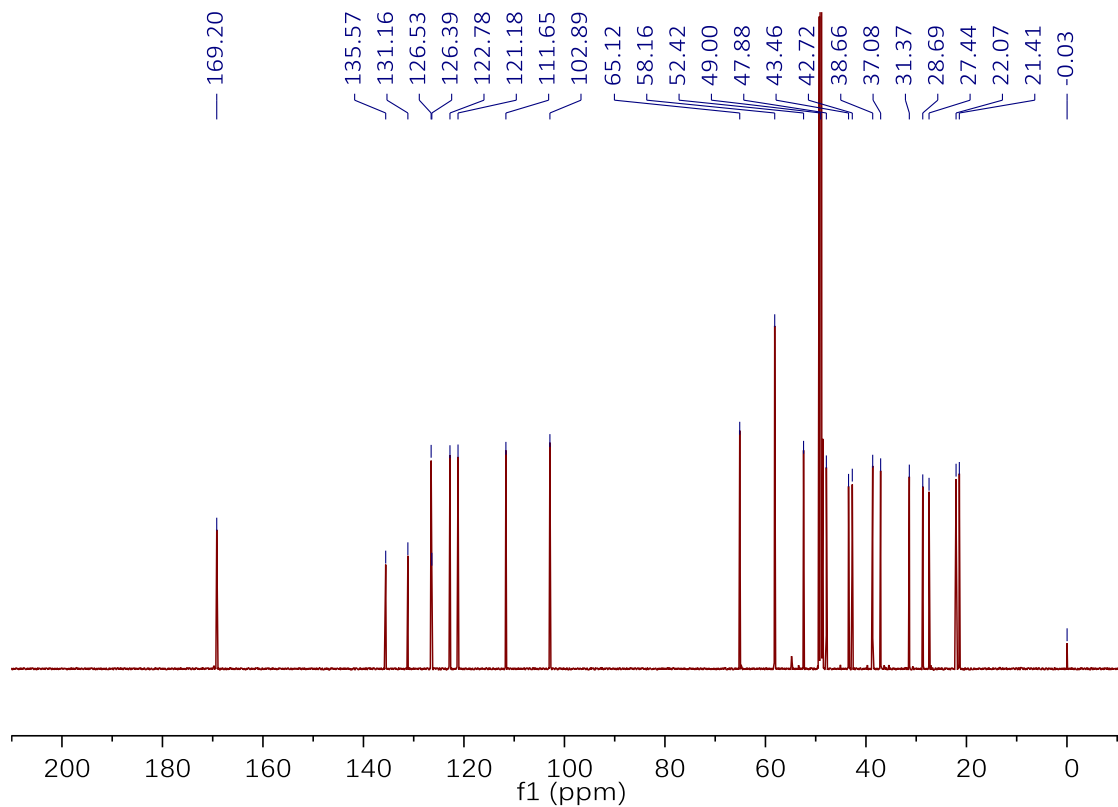
S9-2 ^{13}C NMR spectrum of 3e (MeOD- d_4 , 151 MHz)



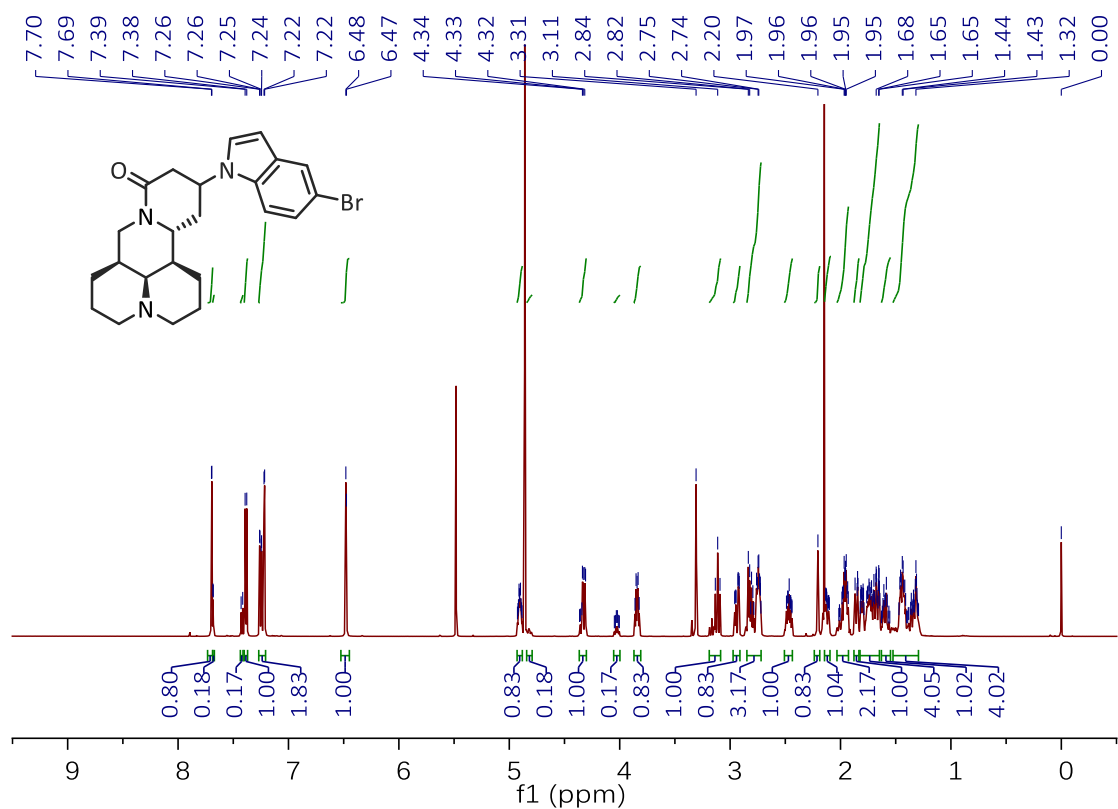
S10-1 ^1H NMR spectrum of 3f (MeOD- d_4 , 600 MHz)



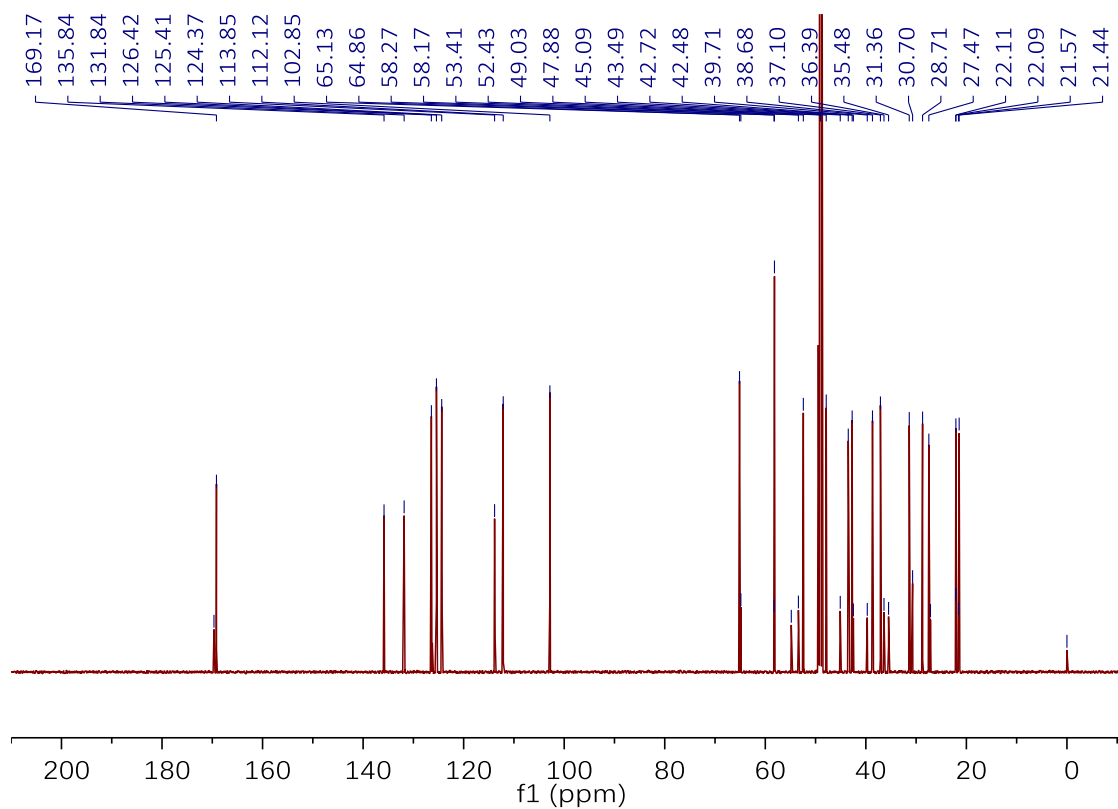
S10-2 ^{13}C NMR spectrum of 3f (MeOD- d_4 , 151 MHz)



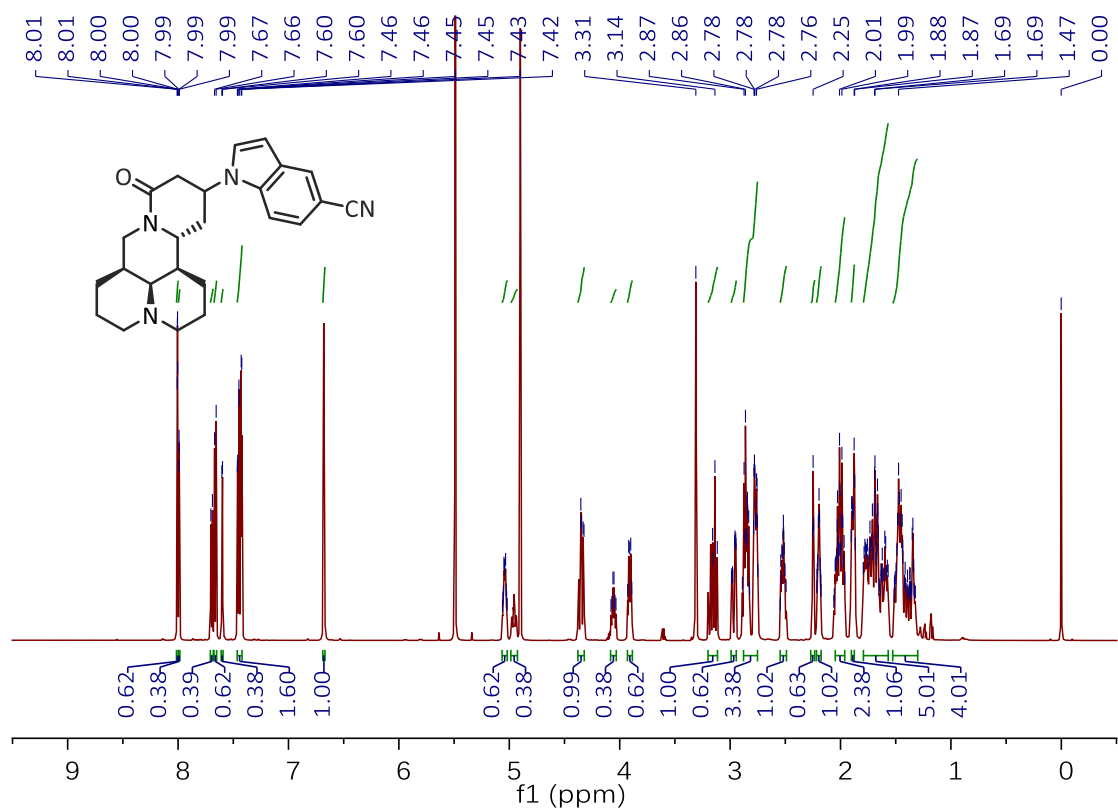
S11-1 ^1H NMR spectrum of 3g (MeOD- d_4 , 600 MHz)



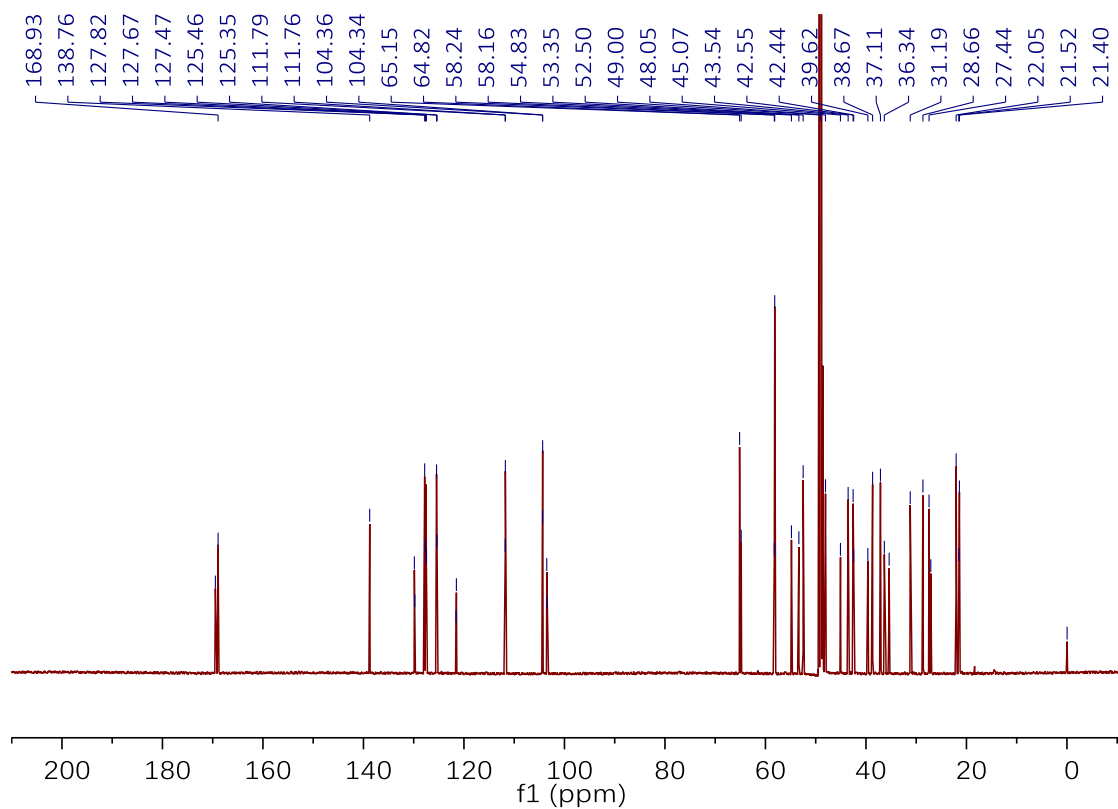
S11-2 ^{13}C NMR spectrum of 3g (MeOD- d_4 , 151 MHz)



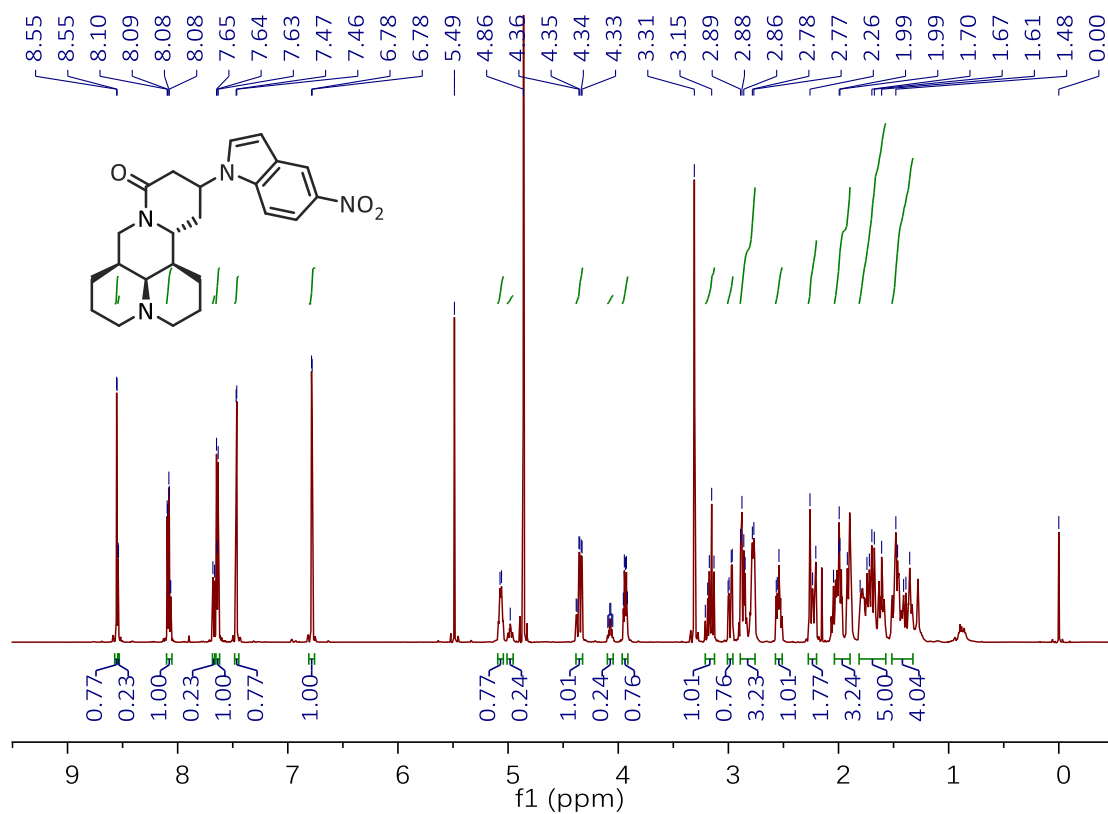
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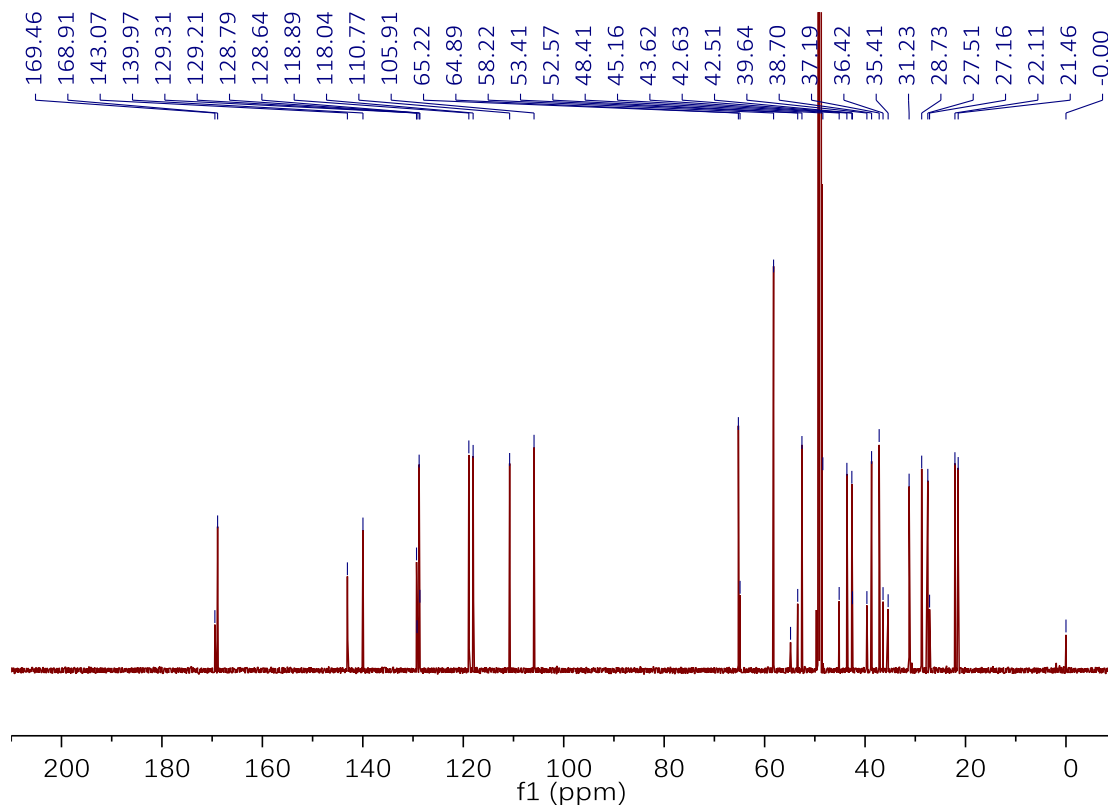
S12-2 ^{13}C NMR spectrum of 3h (MeOD- d_4 , 151 MHz)



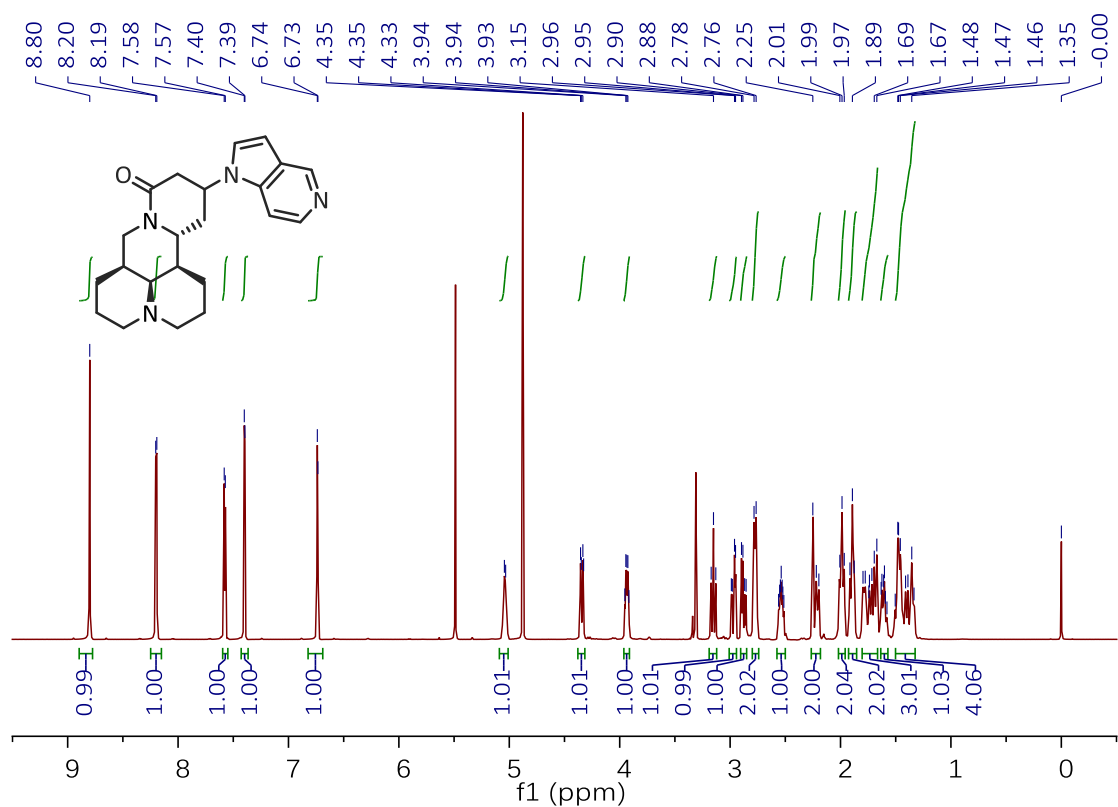
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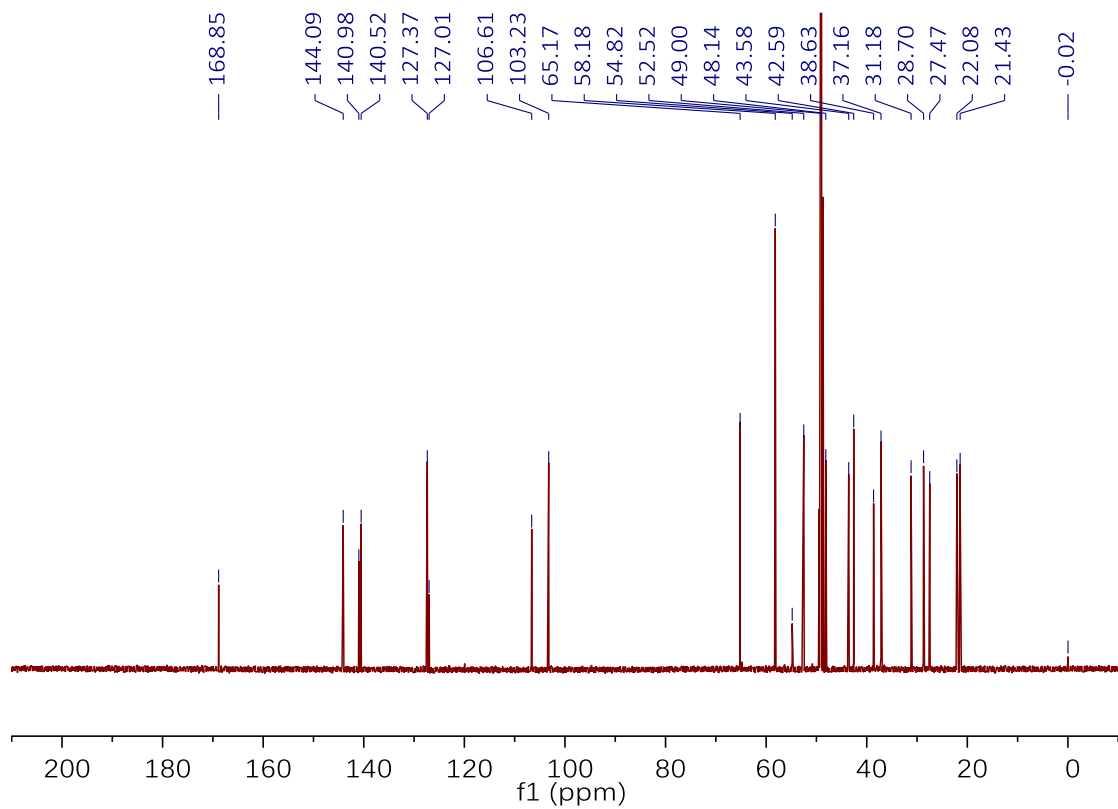
S13-2 ^{13}C NMR spectrum of 3i (MeOD- d_4 , 151 MHz)



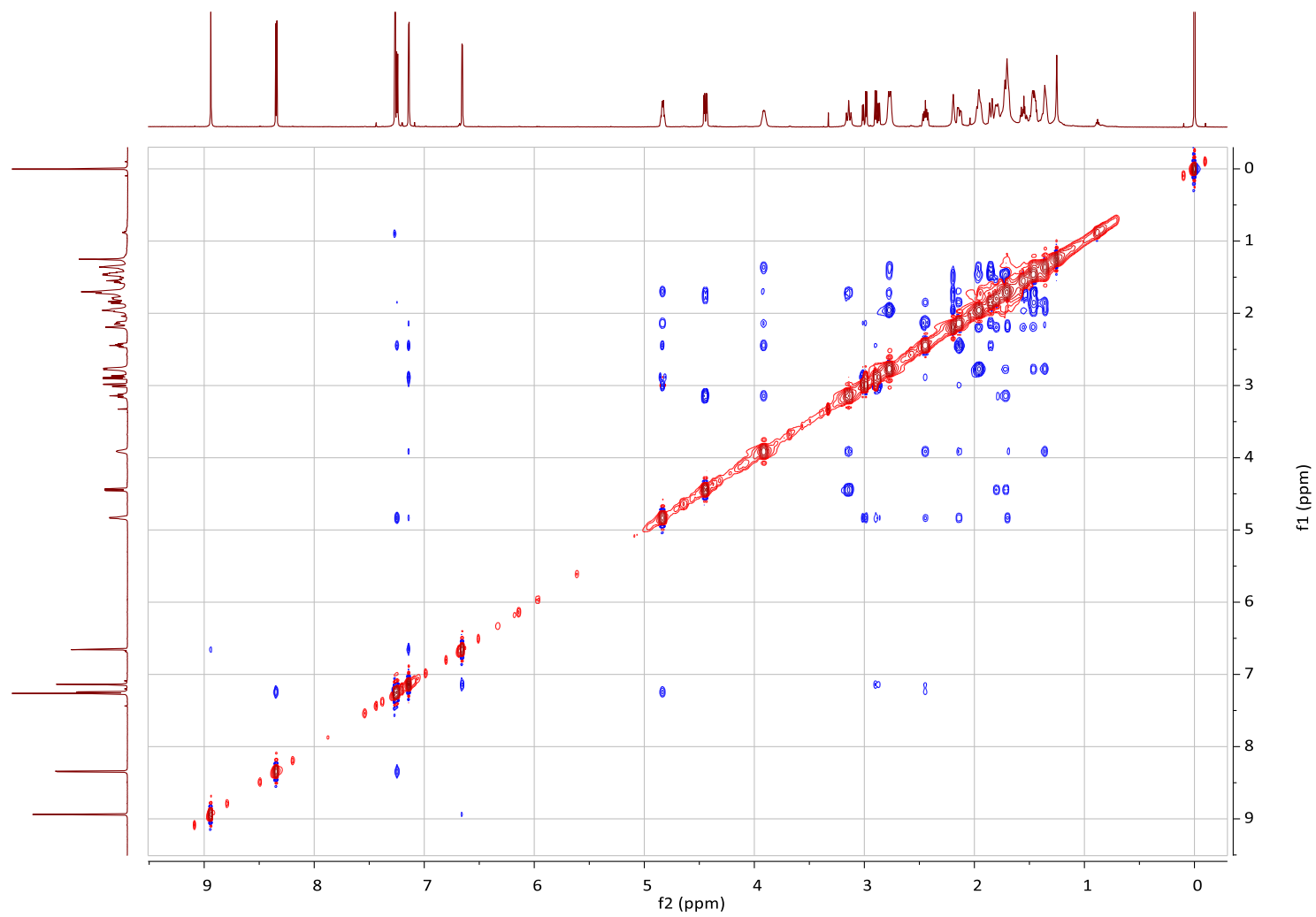
S14-1 ^1H NMR spectrum of **3j** (MeOD- d_4 , 600 MHz)



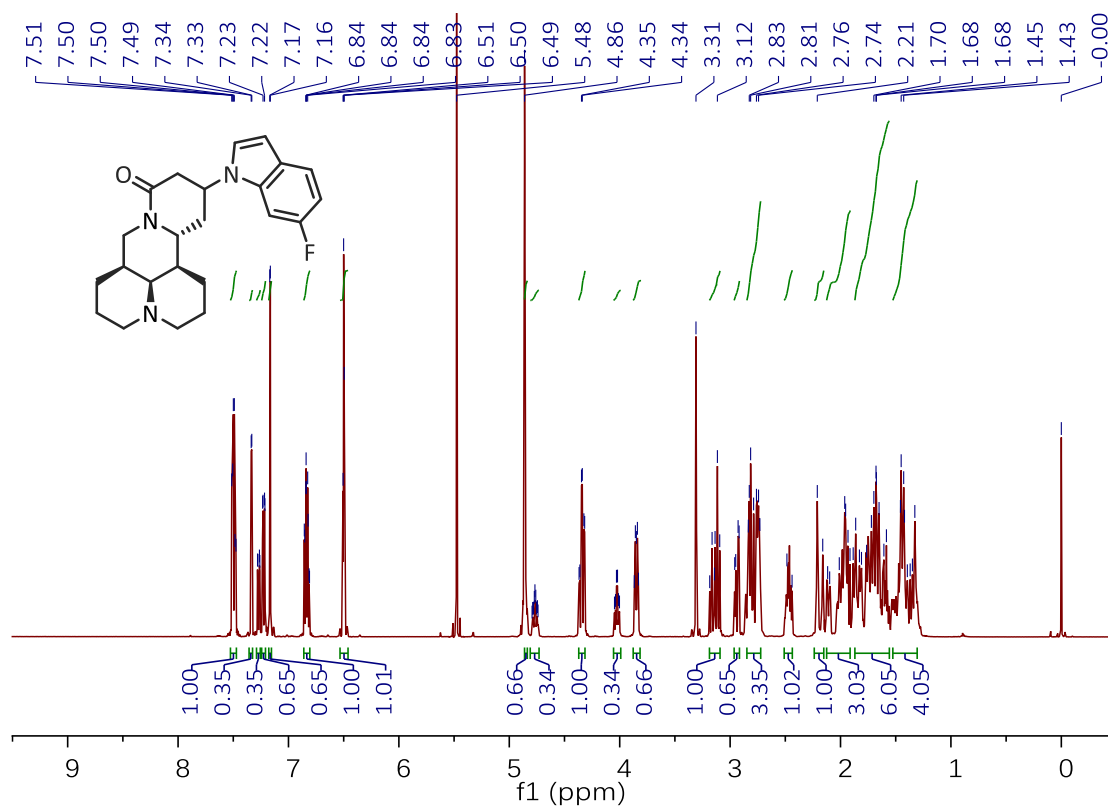
S14-2 ^{13}C NMR spectrum of **3j** (MeOD- d_4 , 151 MHz)



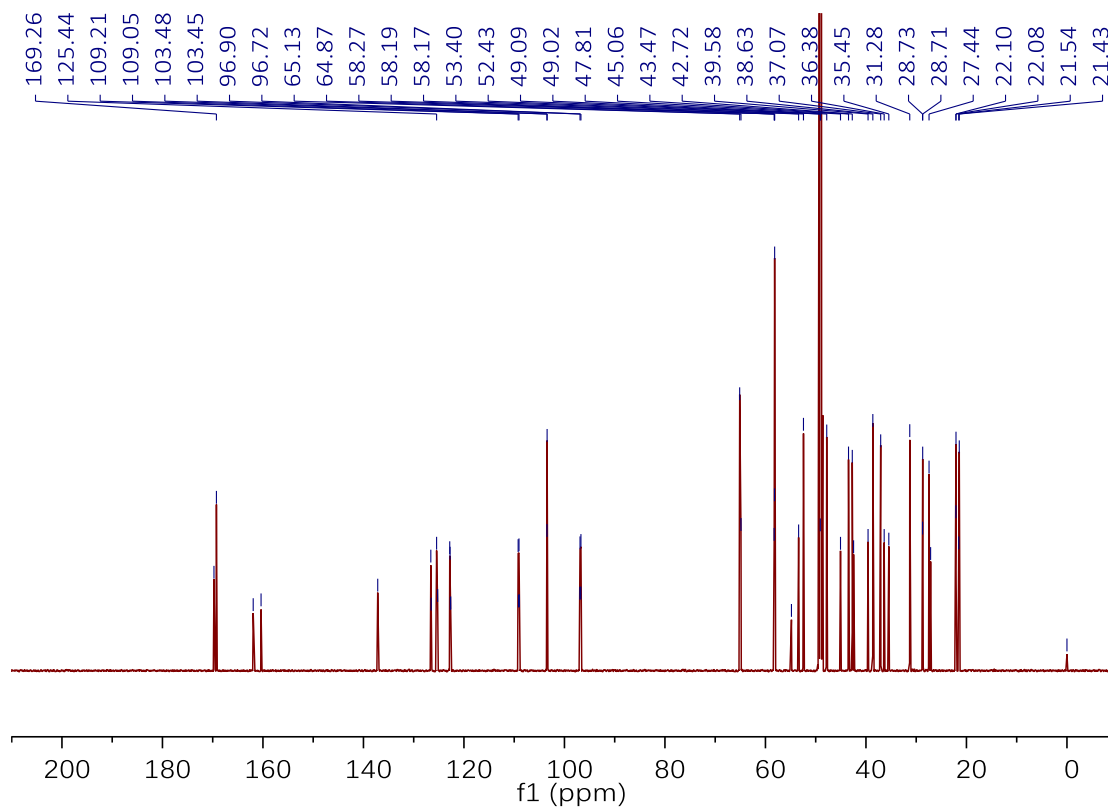
S14-3 NOESY spectrum of 3j (CDCl₃, 600 MHz)



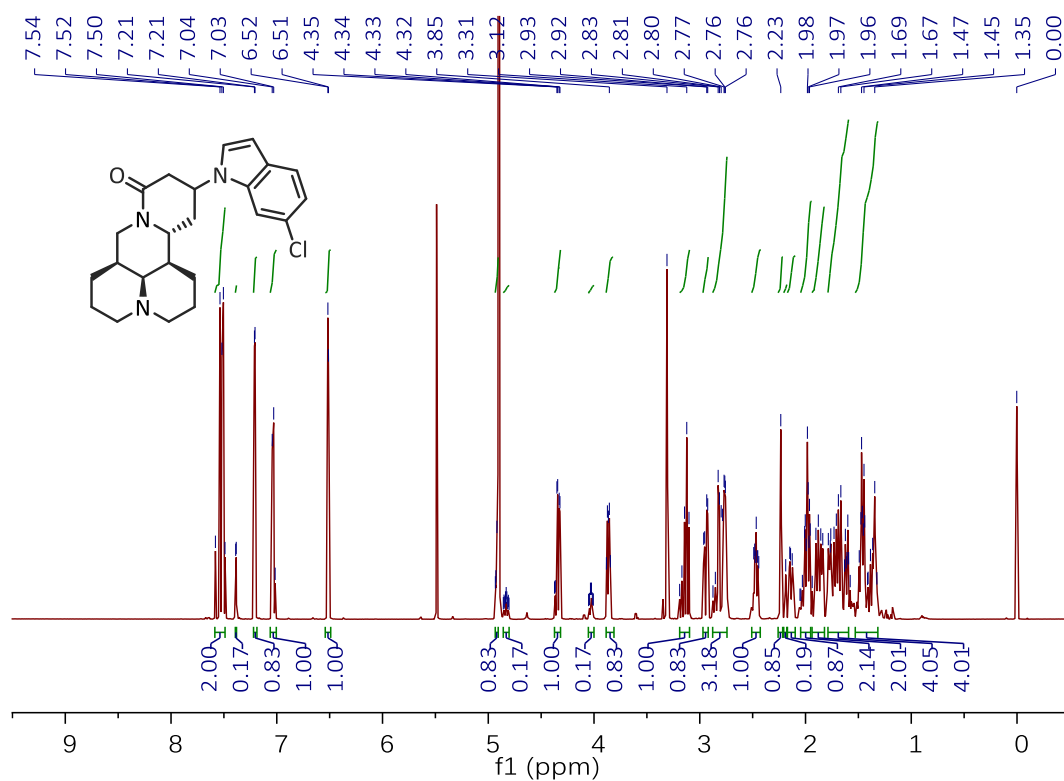
S15-1 ^1H NMR spectrum of 3k (MeOD- d_4 , 600 MHz)



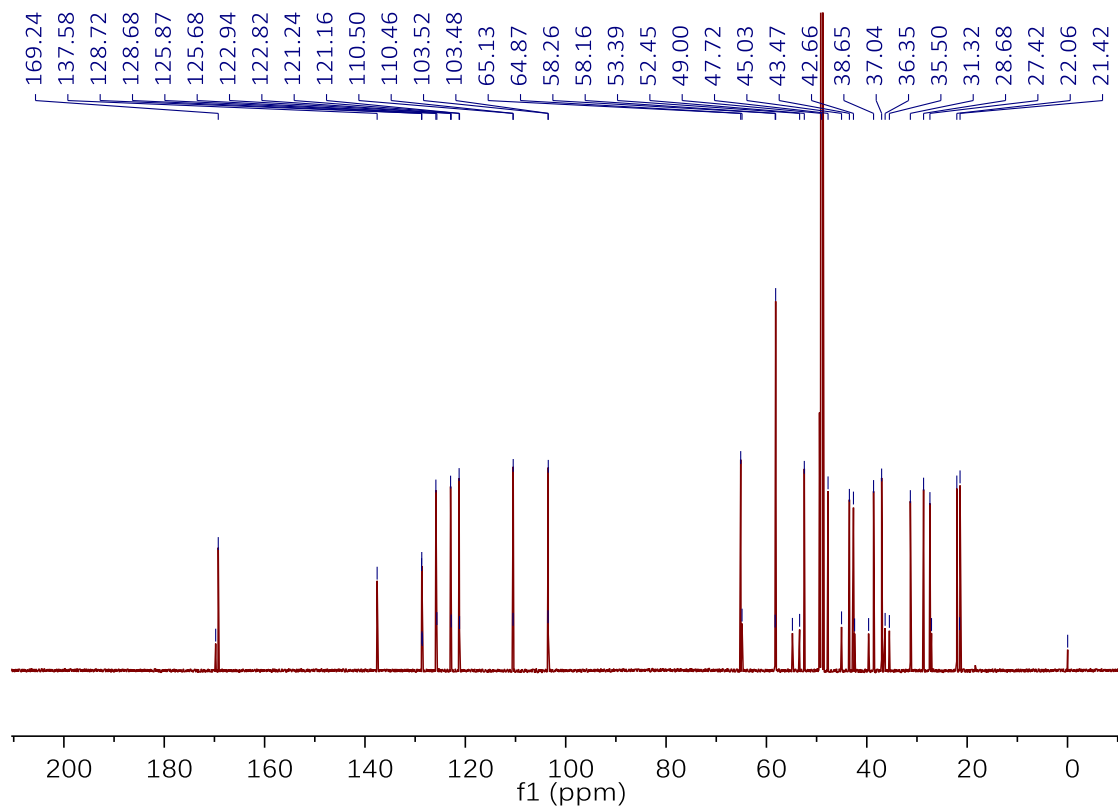
S15-2 ^{13}C NMR spectrum of 3k (MeOD- d_4 , 151 MHz)



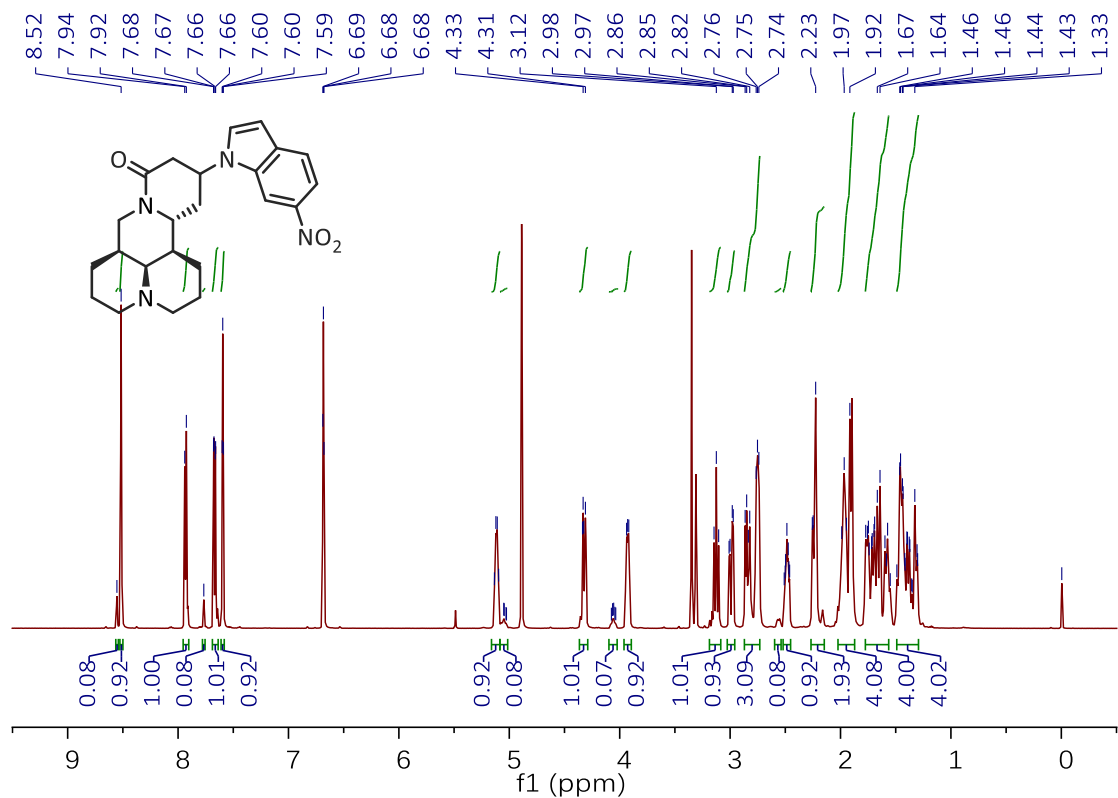
S16-1 ^1H NMR spectrum of 3l (MeOD- d_4 , 600 MHz)



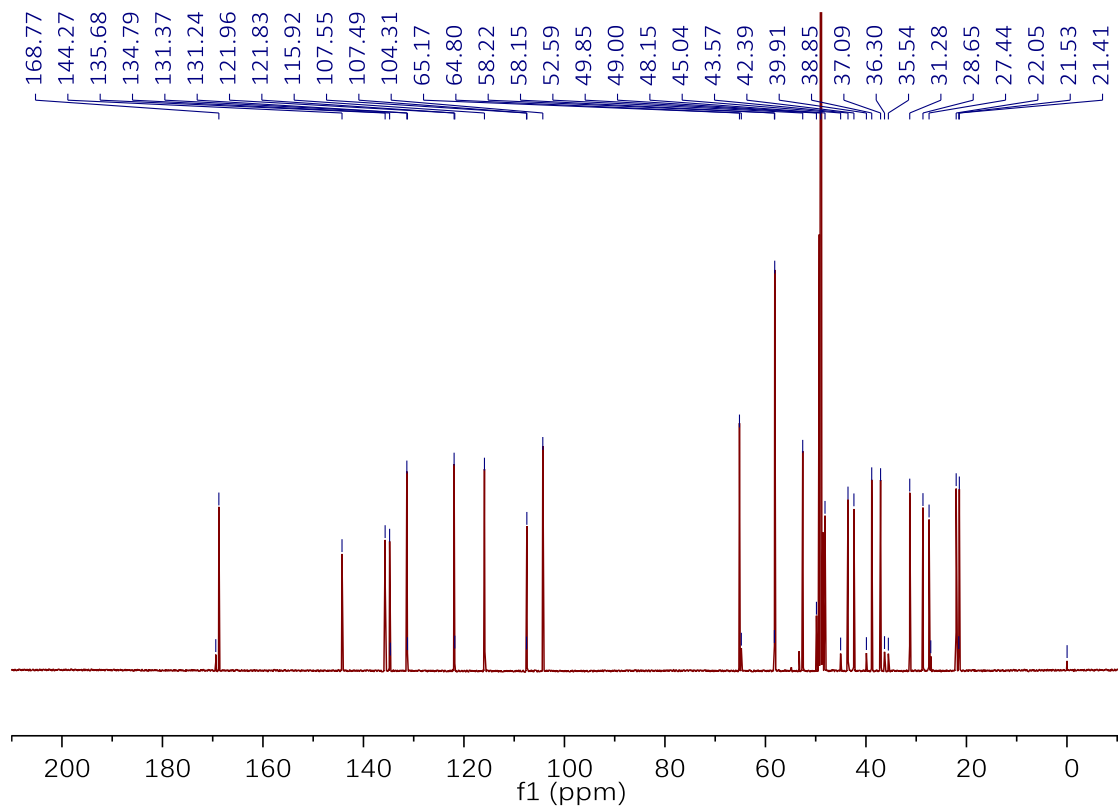
S16-2 ^{13}C NMR spectrum of 3l (MeOD- d_4 , 151 MHz)



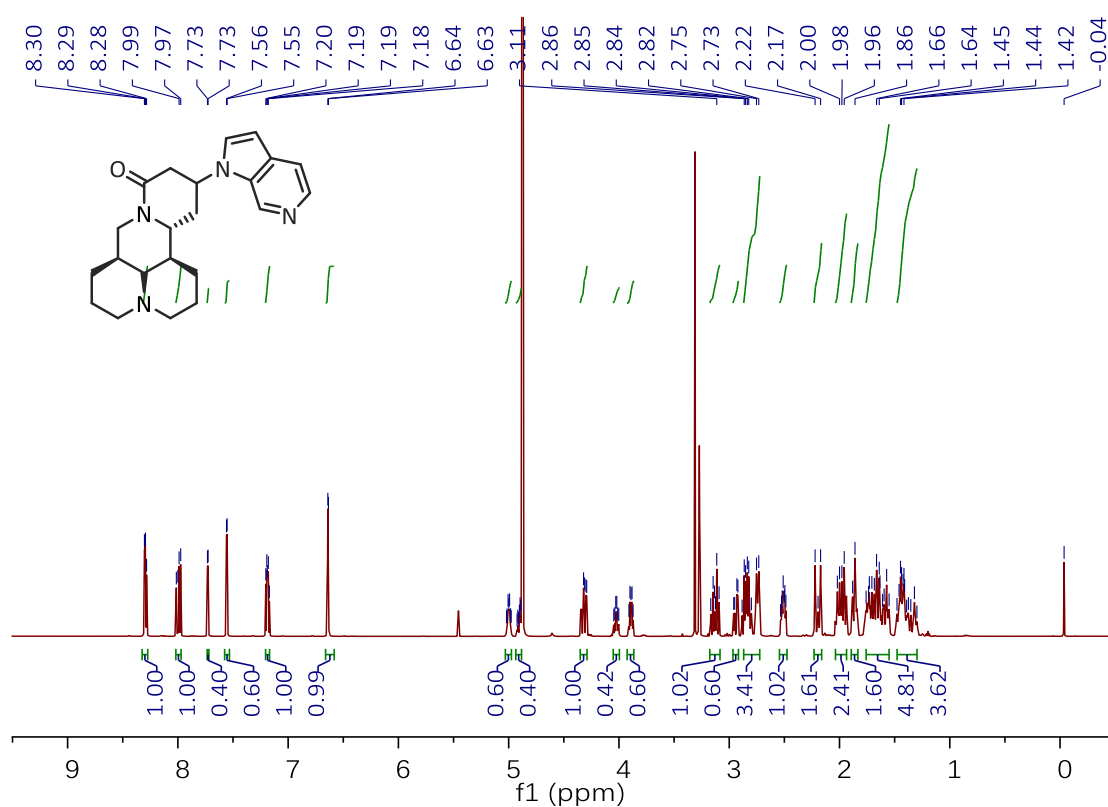
S17-1 ^1H NMR spectrum of 3m (MeOD- d_4 , 600 MHz)



S17-2 ^{13}C NMR spectrum of 3m (MeOD- d_4 , 151 MHz)



S18-1 ^1H NMR spectrum of 3n (MeOD- d_4 , 600 MHz)



S18-2 ^{13}C NMR spectrum of 3n (MeOD- d_4 , 151 MHz)

