

Supplementary Material

Synthesis of pyrrolocarbazoles with *N*-substituted alkynyl-, alkylcyano- and alkylhydroxyl-groups

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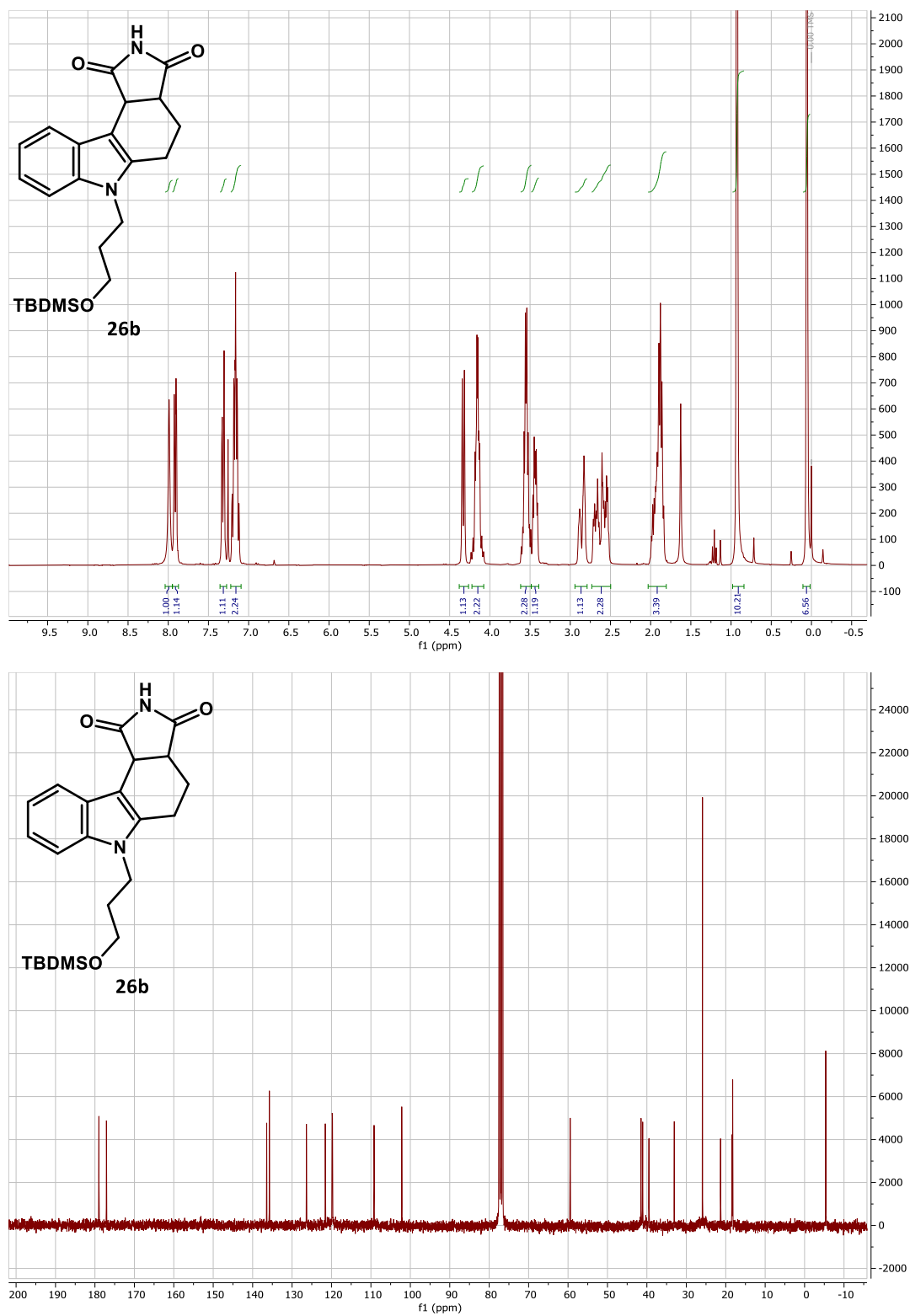
Figure S1: ^1H and ^{13}C NMR spectra of compound **26b**.

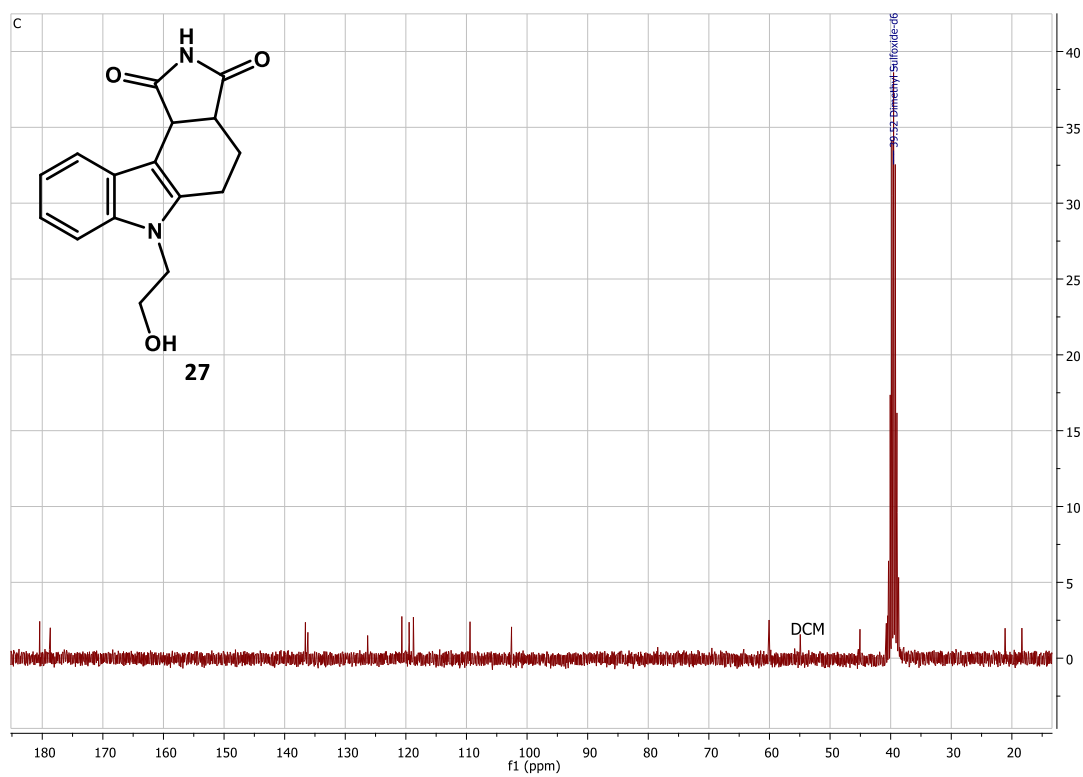
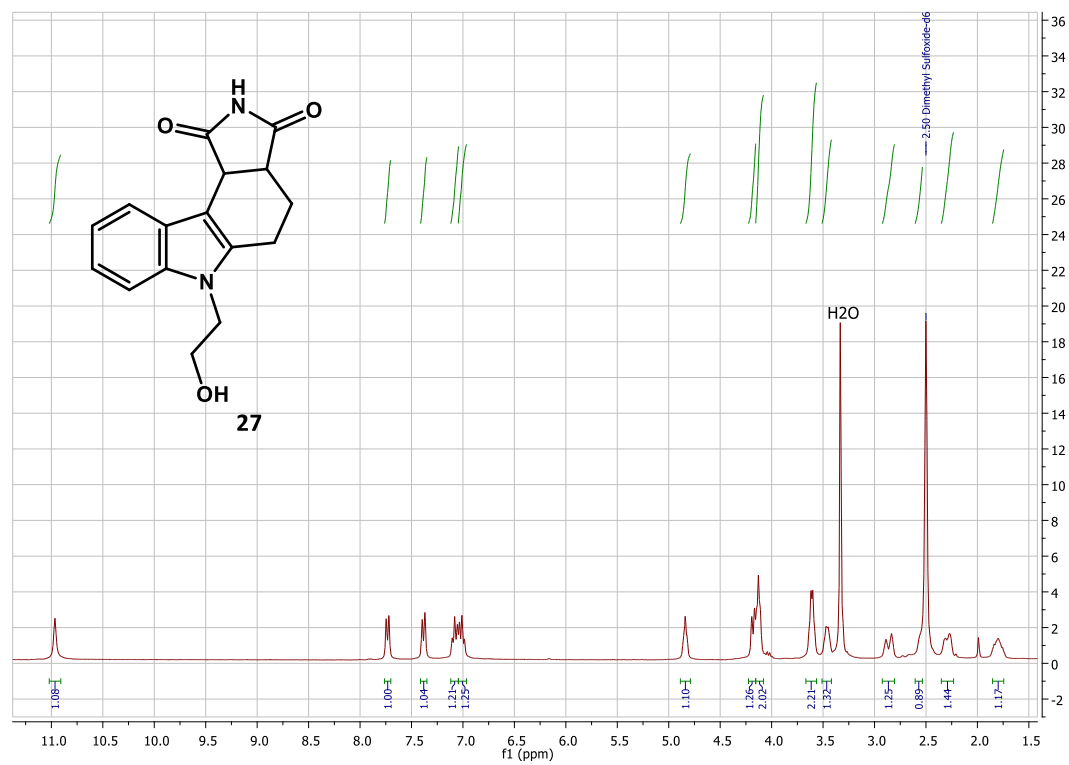
Figure S2: ^1H and ^{13}C NMR spectra of compound **27**.

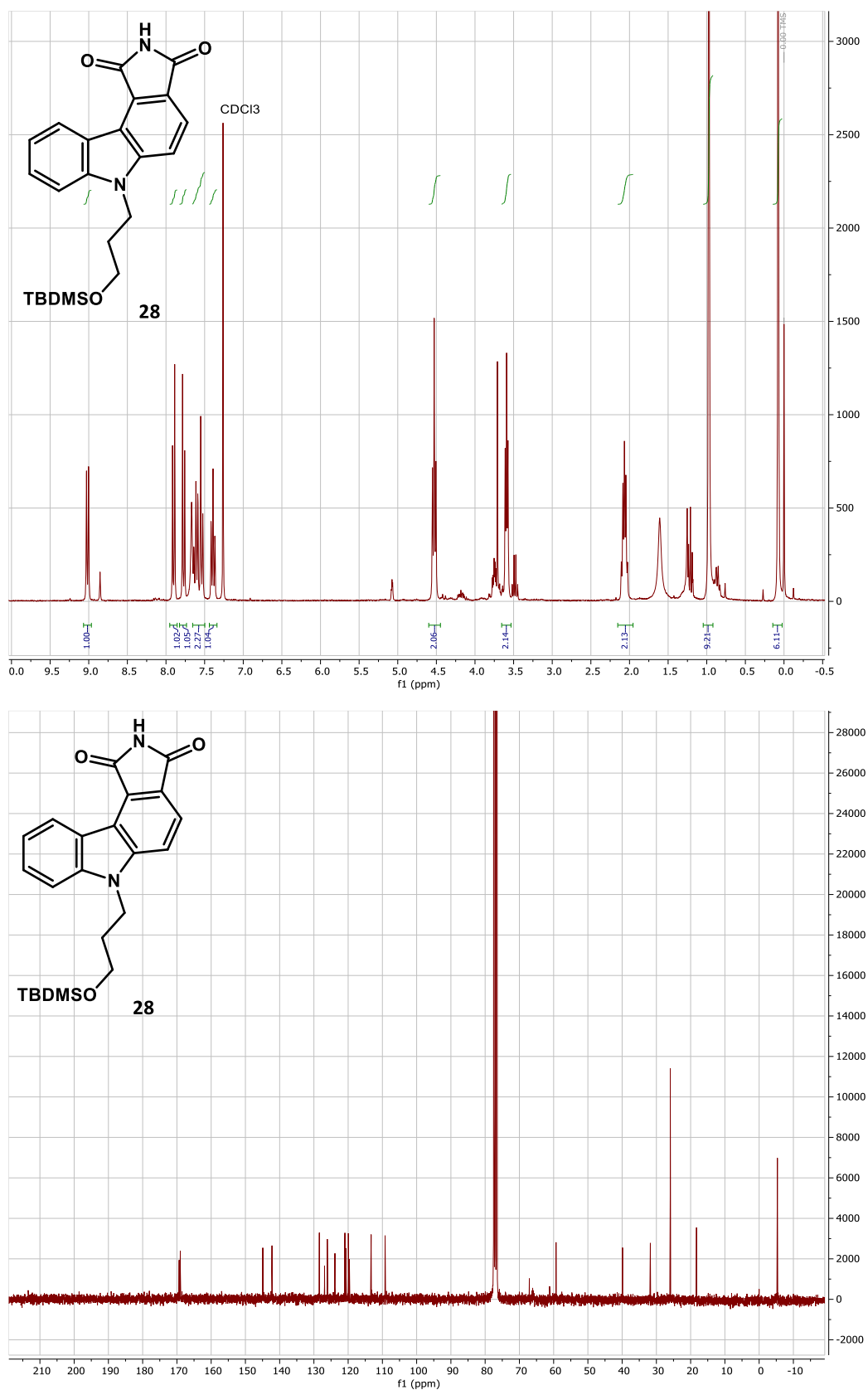
Figure S3: ^1H and ^{13}C NMR spectra of compound **28**.

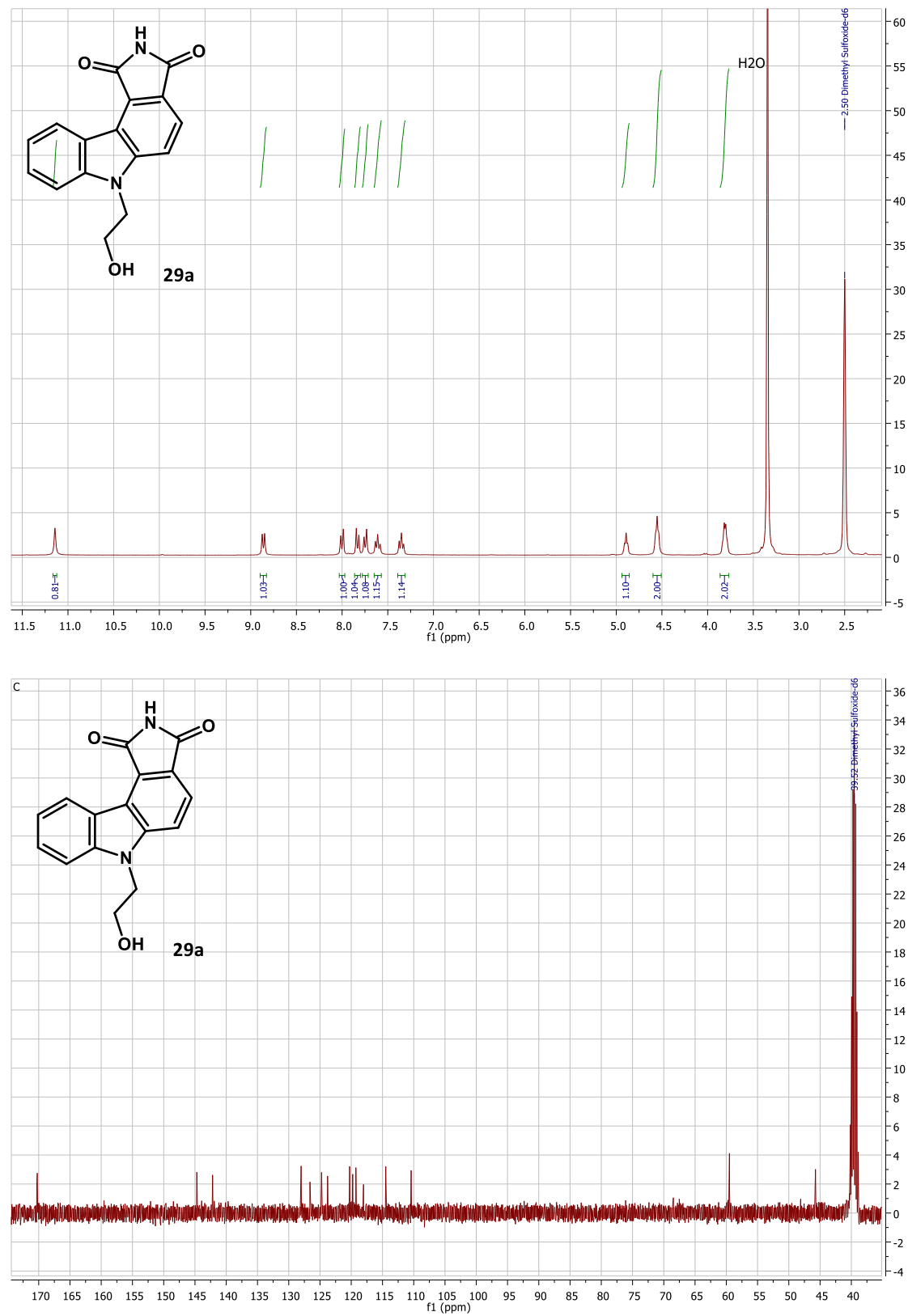
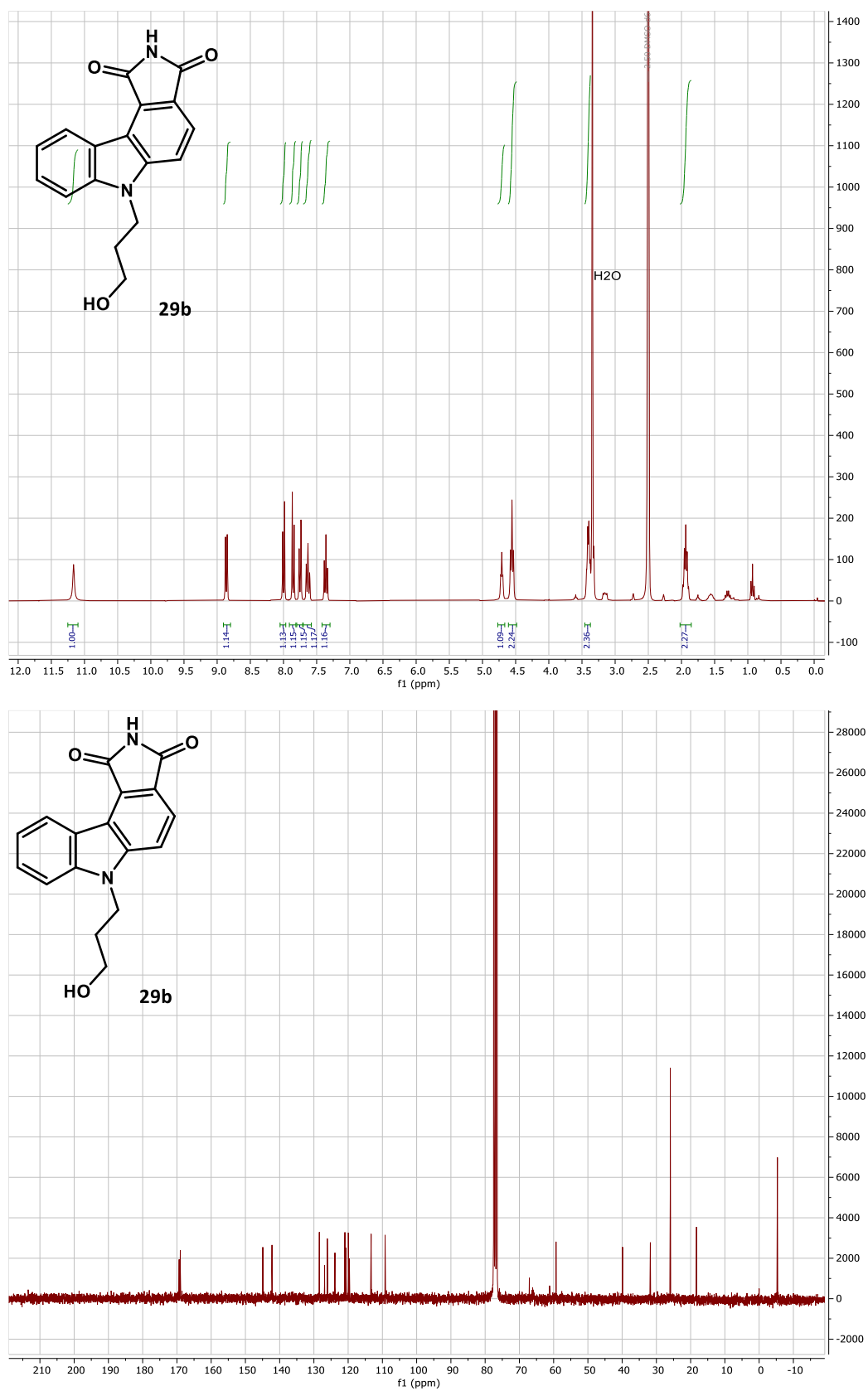
Figure S4: ^1H and ^{13}C NMR spectra of compound **29a**.

Figure S5: ^1H and ^{13}C NMR spectra of compound **29b**.

31a

¹H NMR spectrum (CDCl₃) of compound **31a**. The x-axis represents the chemical shift in ppm (f1), ranging from 1.0 to 4.5. The y-axis represents the intensity. The spectrum shows several peaks, with integration values provided below the baseline. Key peaks are labeled: H₂O (around 3.3 ppm) and EtOAc (around 2.1 ppm). A reference peak for 2,5-Dimethyl Sulfoxide-d₆ is indicated at 2.50 ppm.

Chemical Shift (ppm)	Integration
1.02	0.82
1.06	1.00
1.09	1.06
1.12	1.09
1.17	1.21
1.97	1.97
2.03	1.03
2.17	1.17
2.21	0.91
2.25	1.12
2.29	0.93
2.33	1.01
2.37	1.03

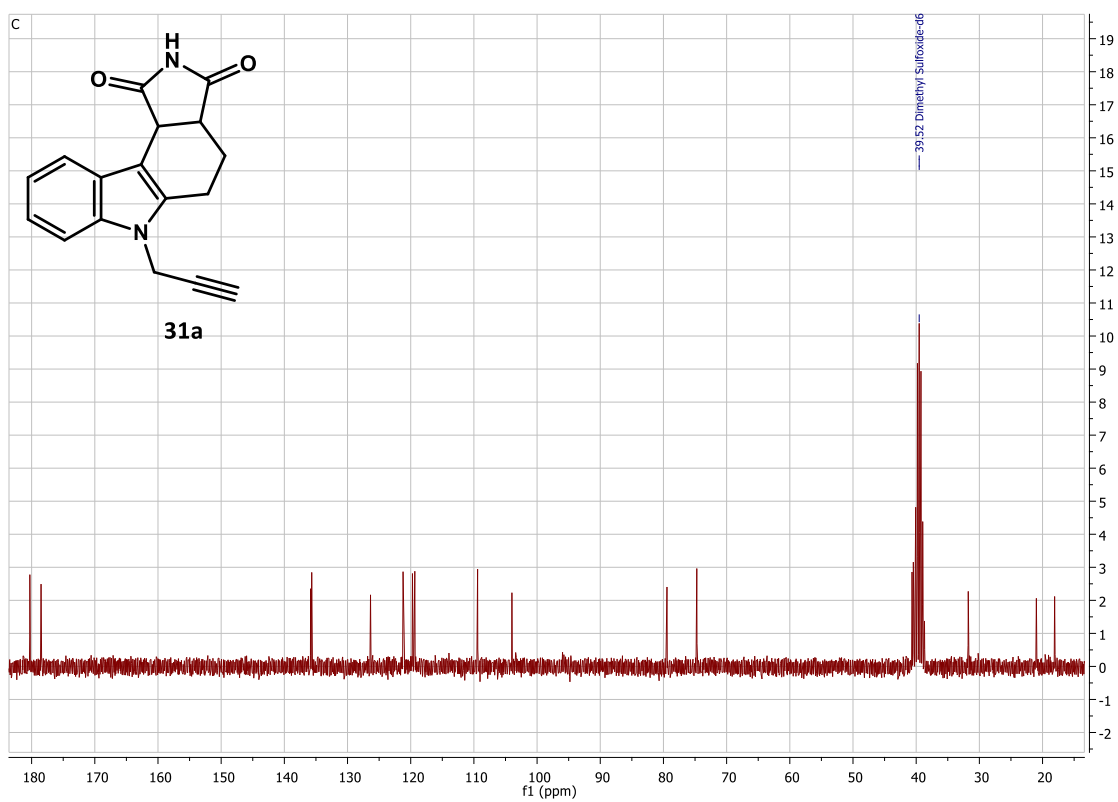


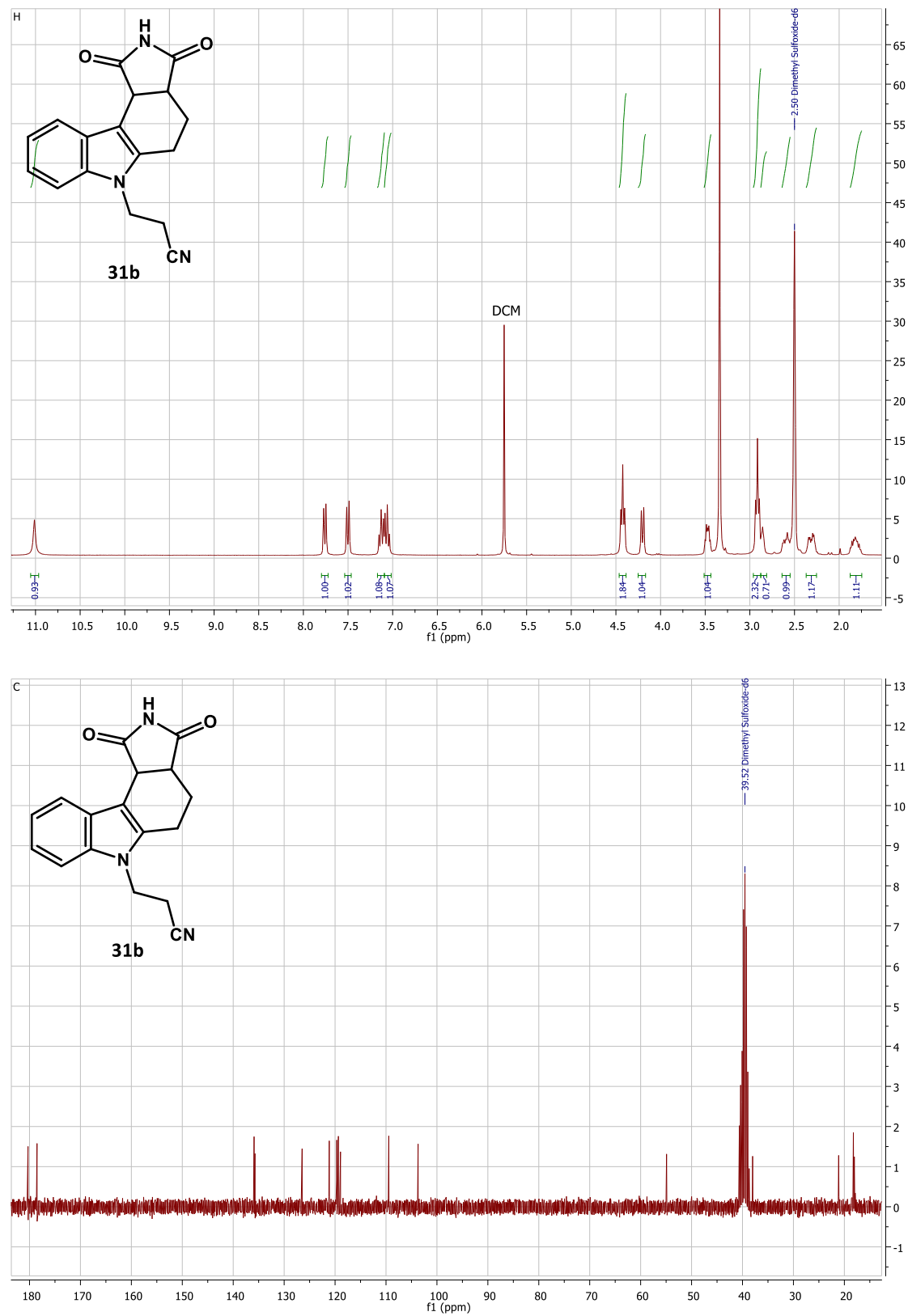
Figure S7: ^1H and ^{13}C NMR spectra of compound **31b**.

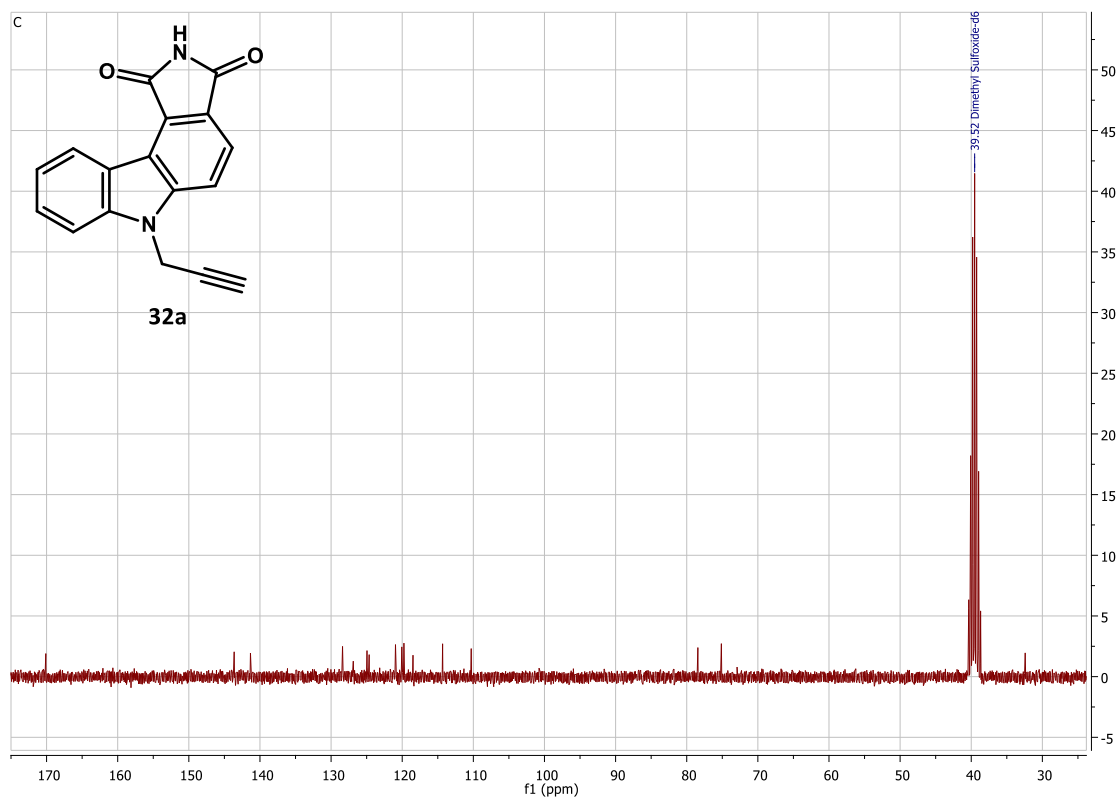
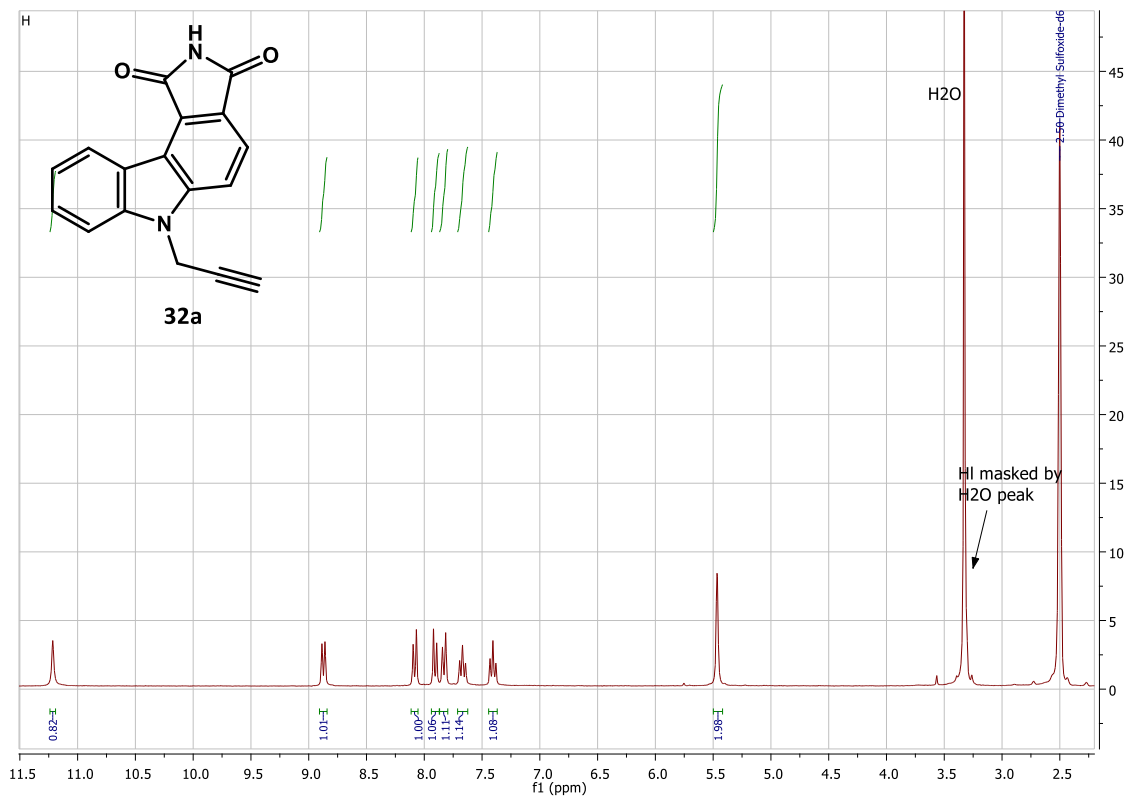
Figure S8: ^1H and ^{13}C NMR spectra of compound **32a**.

Figure S9: ^1H and ^{13}C NMR spectra of compound **32b**.