Synthesis of 6,7-Dihydrodibenzo[*b,j*]phenanthroline Derivatives by Pfitzinger Condensation of Isatin and Cyclic Diketones

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Contents

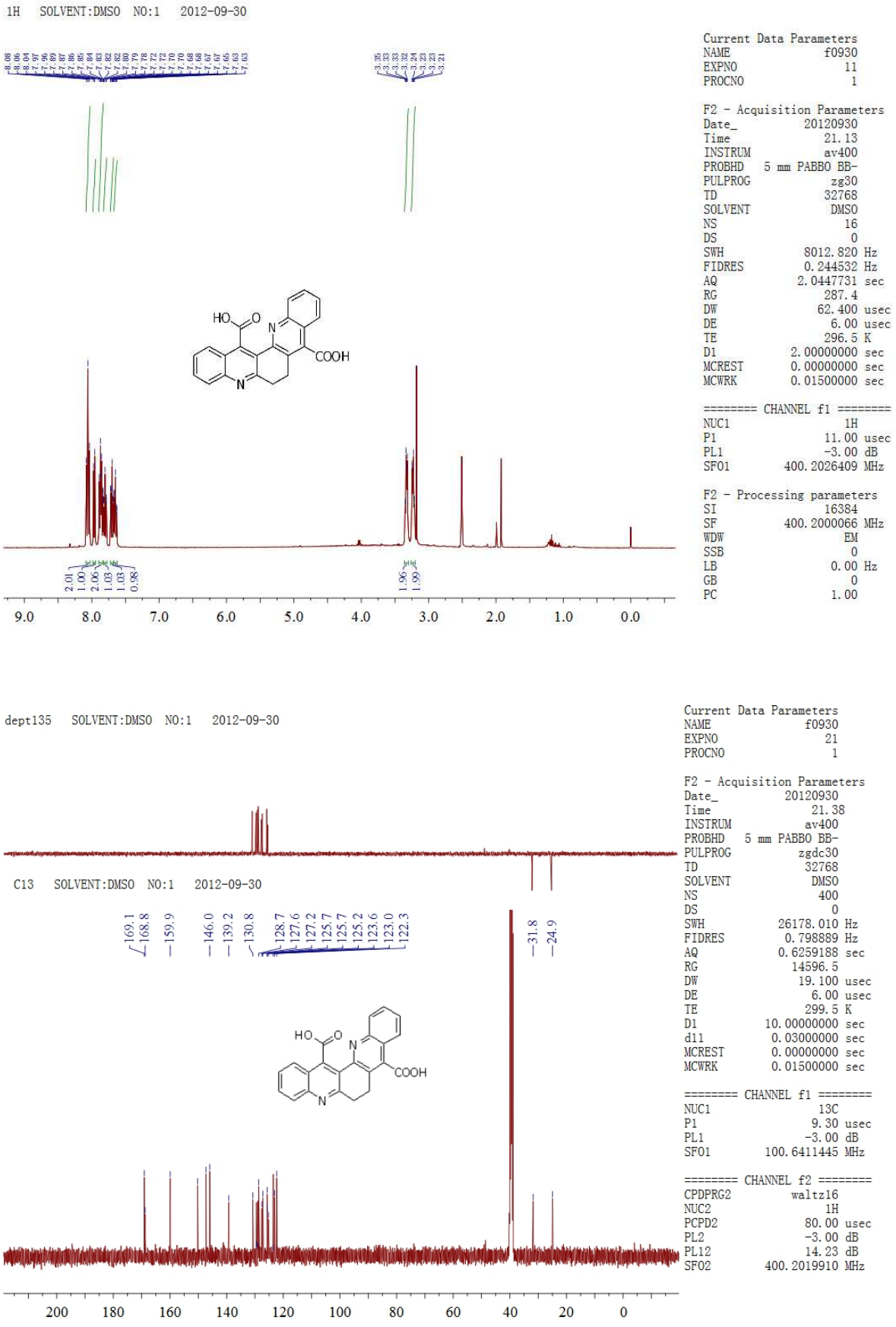
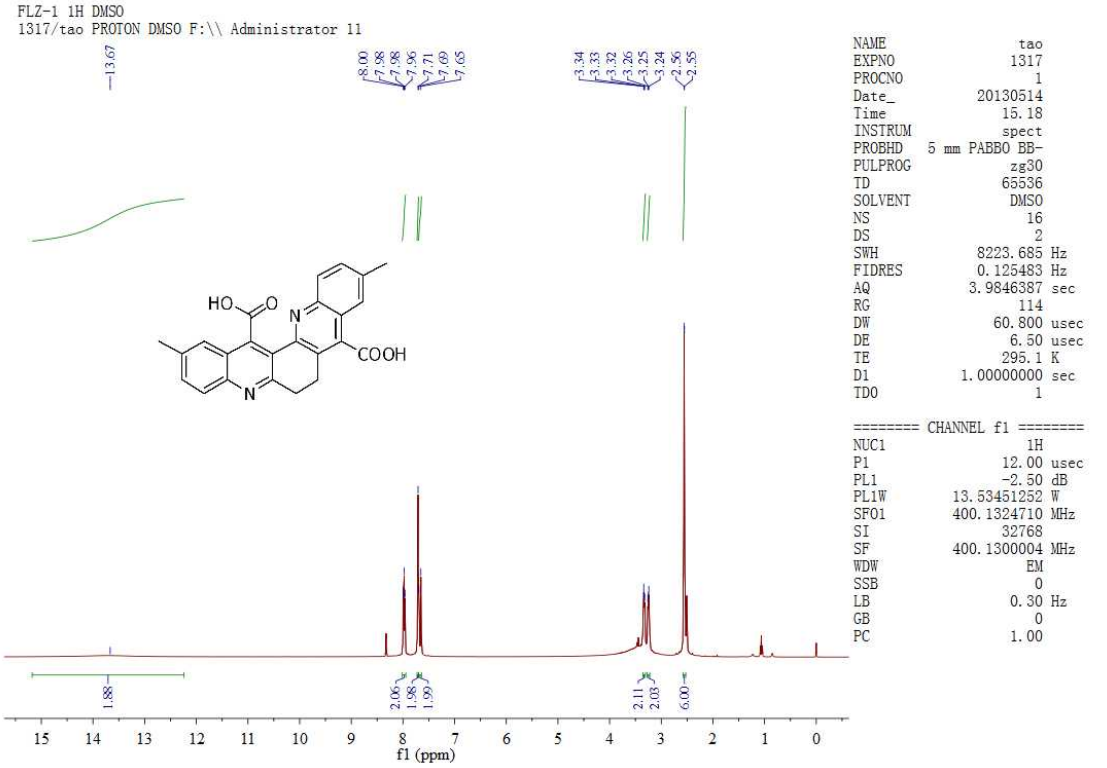


Figure S1. ^{1}H and ^{13}C NMR spectra of **5a**.



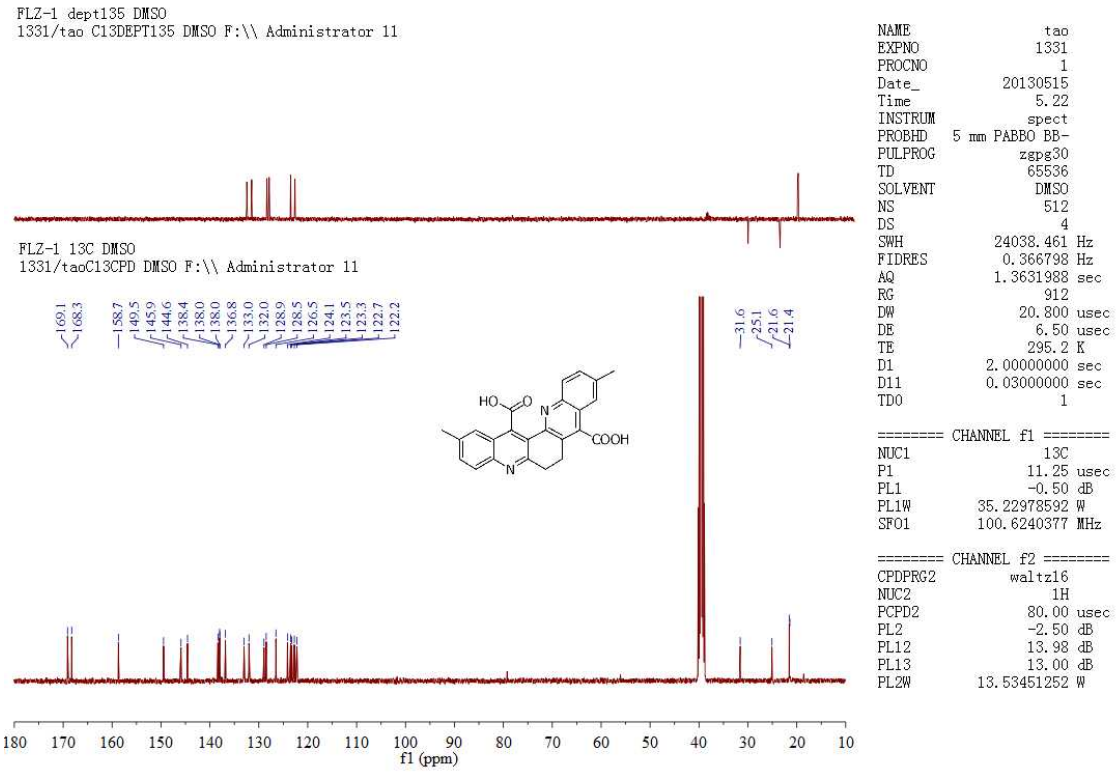
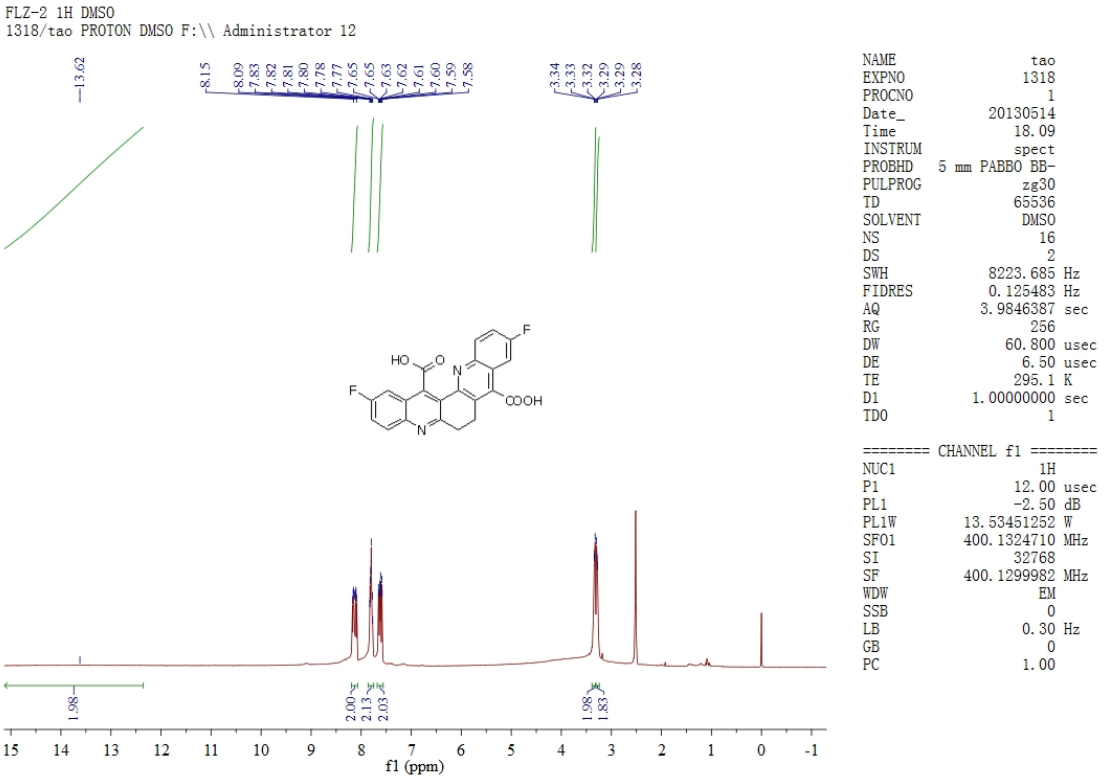


Figure S2. ^{1}H and ^{13}C NMR spectra of **5b**



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EXPNO	1318
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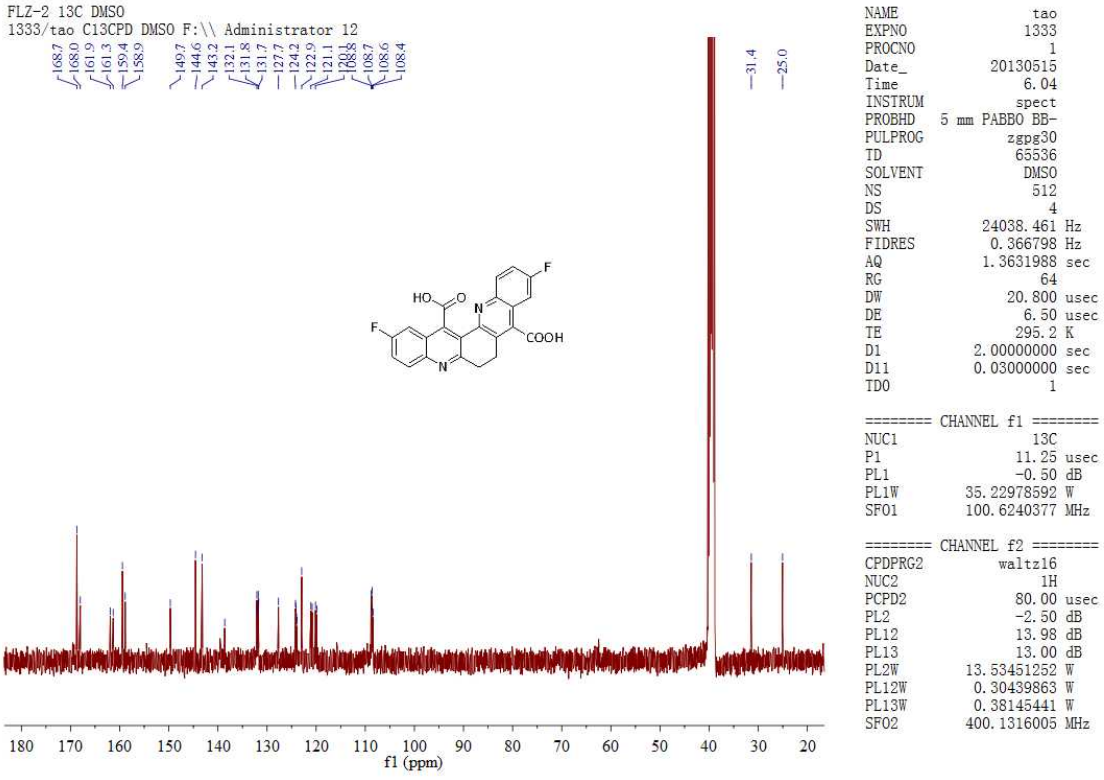
Date_	20130514
Time	18.09
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	zg30
TD	65536
SOLVENT	DMSO
NS	16
DS	2
SWH	8223.685 Hz
FIDRES	0.125483 Hz
AQ	3.9846387 sec
RG	256
DW	60.800 usec
DE	6.50 usec
TE	295.1 K
D1	1.00000000 sec
TD0	1
======== CHANNEL f1 ========	
NUC1	1H
P1	12.00 usec
PL1	-2.50 dB
PL1W	13.53451252 W
SF01	400.1324710 MHz
SI	32768
SF	400.1299982 MHz
WDW	EM
SSB	0
LB	0.30 Hz
GB	0
PC	1.00



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PROCNO	1
Date_	20130515
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INSTRUM	spect
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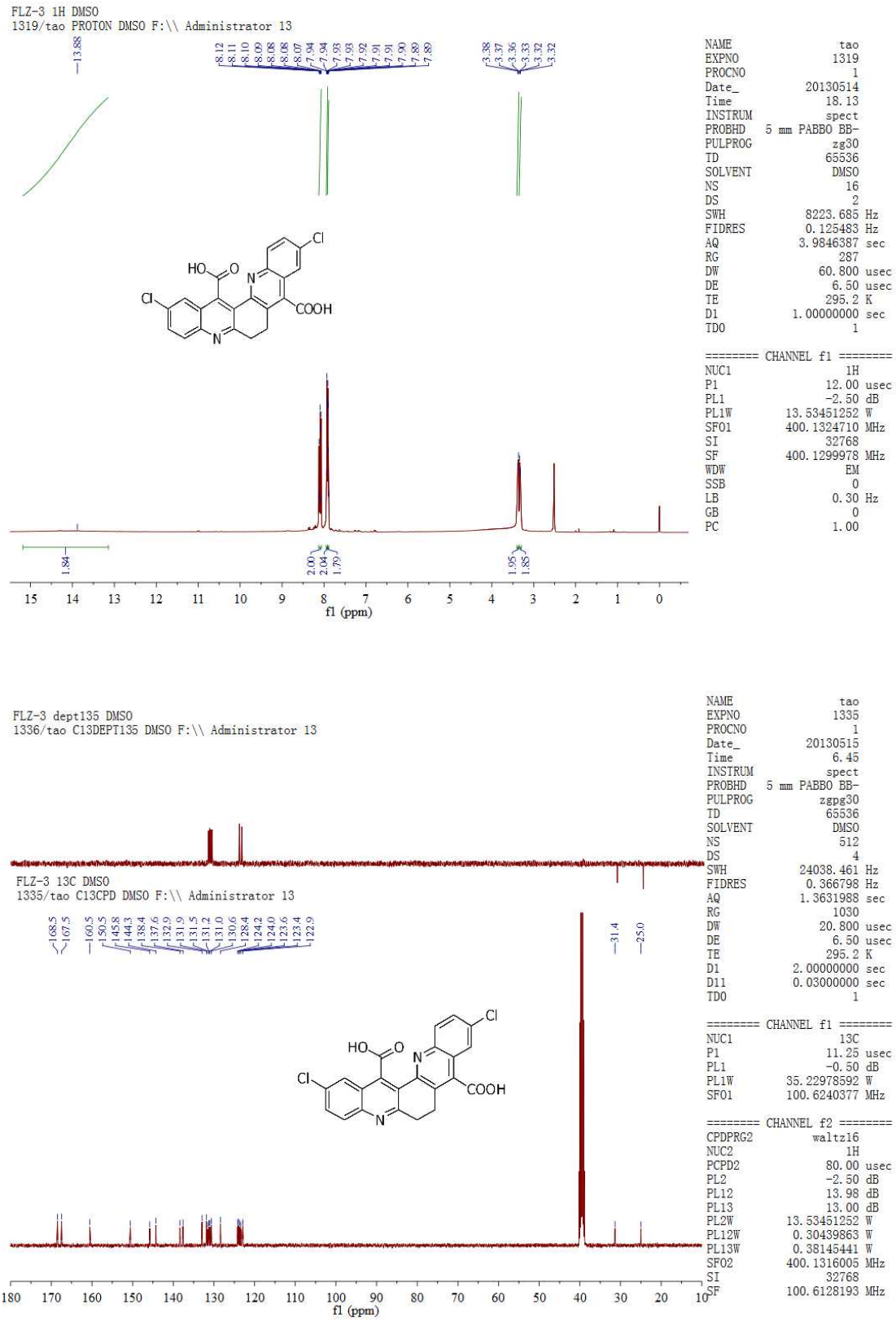
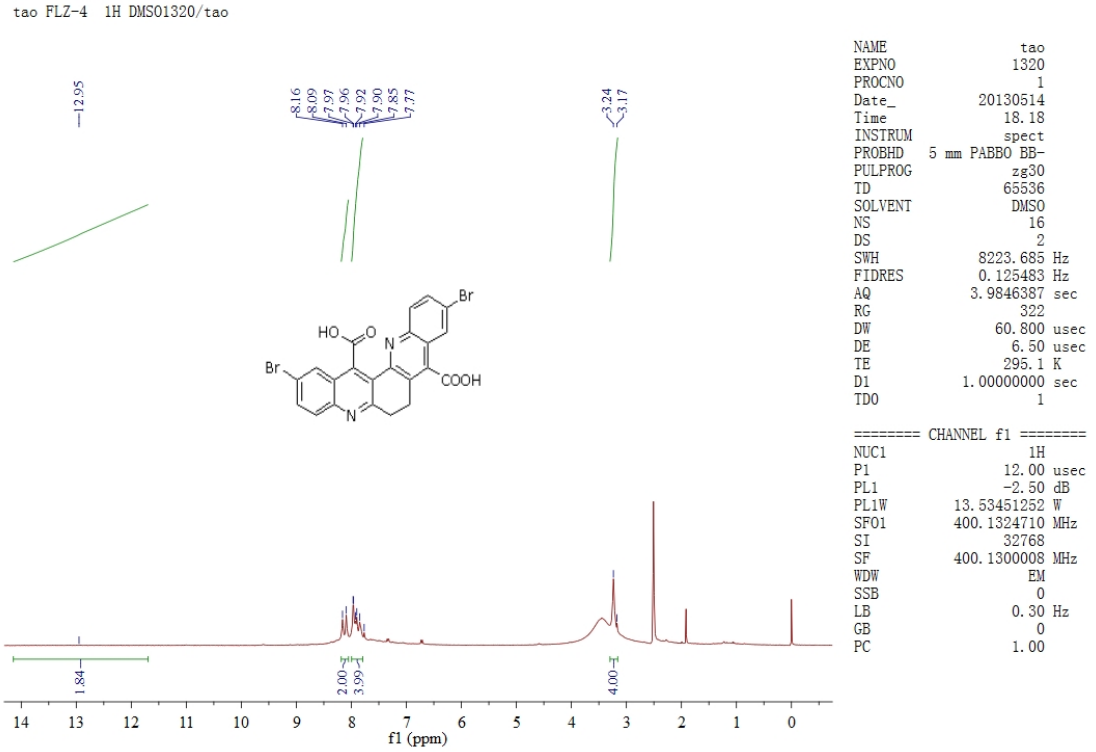
PULPROG	zgpg30
TD	65536
SOLVENT	DMSO
NS	512
DS	4
SWH	24038.461 Hz
FIDRES	0.366798 Hz
AQ	1.3631988 sec
RG	64
DW	20.800 usec
DE	6.50 usec
TE	295.2 K
D1	2.00000000 sec
D11	0.03000000 sec
TD0	1
======== CHANNEL f1 ========	
NUC1	13C
P1	11.25 usec
PL1	-0.50 dB
PL1W	35.22978592 W
SF01	100.6240377 MHz
======== CHANNEL f2 ========	
CPDPRG2	waltz16
NUC2	1H
PCPD2	80.00 usec
PL2	-2.50 dB
PL12	13.98 dB
PL13	13.00 dB
PL2W	13.53451252 W
PL12W	0.30439863 W
PL13W	0.38145441 W
SF02	400.1316005 MHz

. Figure S3. ^{1}H and ^{13}C NMR spectra of **5c**



. Figure S4. ^{1}H and ^{13}C NMR spectra of **5d**



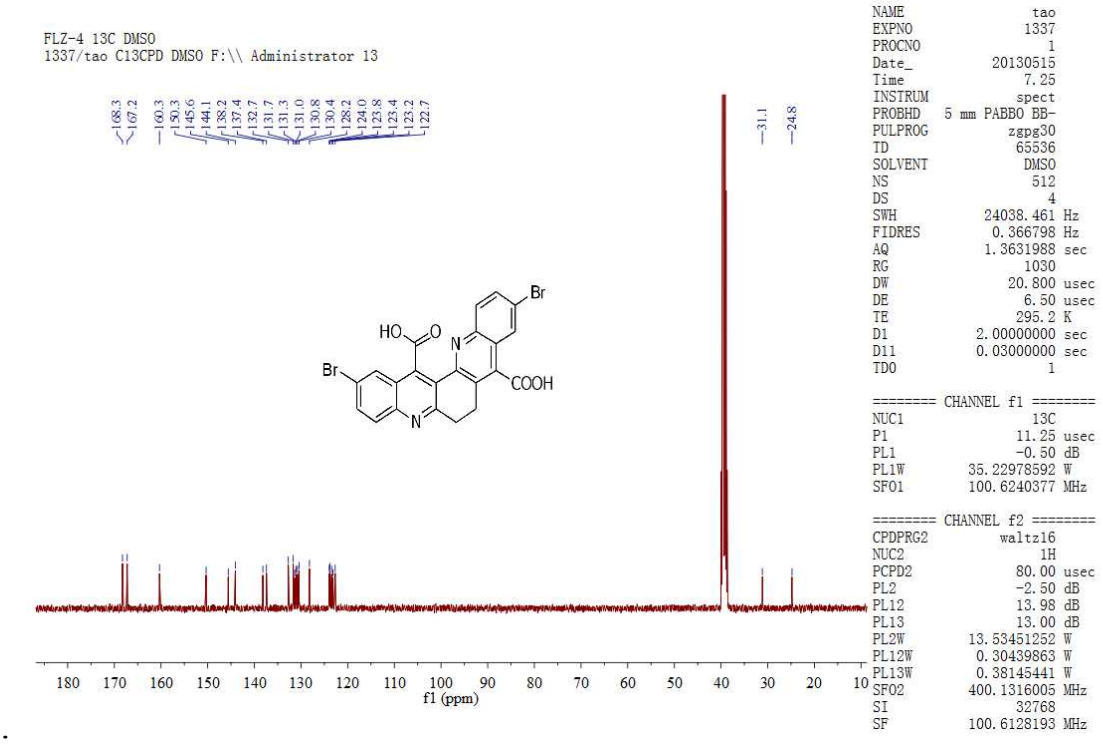
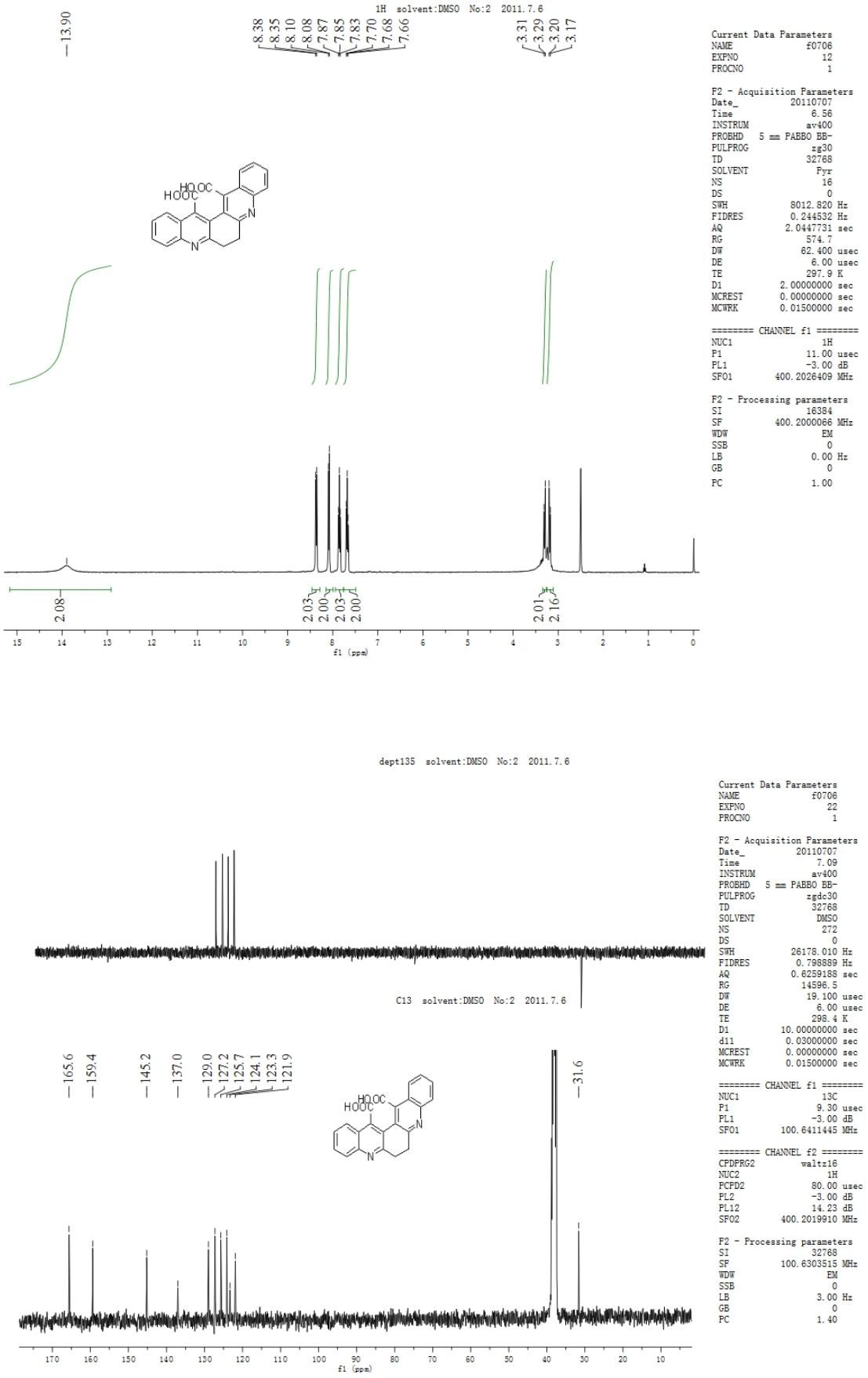


Figure S5. ^{1}H and ^{13}C NMR spectra of **5e**



. Figure S6. ^{1}H and ^{13}C NMR spectra of **6a**.

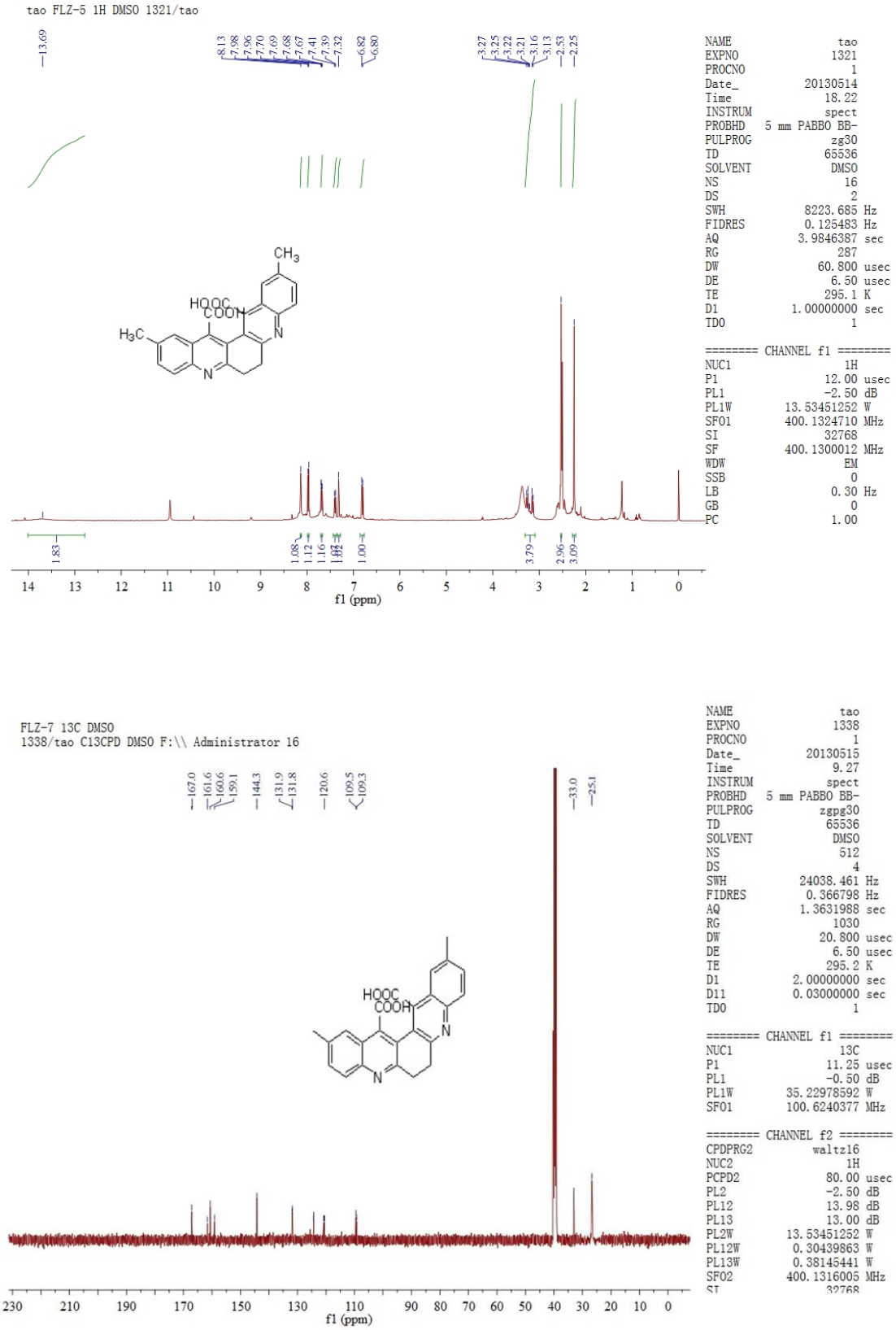
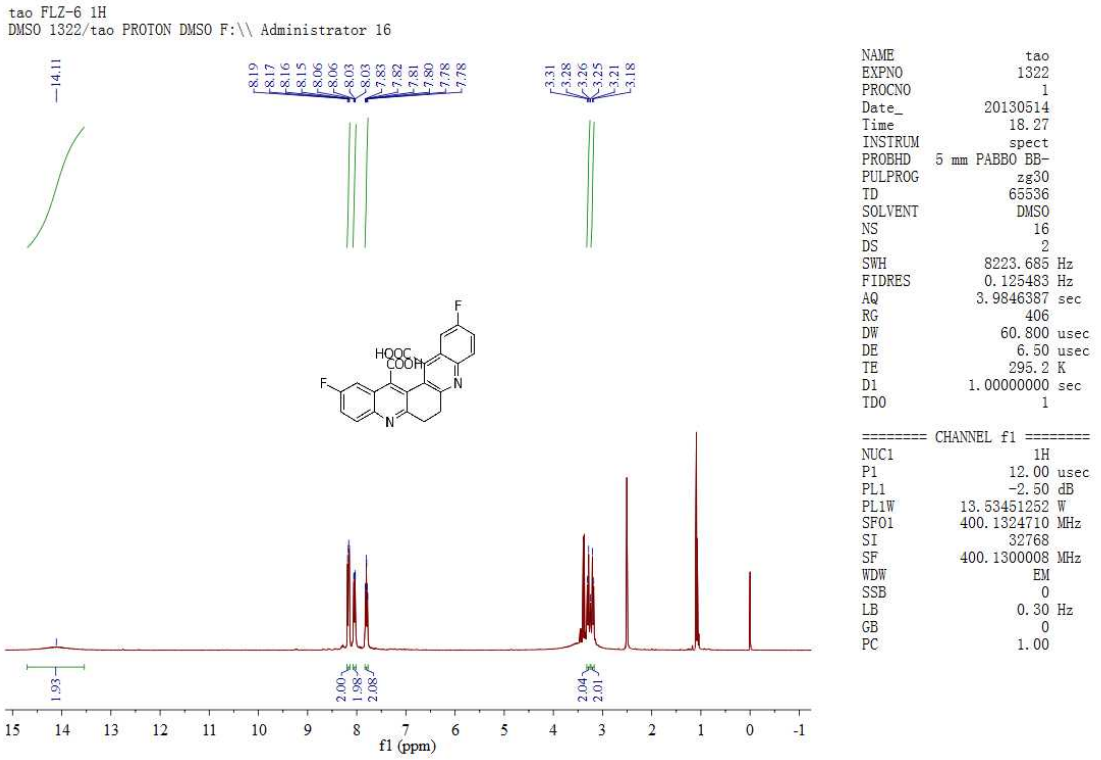


Figure S7. ^{1}H and ^{13}C NMR spectra of **6b**



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PROCNO	1
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INSTRUM	spect
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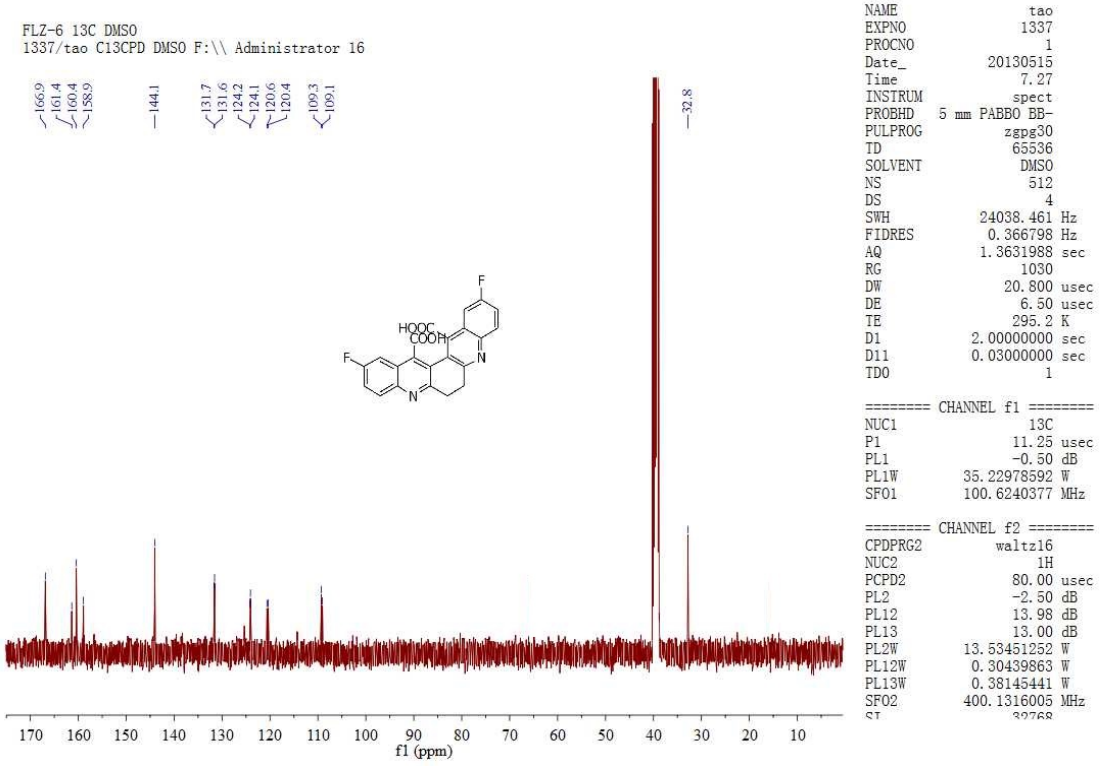
PULPROG	zg30
TD	65536
SOLVENT	DMSO
NS	16
DS	2
SWH	8223.685 Hz
FIDRES	0.125483 Hz
AQ	3.9846387 sec
RG	406
DW	60.800 usec
DE	6.50 usec
TE	295.2 K
D1	1.00000000 sec
TD0	1
======== CHANNEL f1 ========	
NUC1	1H
P1	12.00 usec
PL1	-2.50 dB
PL1W	13.53451252 W
SFO1	400.1324710 MHz
SI	32768
SF	400.1300008 MHz
WDW	EM
SSB	0
LB	0.30 Hz
GB	0
PC	1.00



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EXPNO	1337
PROCNO	1
Date_	20130515
Time	7.27
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	zgpg30
TD	65536
SOLVENT	DMSO
NS	512
DS	4
SWH	24038.461 Hz
FIDRES	0.366798 Hz
AQ	1.3631988 sec
RG	1030
DW	20.800 usec
DE	6.50 usec
TE	295.2 K
D1	2.00000000 sec
D11	0.03000000 sec
TD0	1
======== CHANNEL f1 ========	
NUC1	13C
P1	11.25 usec
PL1	-0.50 dB
PL1W	35.22978592 W
SFO1	100.6240377 MHz
======== CHANNEL f2 ========	
CPDPRG2	waltz16
NUC2	1H
PCPD2	80.00 usec
PL2	-2.50 dB
PL12	13.98 dB
PL13	13.00 dB
PL2W	13.53451252 W
PL12W	0.30439863 W
PL13W	0.38145441 W
SFO2	400.1316005 MHz
SI	32768

Figure S8. ^{1}H and ^{13}C NMR spectra of **6c**.

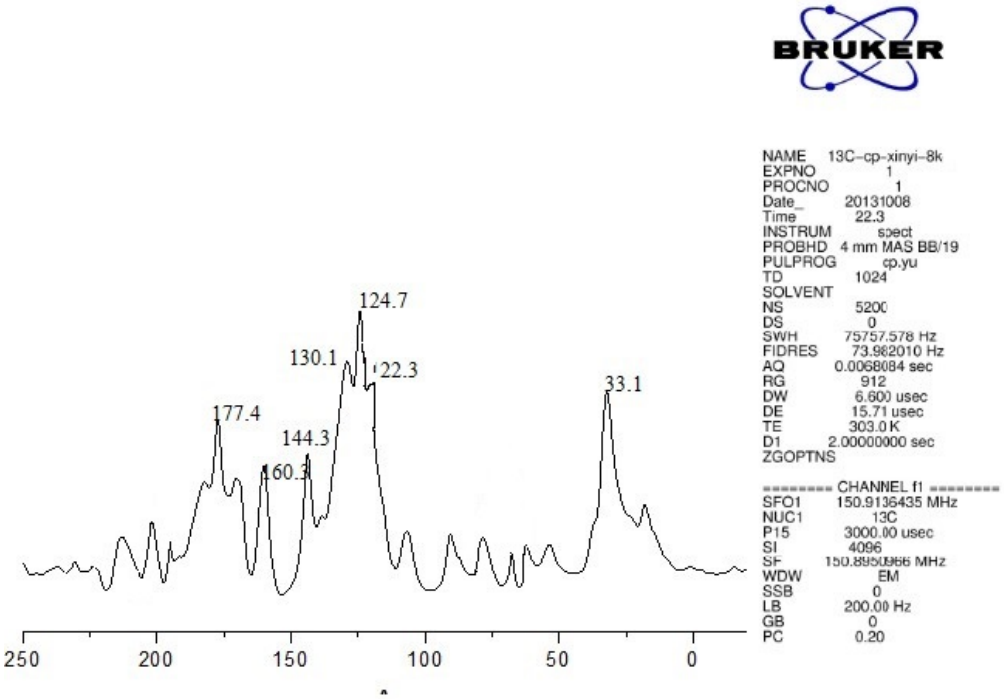

Figure S9 ^{13}C CP/MAS NMR spectra of **6d**.

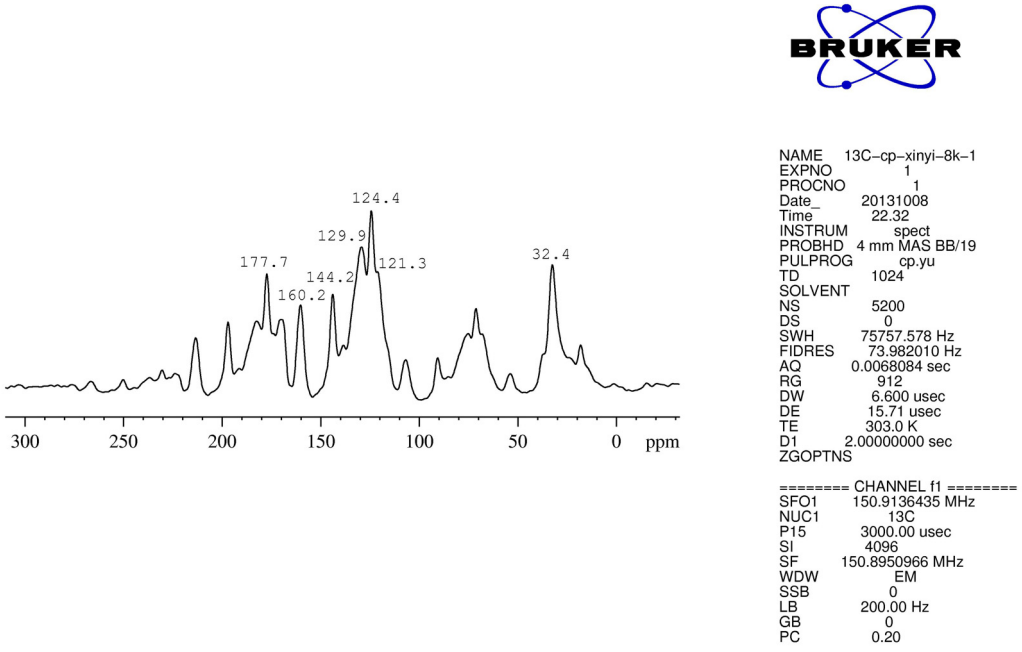

Figure S10 ^{13}C CP/MAS NMR spectra of **6e**.