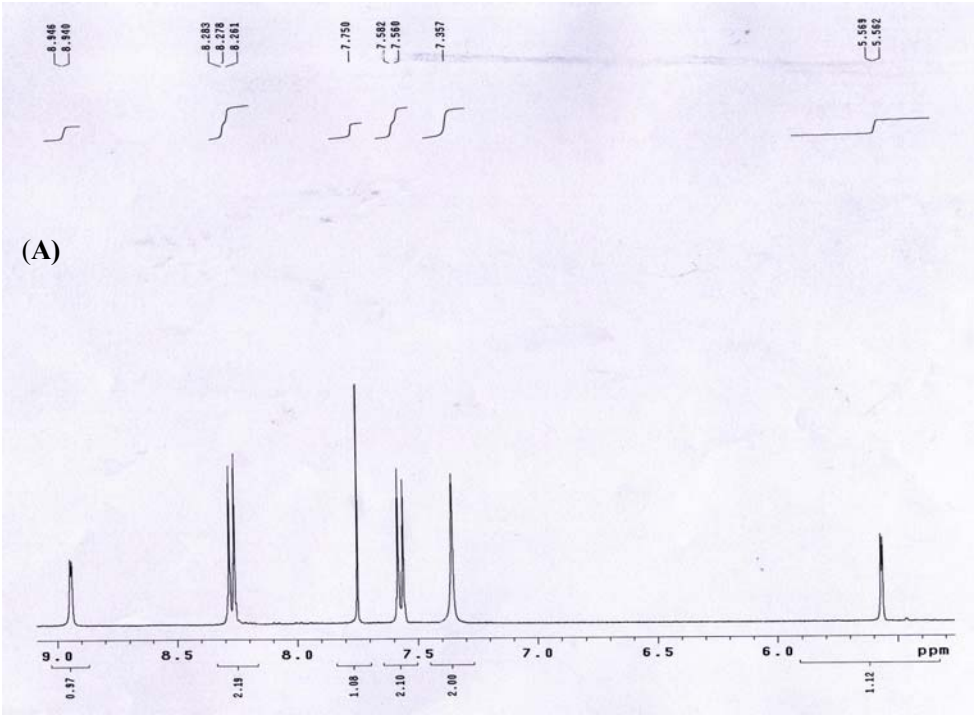
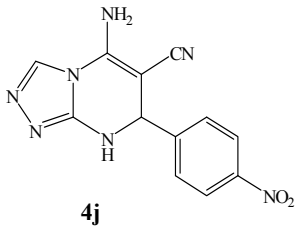
Supplementary Materials

Figure S1: The D_2O exchange experiment for product **4j**. (**A**) Partial enlarged ^{1}H-NMR spectrum of **4j** in DMSO-d_6; (**B**) Partial enlarged ^{1}H-NMR spectrum of **4j** in DMSO-d_6 + **D_2O**.





4j

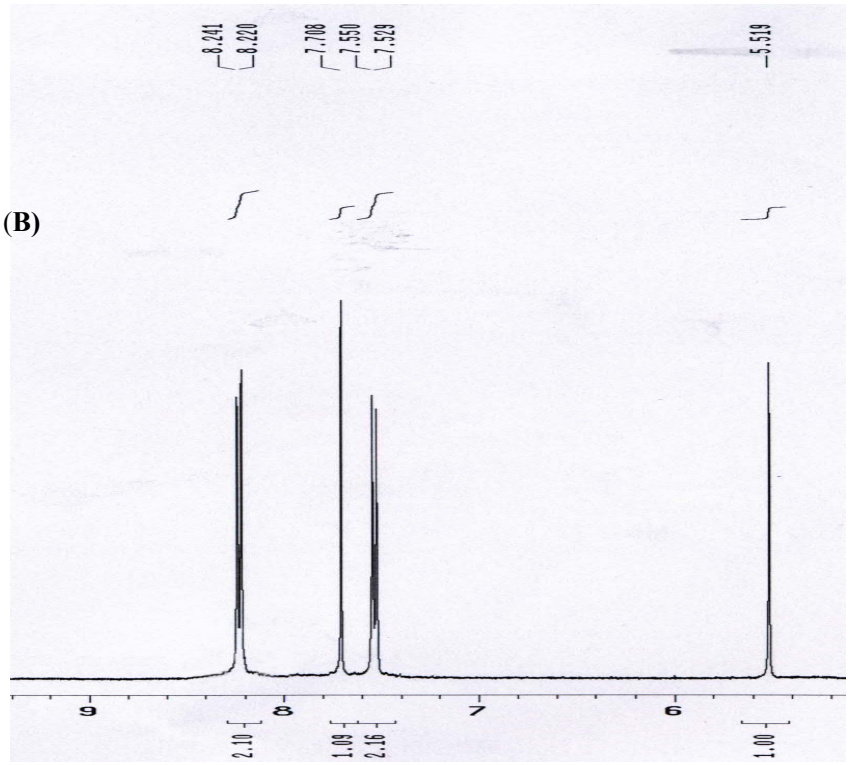


Figure S2. (A) The ^{13}C NMR spectrum of compound 4a in DMSO; (B) The DEPT ^{13}C NMR spectrum of compound 4a in DMSO.

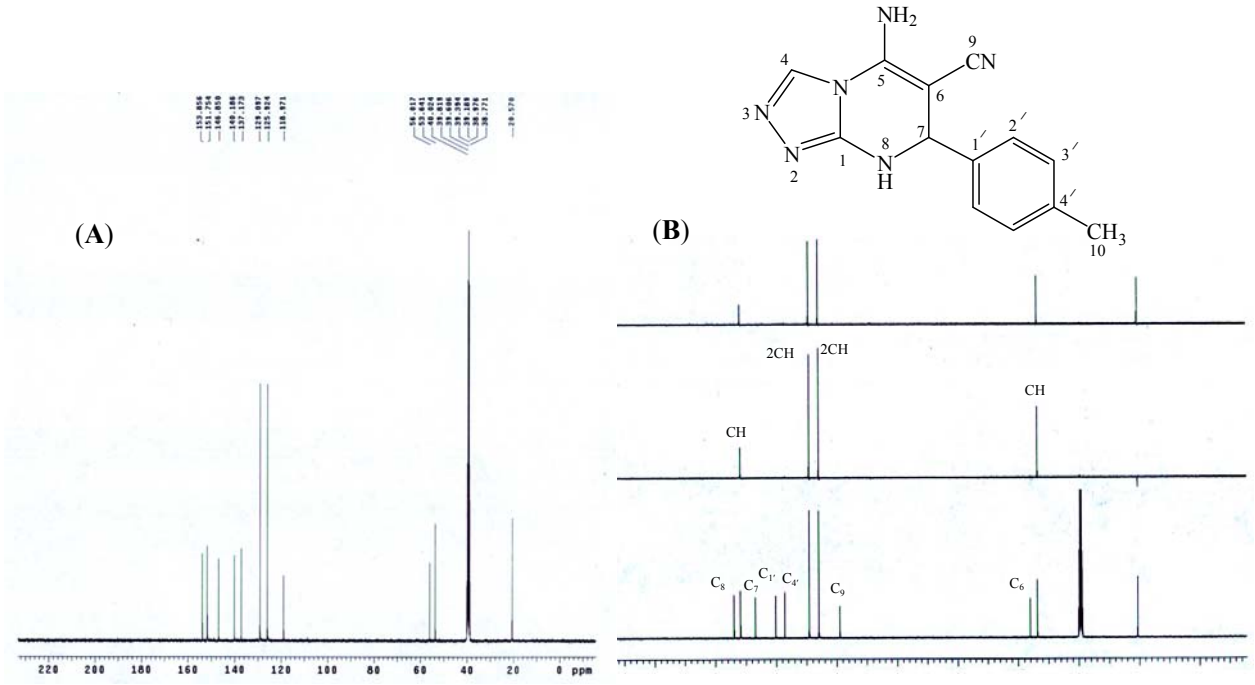
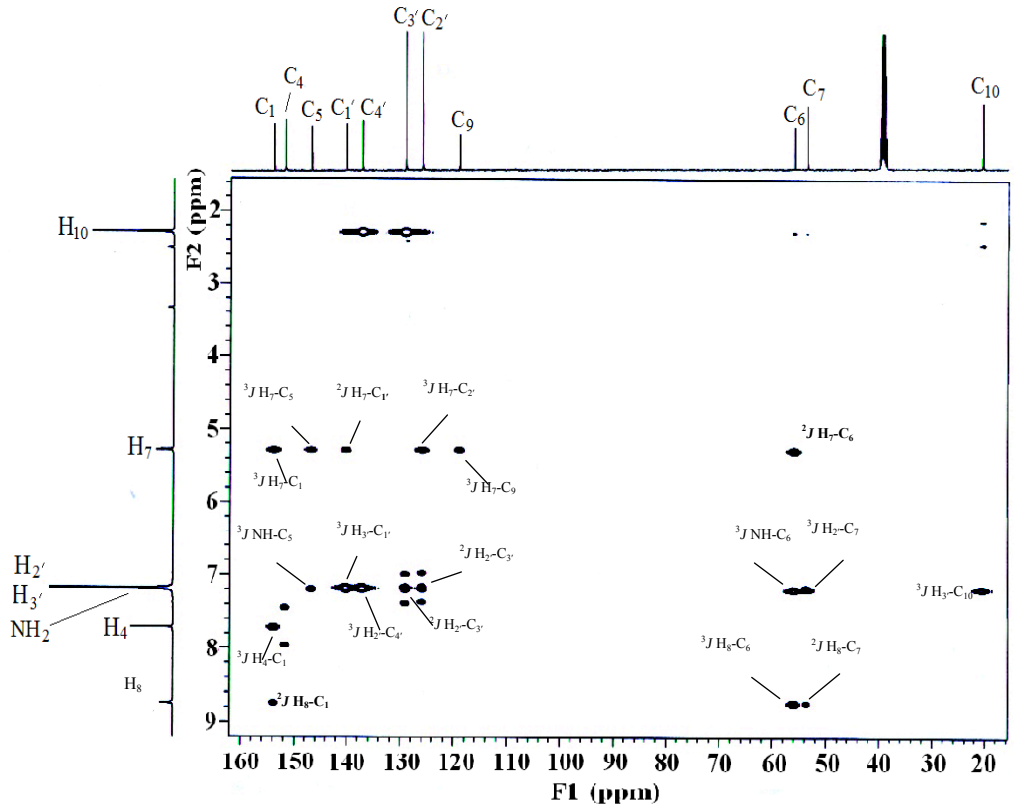
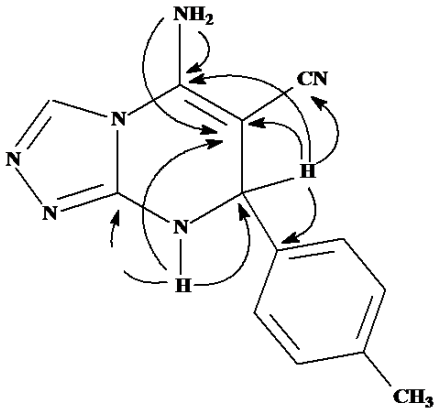


Figure S3. (**A**) The 2-D ^{1}H-^{13}C gHMBC NMR spectrum of compound **4a** in DMSO; (**B**) HMBC correlation with ^{1}H and ^{13}C NMR of **4a**.



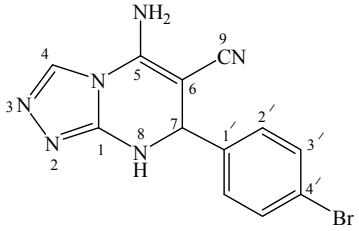
(A)

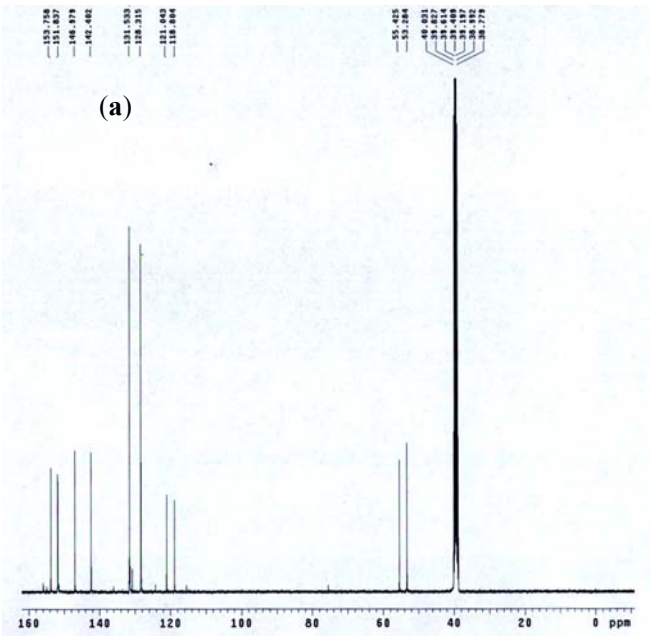
Figure S3. *Cont.*



(**B**)

Figure S4. (**a**) The ^{13}C NMR spectrum of compound **4f** in DMSO; (**b**) The DEPT ^{13}C NMR spectrum of compound **4f** in DMSO.





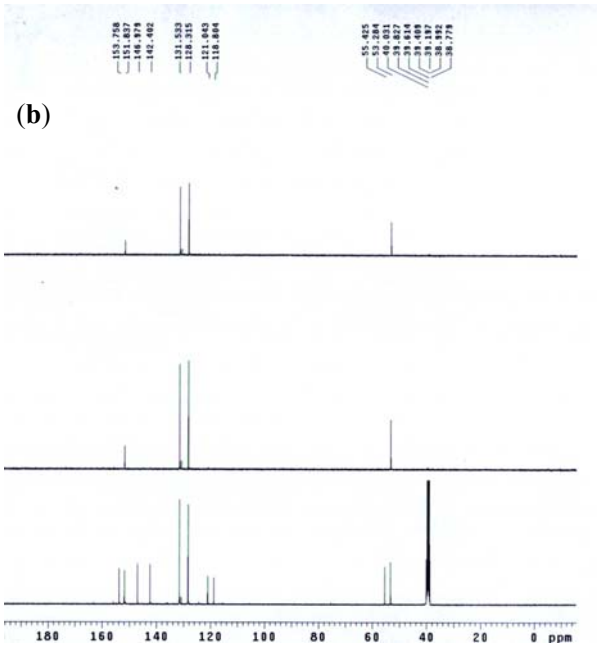
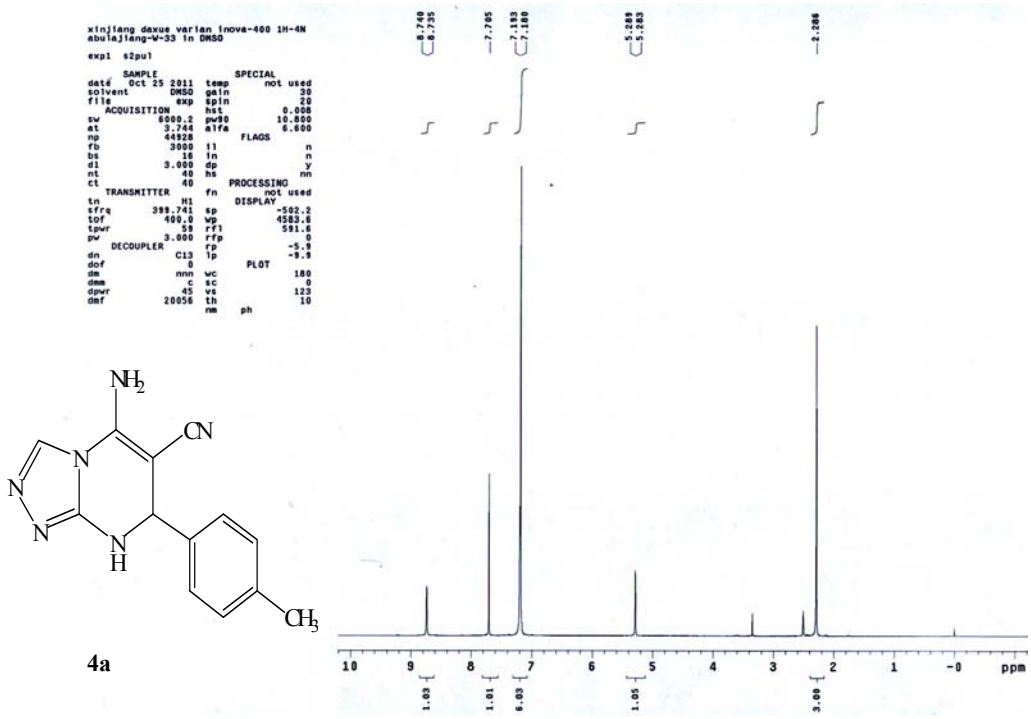
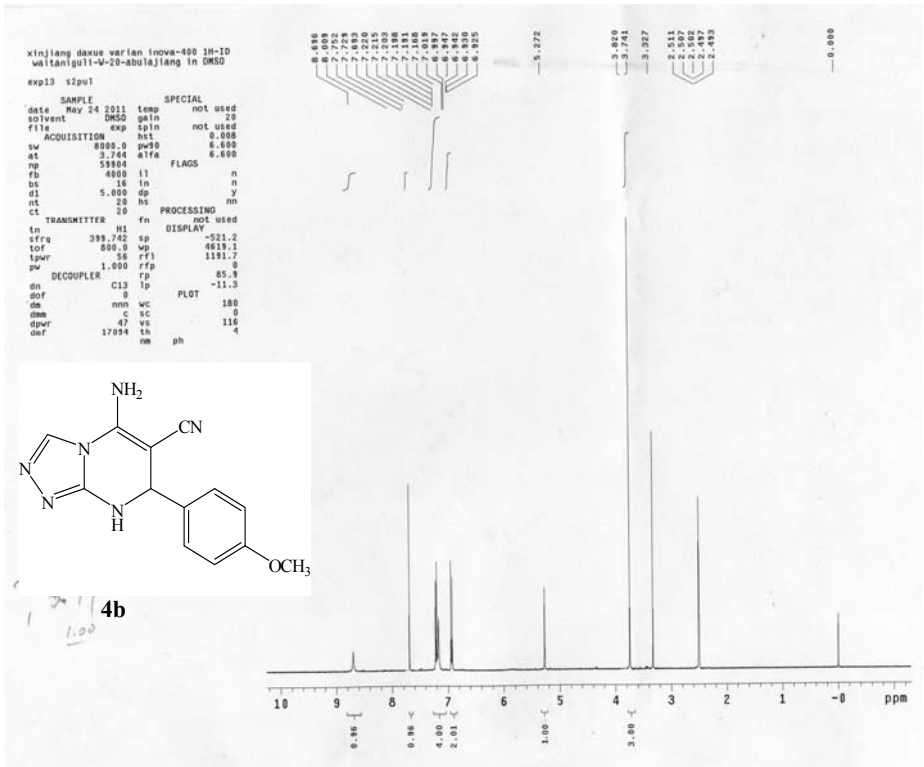


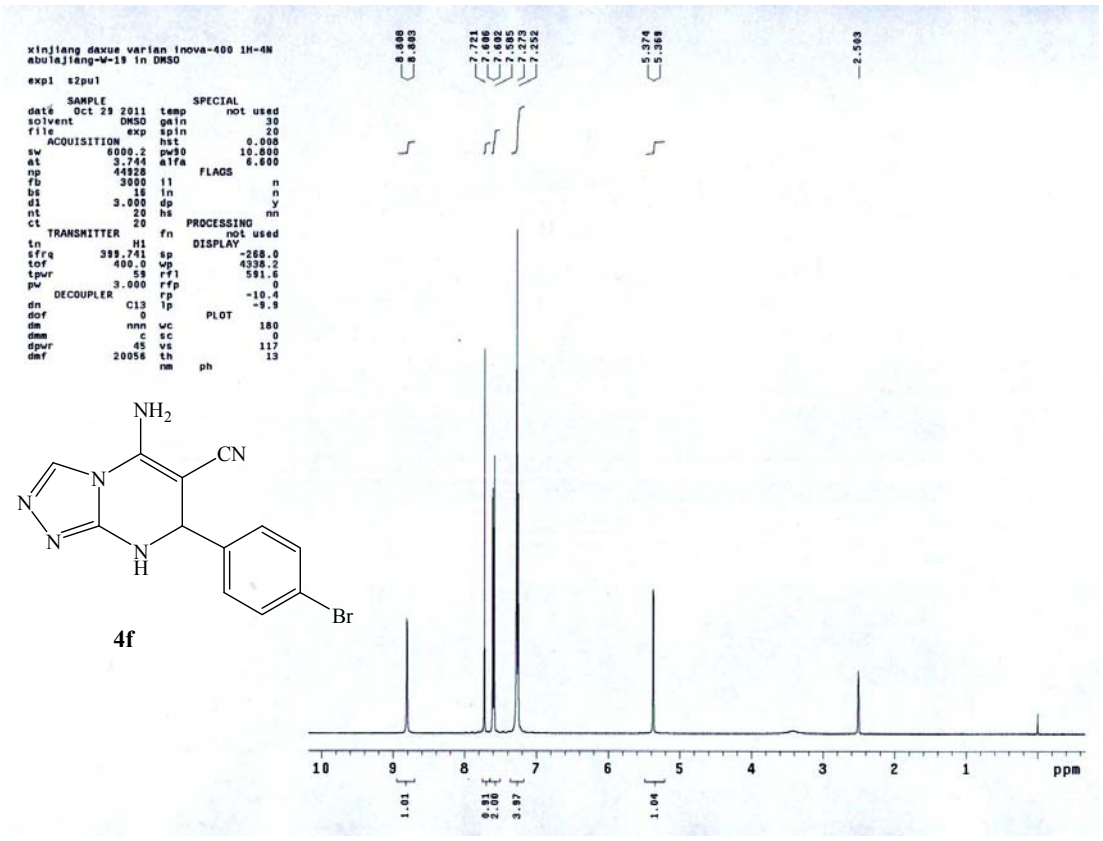
Figure S5. ^{1}H NM spectra of products; (**A**) ^{1}H-NMR spectrum of **4a**; (**B**) ^{1}H-NMR spectrum of **4b**; (**C**) ^{1}H-NMR spectrum of **4f**; (**D**) ^{1}H-NMR spectrum of **4g**; (**E**) ^{1}H-NMR spectrum of **4h**; (**F**) Partial enlarged spectrum of **4h**; (**G**) ^{1}H-NMR spectrum of **4i**; (**H**) ^{1}H-NMR spectrum of **4j**; (**I**) Partial enlarged spectrum of **4j**; (**J**) ^{1}H-NMR spectrum of **4j**; (**K**) ^{1}H-NMR spectrum of **4k**; (**L**) Partial enlarged spectrum of **4k**; (**M**) ^{1}H-NMR spectrum of **4l**; (**N**) ^{1}H-NMR spectrum of **4m**.



(**A**)



(**B**)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solvent DMSO
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nt 20
ct 20
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tpwr 59
pw 3.000
DECOUPLER
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dm nnn
dmm c
dpwr 45
dmf 20056
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spin 20
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pw90 10.800
alfa 6.600
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in n
dp y
hs nn
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7.462
7.385
7.273
7.252
5.374
5.369
2.543
NH2
CN
N
N
N
H
Br
10
9
8
7
6
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4
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2
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ppm
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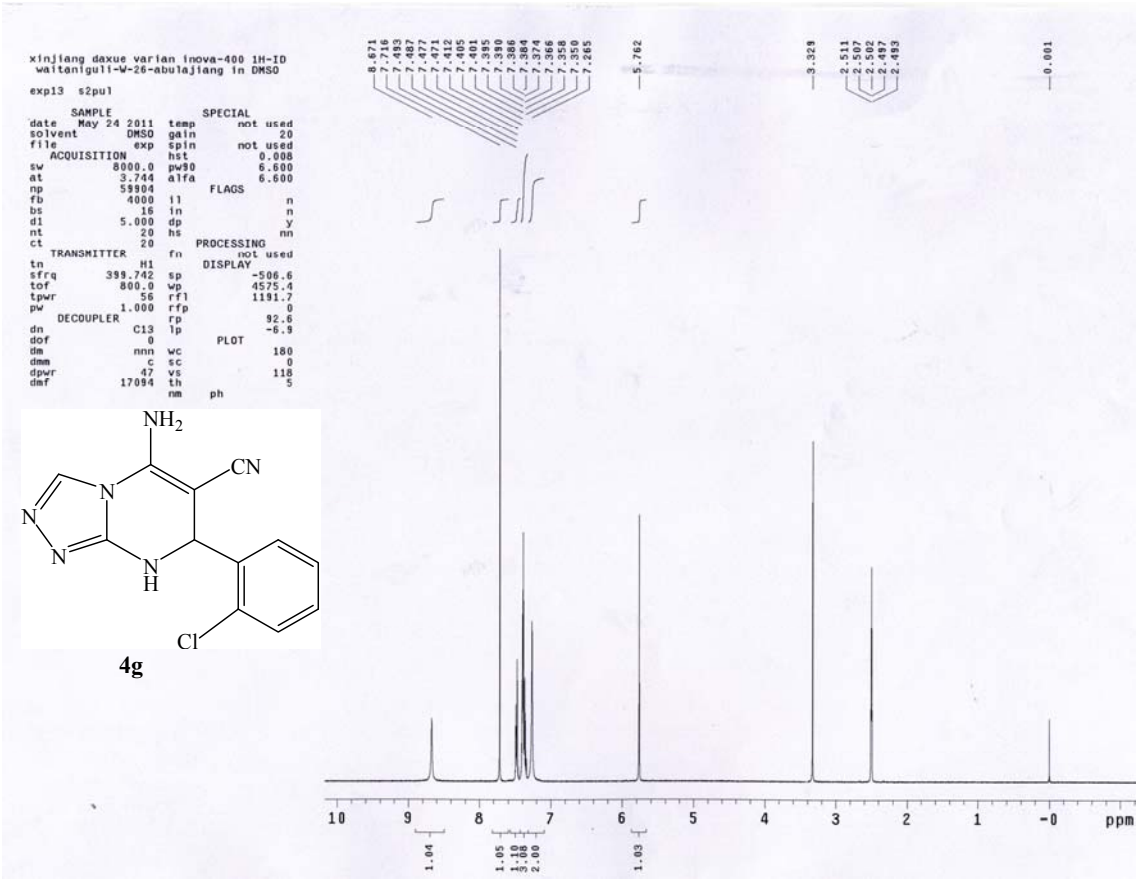
0.91
2.00
3.97
1.04

4f

(**C**)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exp13 s2pul
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date May 24 2011
solvent DMSO
file exp
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d1 5.000
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ct 20
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sfrq 399.742
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pw 1.000
DECOUPLER
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dof 0
dm nnn
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dmf 17094
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spin not used
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alfa 6.600
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in n
dp y
hs nn
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7.412
7.405
7.401
7.395
7.390
7.386
7.384
7.374
7.366
7.358
7.350
7.265
5.762
3.329
2.511
2.507
2.502
2.497
2.493
0.001
NH2
CN
N
N
N
H
Cl
10
9
8
7
6
5
4
3
2
1
-0
ppm
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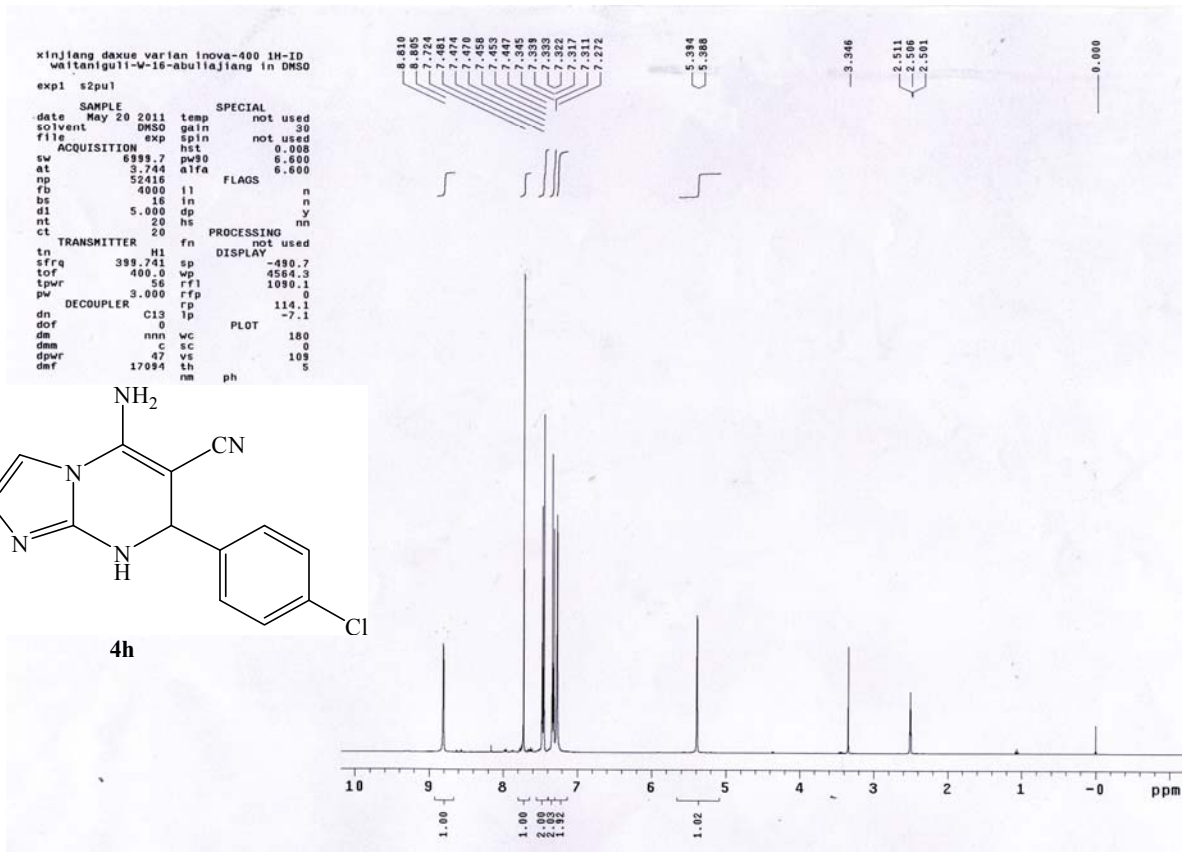
1.05
1.10
3.08
2.00
1.03

4g

(**D**)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exp1 s2pul
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date May 20 2011
solvent DMSO
file exp
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ct 20
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pw 3.000
DECOUPLER
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dof 0
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dmm c
dpwr 47
dmf 17094
SPECIAL
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gain 30
spin not used
hst 0.008
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alfa 6.600
FLAGS
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in n
dp y
hs nn
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sc 0
vs 109
th 5
nm ph
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8.805
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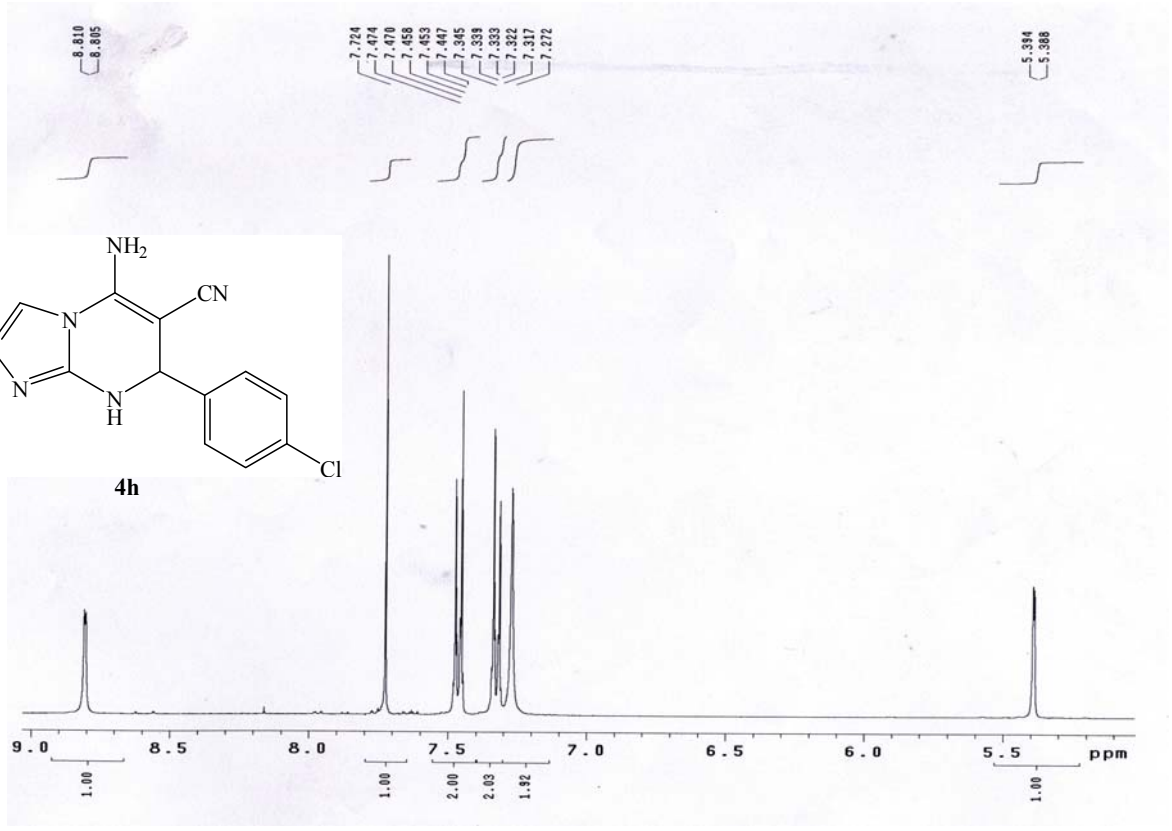
7.481
7.474
7.470
7.458
7.453
7.447
7.345
7.339
7.333
7.322
7.317
7.311
7.272
5.394
5.388
3.346
2.511
2.506
2.501
0.000
NH2
CN
N
N
N
H
Cl
4h
10
9
8
7
6
5
4
3
2
1
-0
ppm
1.00
1.00
2.00
2.03
1.92
1.02

(**E**)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8.805
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7.470
7.458
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7.339
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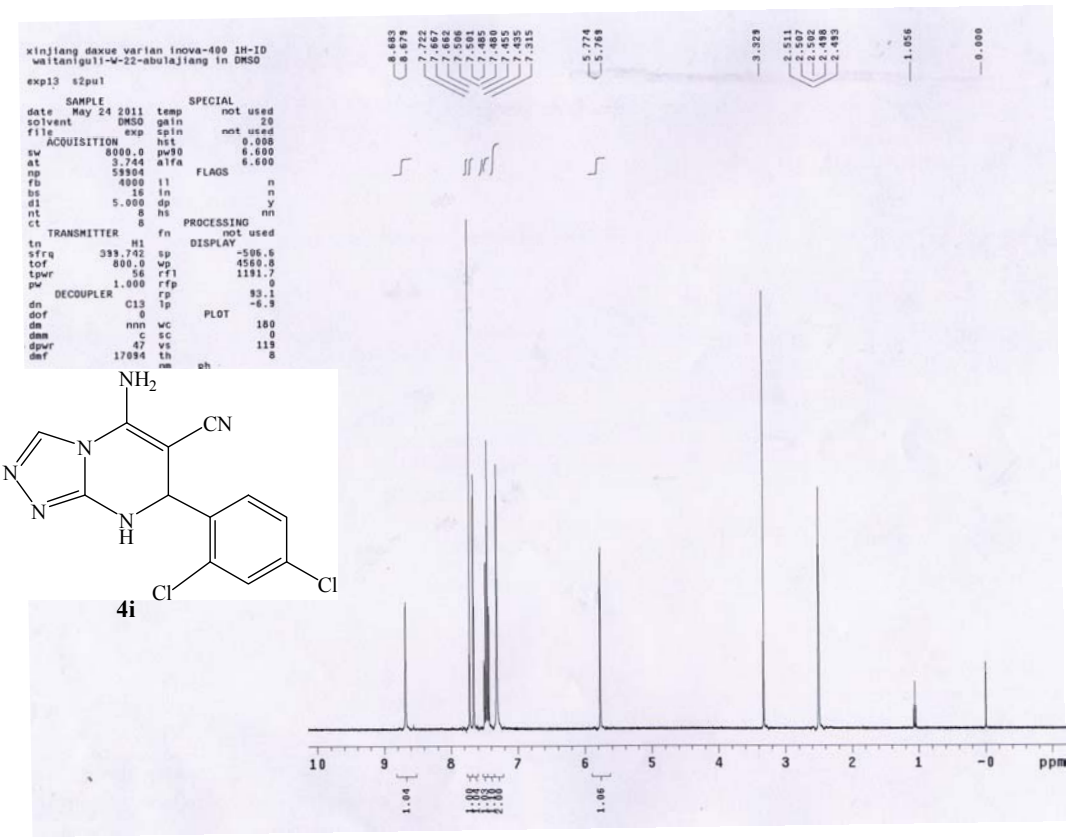
7.317
7.272
5.394
5.388
NH2
CN
N
N
N
H
Cl
4h
9.0
8.5
8.0
7.5
7.0
6.5
6.0
5.5
ppm
1.00
1.00
2.00
2.03
1.92
1.00

(**F**)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exp13 s2pul
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date May 24 2011
solvent DMSO
file exp
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at 3.744
np 59904
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d1 5.000
nt 8
ct 8
TRANSMITTER
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sfrq 399.742
tof 800.0
tpwr 56
pw 1.000
DECOUPLER
dn C13
dof 0
dm nnn
dmm c
dpwr 47
dmf 17094
SPECIAL
temp not used
gain 20
spin not used
hst 0.008
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alfa 6.600
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in n
dp y
hs nn
PROCESSING
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rp 93.1
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PLOT
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sc 0
vs 119
th 8
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8.679
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7.667
7.662
7.506
7.501
7.485
7.480
7.455
7.435
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5.774
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2.507
2.502
2.498
2.493
1.056
0.000
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CN
N
N
N
H
Cl
Cl
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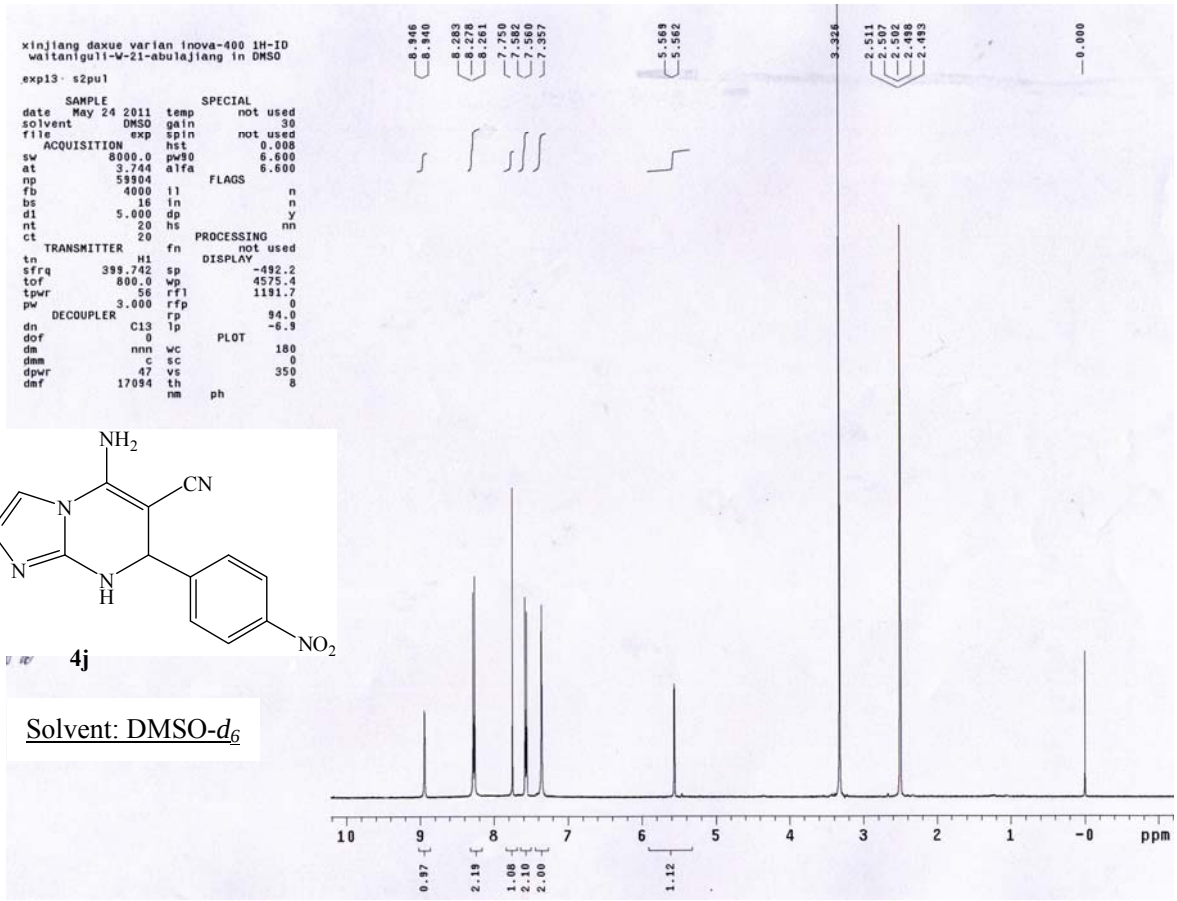
1.06

(**G**)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solvent DMSO
file exp
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sfrq 399.742
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pw 3.000
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dmf 17094
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spin not used
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alfa 6.600
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dp y
hs nn
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nm ph
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8.278
8.261
7.750
7.582
7.560
7.357
5.569
5.562
3.326
2.511
2.507
2.502
2.498
2.493
0.000
NH2
CN
N
N
N
H
NO2
4j
Solvent: DMSO-d_6
10
9
8
7
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2
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ppm
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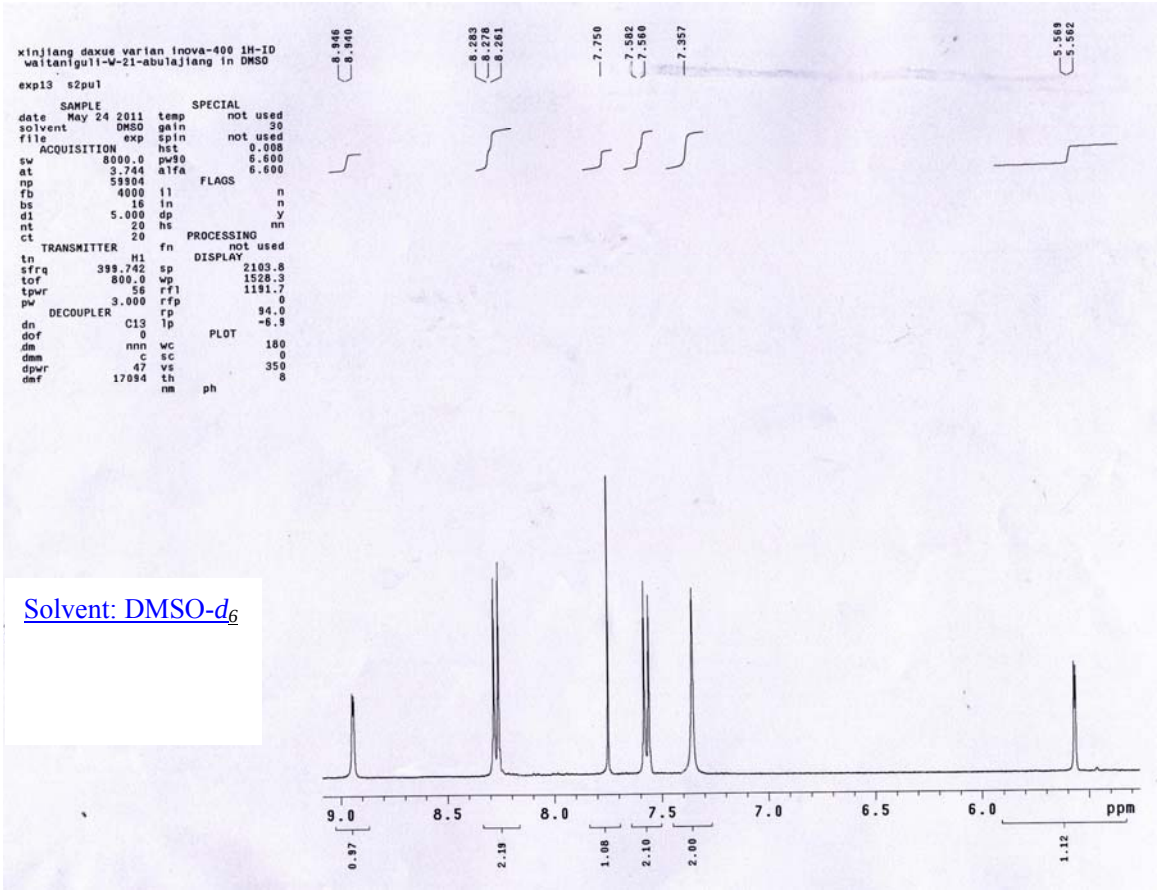
(**H**)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waitanguli-W-21-abulajiang in DMSO
exp13 s2pul
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date May 24 2011
solvent DMSO
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d1 5.000
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ct 20
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tn H1
sfrq 399.742
tof 800.0
tpwr 56
pw 3.000
DECOUPLER
dn C13
dof 0
dm nnn
dmm c
dpwr 47
dmf 17094
SPECIAL
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gain 30
spin not used
hst 0.008
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alfa 6.600
FLAGS
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in n
dp y
hs nn
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wp 1528.3
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rp 94.0
lp -6.9
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sc 0
vs 350
th 8
nm ph
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8.261
7.750
7.582
7.560
7.357
5.569
5.562
Solvent: DMSO-d6
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8.5
8.0
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6.5
6.0
ppm
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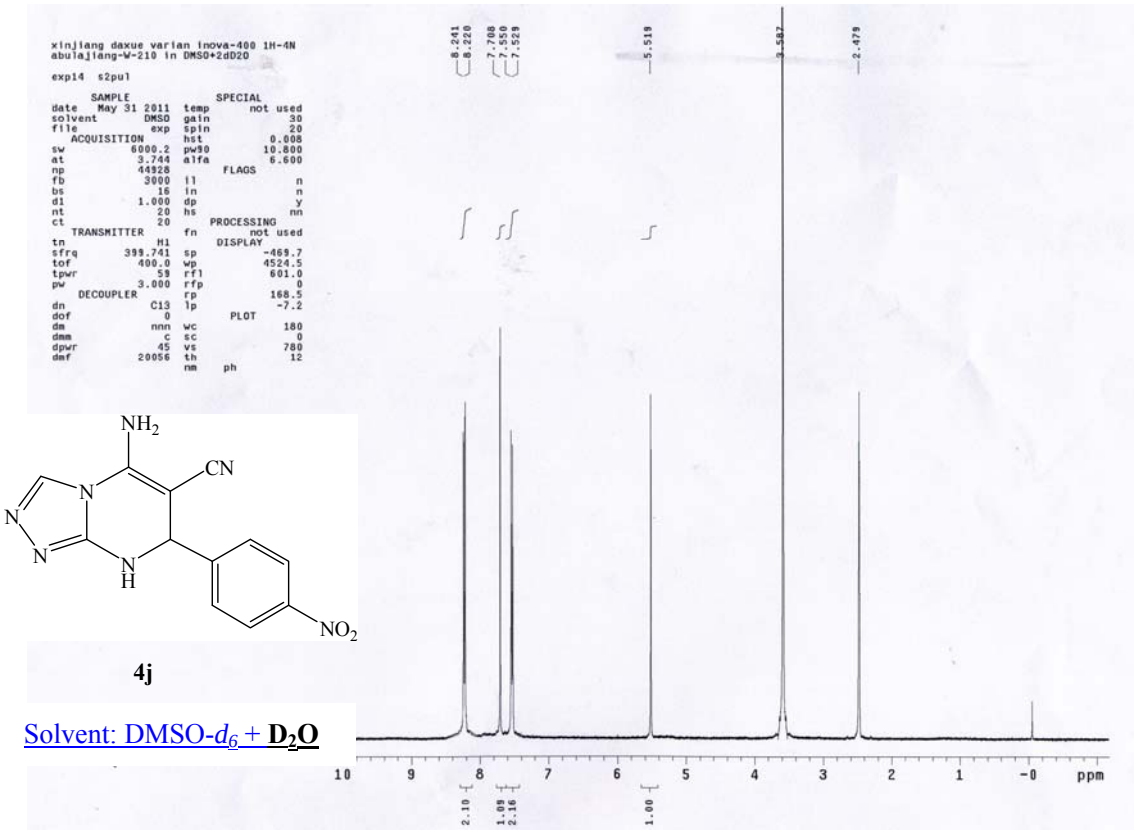
2.19
1.08
2.10
2.00
1.12

(I)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abulajiang-W-210 in DMSO+2dD2O
exp14 s2pul
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date May 31 2011
solvent DMSO
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ct 20
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sfrq 399.741
tof 400.0
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pw 3.000
DECOUPLER
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dof 0
dm nnn
dmm c
dpwr 45
dmf 20056
SPECIAL
temp not used
gain 30
spin 20
hst 0.008
pw90 10.800
alfa 6.600
FLAGS
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in n
dp y
hs nn
PROCESSING
fn not used
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rf1 601.0
rfp 0
rp 168.5
lp -7.2
PLOT
wc 180
sc 0
vs 780
th 12
nm ph
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8.220
7.708
7.550
7.529
5.519
3.587
2.479
NH2
CN
N
N
N
H
NO2
4j
Solvent: DMSO-d6 + D2O
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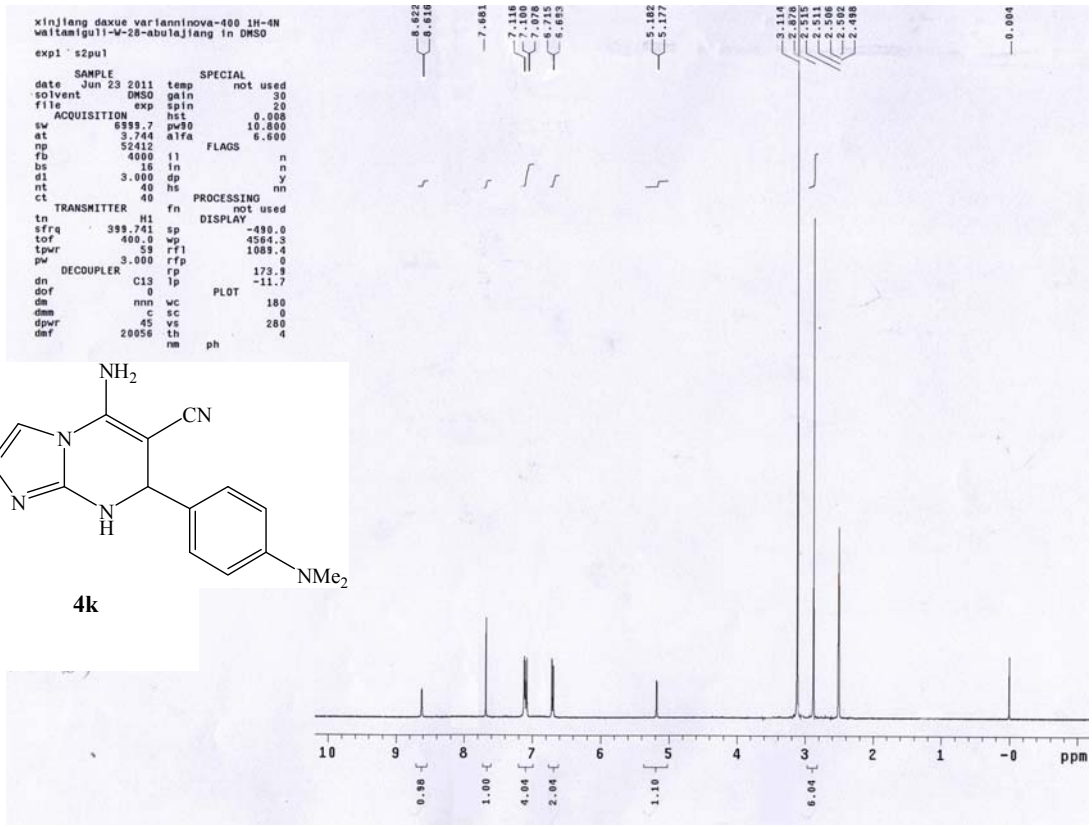
1.00

(J)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SAMPLE
date Jun 23 2011
solvent DMSO
file exp
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tn H1
sfrq 399.741
tof 400.0
tpwr 59
pw 3.000
DECOUPLER
dn C13
dof 0
dm nnn
dmm c
dpwr 45
dmf 20056
SPECIAL
temp not used
gain 30
spin 20
hst 0.008
pw90 10.800
alfa 6.600
FLAGS
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in n
dp y
hs nn
PROCESSING
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lp -11.7
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sc 0
vs 280
th 4
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7.100
7.078
6.715
6.693
5.182
5.177
3.114
3.076
2.515
2.511
2.506
2.502
2.498
0.004
NH2
CN
N
N
N
H
NMe2
4k
10
9
8
7
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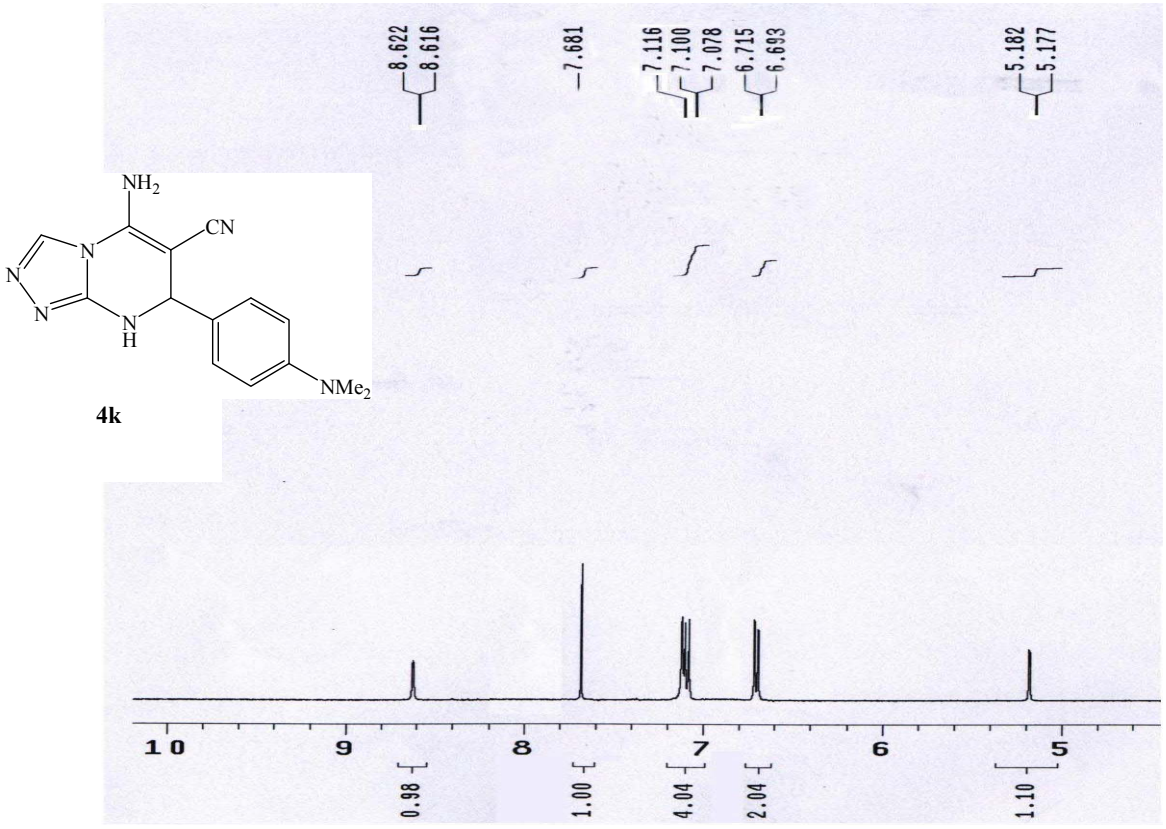
4.04
2.04
1.10
6.04

(**K**)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5.177
NH2
CN
N
N
N
H
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4k
10
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7
6
5
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4.04
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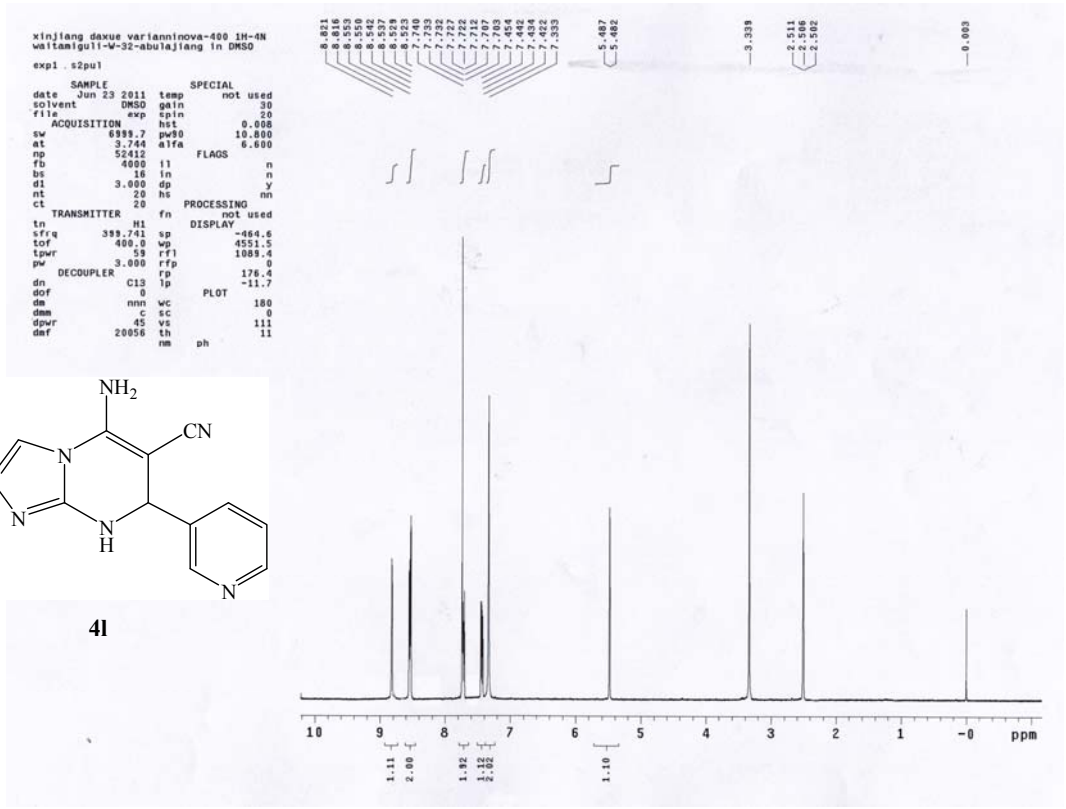
(**L**)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waitamiguli-W-32-abulajiang in DMSO
exp1 . s2pul
SAMPLE
date Jun 23 2011
solvent DMSO
file exp
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np 52412
fb 4000
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ct 20
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sfrq 399.741
tof 400.0
tpwr 59
pw 3.000
DECOUPLER
dn C13
dof 0
dm nnn
dmm c
dpwr 45
dmf 20056
SPECIAL
temp not used
gain 30
spin 20
hst 0.008
pw90 10.800
alfa 6.600
FLAGS
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in n
dp y
hs nn
PROCESSING
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rfp 0
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lp -11.7
PLOT
wc 180
sc 0
vs 111
th 11
nm ph
8.821
8.816
8.553
8.550
8.542
8.537
8.529
8.523
7.740
7.733
7.732
7.727
7.722
7.712
7.707
7.703
7.454
7.442
7.434
7.422
7.353
5.487
5.482
3.339
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2.506
2.502
0.000
NH2
CN
N
N
N
H
N
4l
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9
8
7
6
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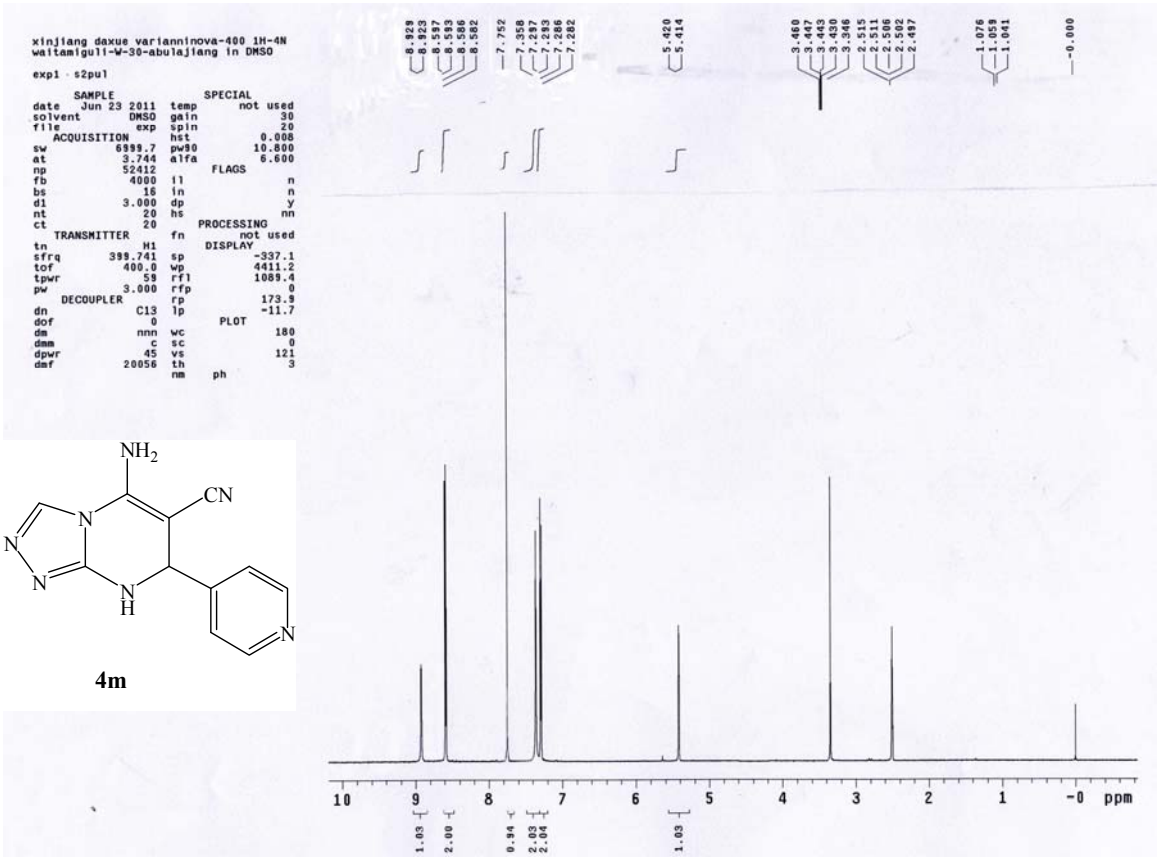
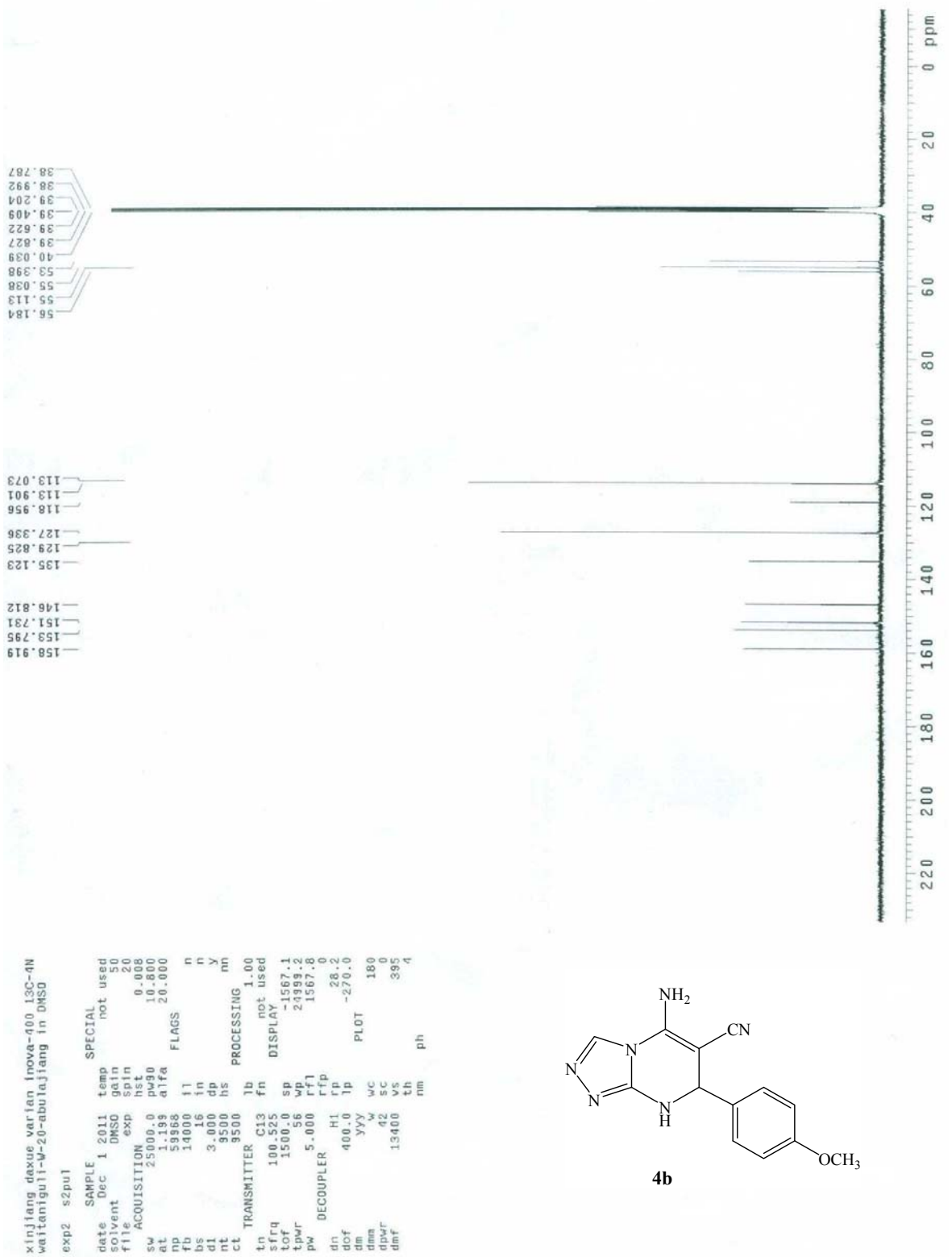
1.11
2.00
1.92
1.12
2.02
1.10

(**M**)

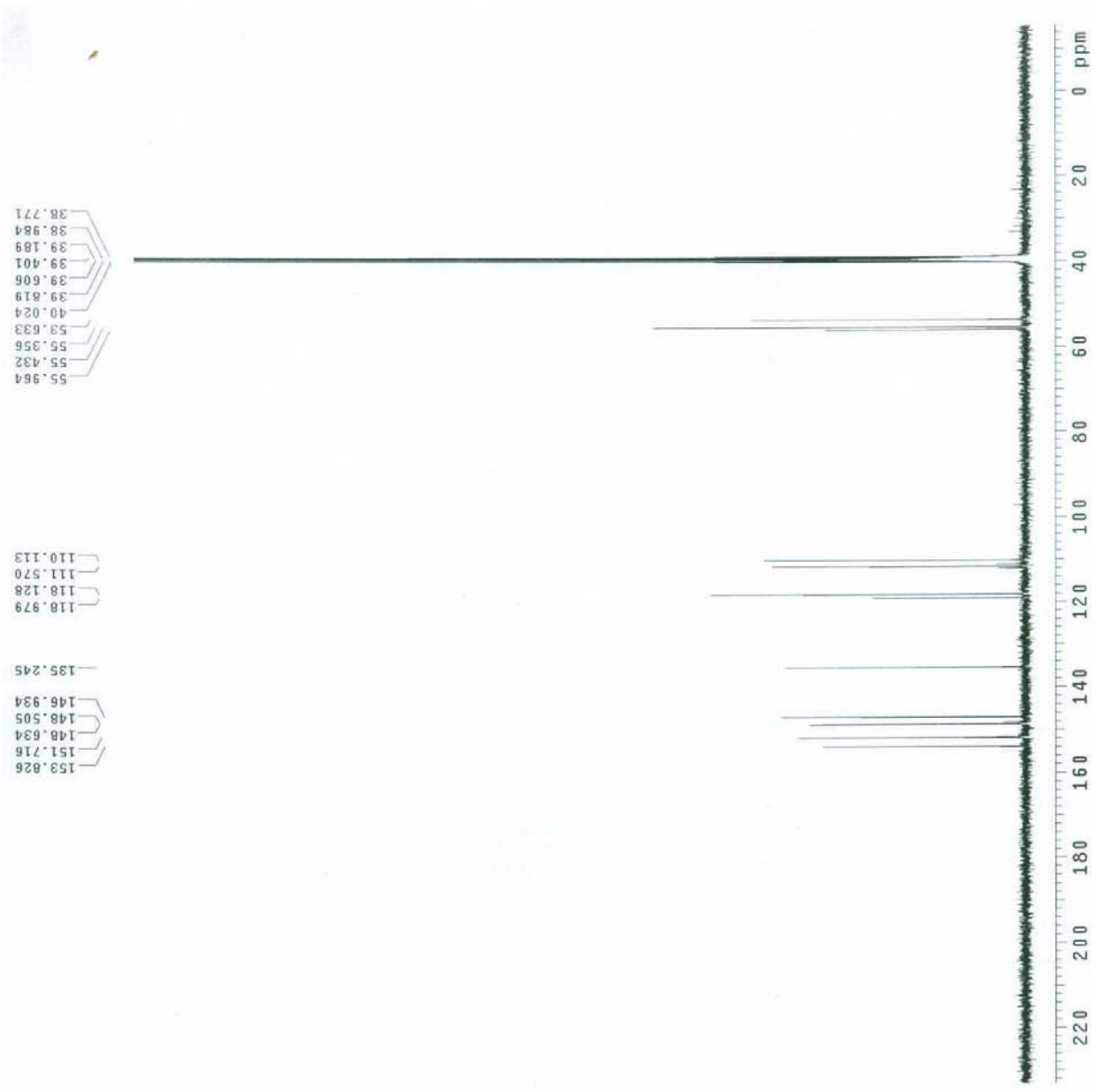

xinjiang daxue varianninova-400 1H-4N
waitamiguli-W-30-abulajiang in DMSO
exp1 . s2pul
SAMPLE
date Jun 23 2011
solvent DMSO
file exp
ACQUISITION
sw 6999.7
at 3.744
np 52412
fb 4000
bs 16
d1 3.000
nt 20
ct 20
TRANSMITTER
tn H1
sfrq 399.741
tof 400.0
tpwr 59
pw 3.000
DECOUPLER
dn C13
dof 0
dm nnn
dmm c
dpwr 45
dmf 20056
SPECIAL
temp not used
gain 30
spin 20
hst 0.008
pw90 10.800
alfa 6.600
FLAGS
il n
in n
dp y
hs nn
PROCESSING
fn not used
DISPLAY
sp -337.1
wp 4411.2
rfl 1089.4
rfp 0
rp 173.9
lp -11.7
PLOT
wc 180
sc 0
vs 121
th 3
nm ph
8.928
8.923
8.597
8.593
8.586
8.582
7.752
7.358
7.297
7.293
7.286
7.282
5.420
5.414
3.460
3.447
3.443
3.430
3.346
2.515
2.511
2.506
2.502
2.497
1.076
1.059
1.041
-0.000
NH2
CN
N
N
N
H
N
4m
10
9
8
7
6
5
4
3
2
1
-0
ppm
1.03
2.00
0.94
2.03
2.04
1.03

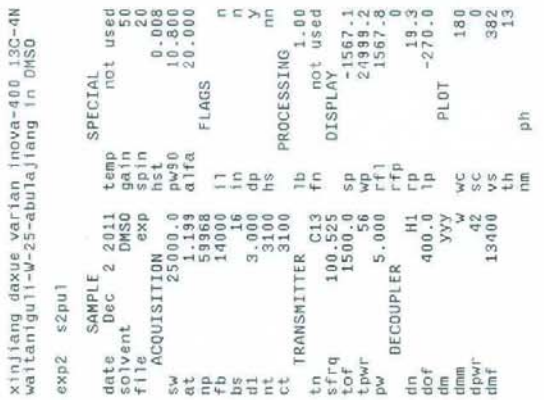
(**N**)

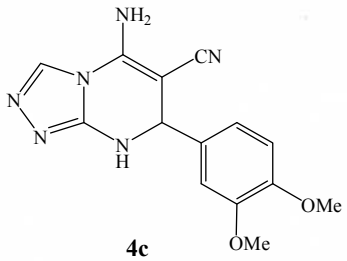
Figure 6. 13C NMR spectra of products.



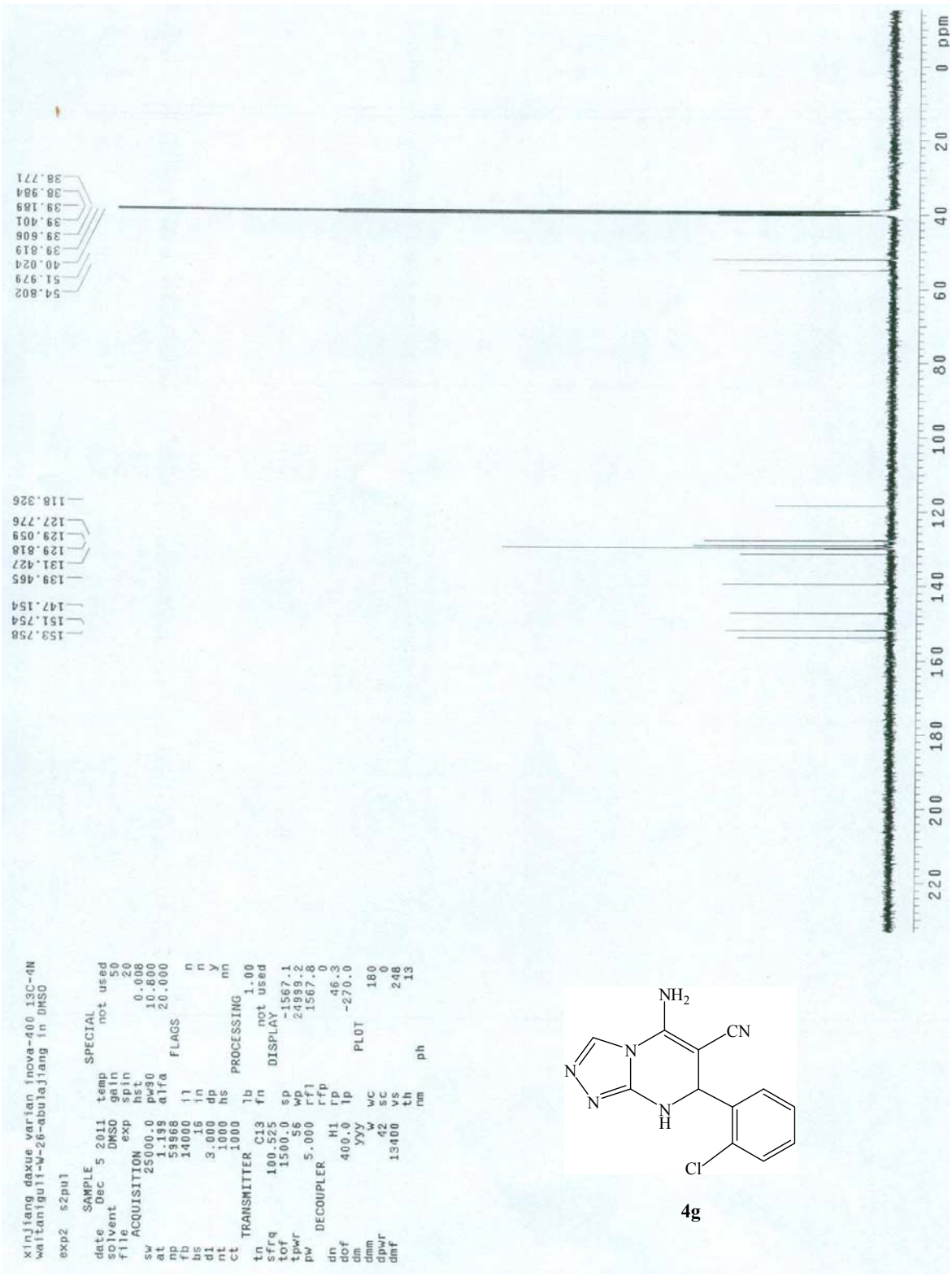
4b


38.771
38.984
39.189
39.401
39.606
39.819
40.024
53.633
55.356
55.432
55.964
110.113
111.570
118.128
118.979
135.245
146.934
148.505
148.634
151.716
153.826
220 200 180 160 140 120 100 80 60 40 20 0 ppm


xinjiang daxue varian inova-400 13C-4N
waitanigui-w-25-abulajiang in DMSO
exp2 s2pul
SAMPLE
date Dec 2 2011
solvent DMSO
file exp
ACQUISITION
sw 25000.0
at 1.199
np 59968
fb 14000
bs 16
d1 3.000
nt 3100
ct 3100
TRANSMITTER
tn C13
sfrq 100.525
tof 1500.0
tpwr 56
pw 5.000
DECOUPLER
dn H1
dof 400.0
dm yyy
dmm w
dpwr 42
dmf 13000
SPECIAL
temp not used
gain
spin 50
hst 20
pw90 0.008
alfa 10.800
FLAGS 20.000
il n
in n
dp y
hs nn
PROCESSING
lb 1.00
fn not used
DISPLAY
sp -1567.1
wp 24999.2
rfl 1567.8
rfp 0
rp 19.3
lp -270.0
PLOT
wc 180
sc 0
vs 382
th 13
ph
nm

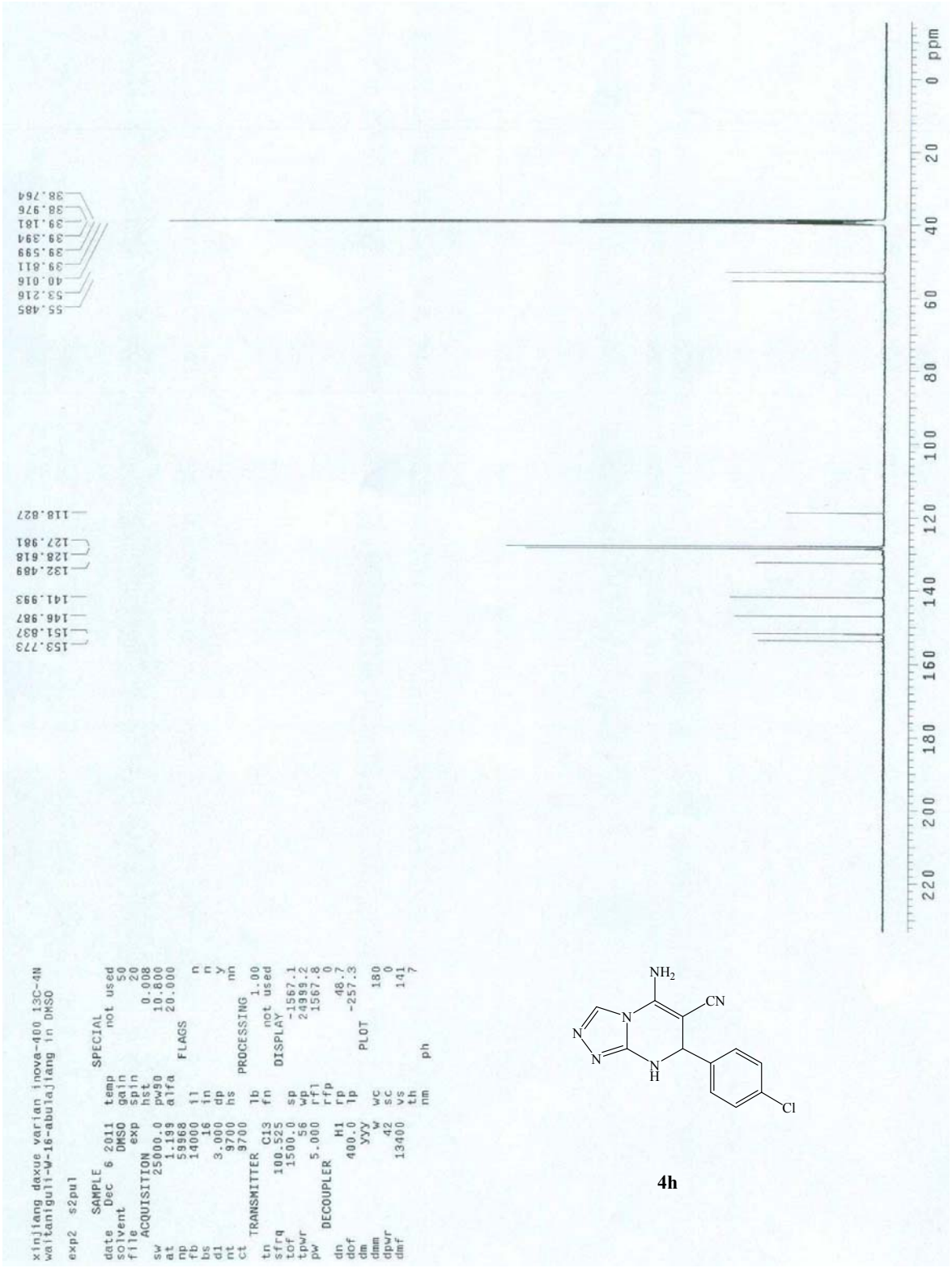

NH2
CN
N
N
N
H
OMe
OMe

4c


xinjiang daxue varian inova-400 13C-4N
waitanigul-W-26-abulajiang in DMSO
exp2 s2pul
SAMPLE
date Dec 5 2011
solvent DMSO
file exp
ACQUISITION
sw 25000.0
at 1.199
np 59968
fb 14000
bs 16
d1 3.000
nt 1000
ct 1000
TRANSMITTER
tn C13
sfrq 100.525
tof 1500.0
tpwr 56
pw 5.000
DECOUPLER
dn H1
dof 400.0
dm yyy
dmm w
dpwr 42
dmf 13400
temp gain spin hst pw90 alfa FLAGS il in dp hs PROCESSING lb fn DISPLAY sp wp rfl rfp rp lp PLOT wc sc vs th
SPECIAL not used 50 20 0.008 10.800 20.000 n n y nn 1.00 not used 1567.1 24999.2 1567.8 0 46.3 -270.0 180 0 248 13 ph
ppm
220 200 180 160 140 120 100 80 60 40 20 0
153.758
151.754
147.154
139.465
131.427
129.818
129.059
127.776
118.326
54.802
51.979
40.024
39.619
39.606
39.401
39.189
38.984
38.771

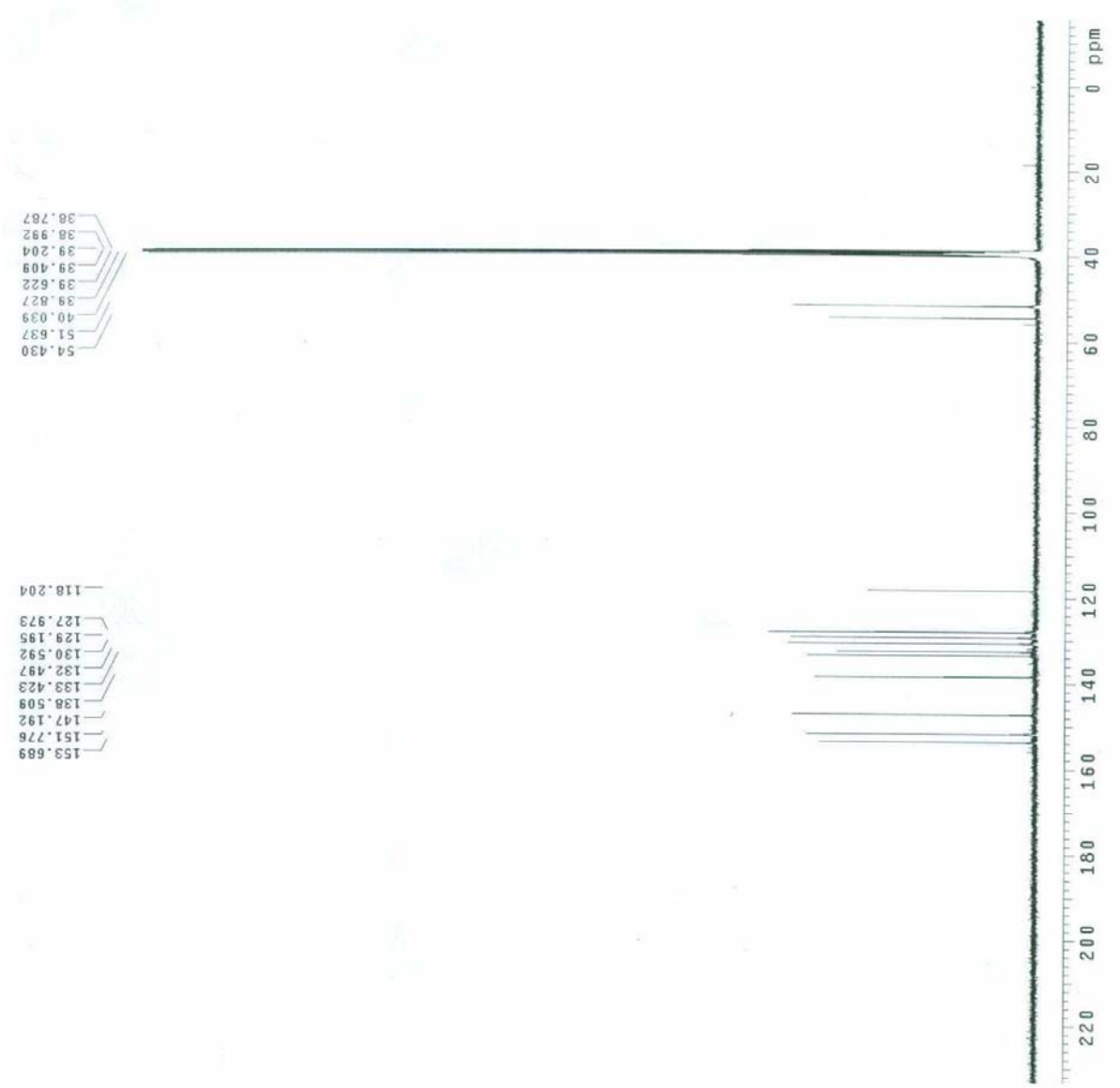
NH2
CN
N
N
N
H
Cl

4g

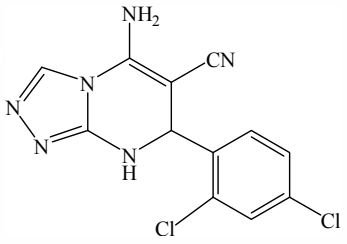

xinjiang daxue varian inova-400 13C-4N
waitanigui-W-16-abulajiang in DMSO
exp2 s2pul
SAMPLE
date Dec 6 2011
solvent DMSO
file exp
ACQUISITION
sw 25000.0
at 1.199
np 59968
fb 14000
bs 16
d1 3.000
nt 3700
ct 3700
TRANSMITTER C13
tn
sfrq 100.525
tof 1500.0
tpwr 56
pw 5.000
DECOUPLER H1
dn
dof 400.0
dm yyy
dmm y
dpwr 42
dmf 13400
SPECIAL
temp not used
gain 50
spin 20
hst 0.008
pw90 10.800
alfa 20.000
FLAGS
il n
in n
dp y
hs nn
PROCESSING
lb 1.00
fn not used
DISPLAY
sp -1567.1
wp 24999.2
rfl 1567.8
rfp 0
rp 48.7
lp -257.3
PLOT
wc 180
sc 0
vs 141
th 7
ph
nm
153.773
151.837
146.987
141.993
132.489
128.618
127.981
118.827
55.485
53.216
40.016
39.811
39.599
39.394
39.181
38.976
38.764
220 200 180 160 140 120 100 80 60 40 20 0 ppm

NH2
CN
N
N
N
H
Cl

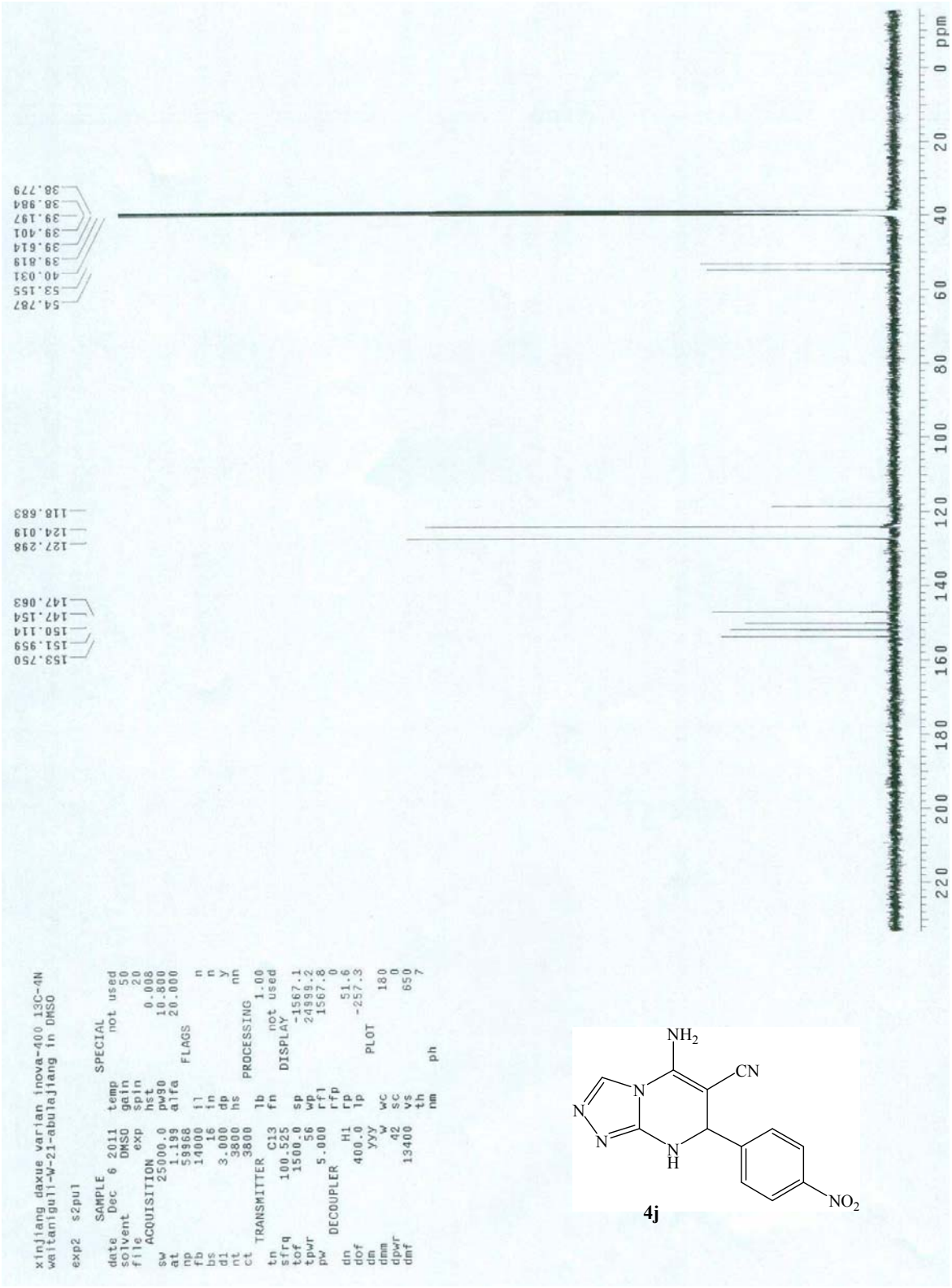
4h



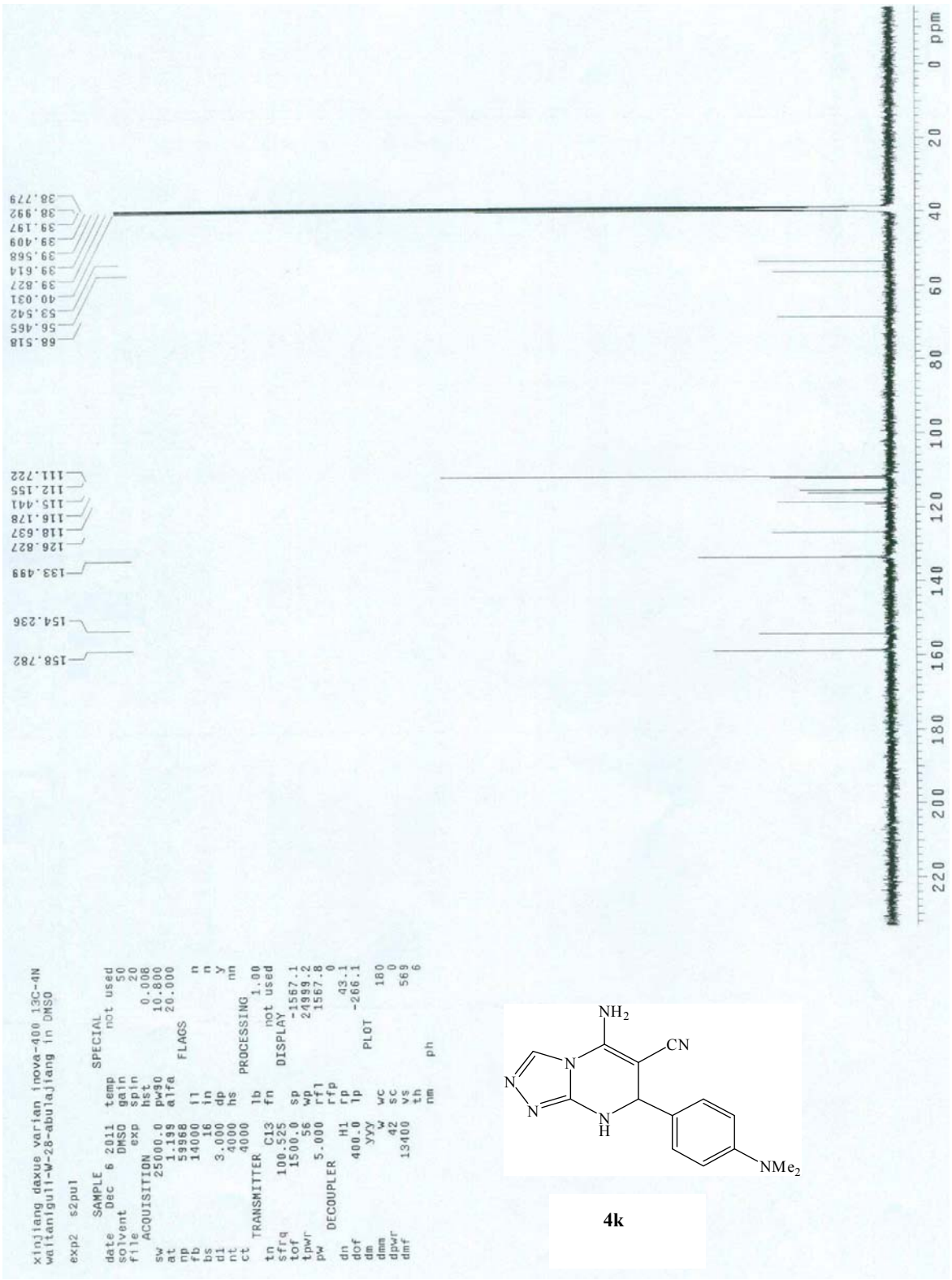

```
xinjiang daxue varian inova-400 13C-4N
waitanigul-W-22-abulajiang in DMSO

exp2  s2pul

                SAMPLE          SPECIAL
      date   Dec  1 2011  temp      not used
      solvent        DMSO  gain            50
      file            exp  spin            20
   ACQUISITION             hst          0.008
      sw        25000.0    pw90        10.800
      at          1.199    alfa        20.000
      np          59968           FLAGS
      fb          14000    il              n
      bs             16    in              n
      d1          3.000    dp              y
      nt          10000    hs             nn
      ct          10000           PROCESSING
   TRANSMITTER  C13    lb              1.00
      tn                   fn      not used
      sfrq      100.525           DISPLAY
      tof        1500.0    sp       -1567.1
      tpwr           56    wp       21999.2
      pw          5.000    rfl       1567.8
   DECOUPLER               rfp            0
      dn               H1  rp           15.8
      dof           400.0  lp        -266.3
      dm              yyy           PLOT
      dmm               w   wc           180
      dpwr             42   sc             0
      dmf           13400   vs           347
                            th            10
                            nm            ph
```



4i

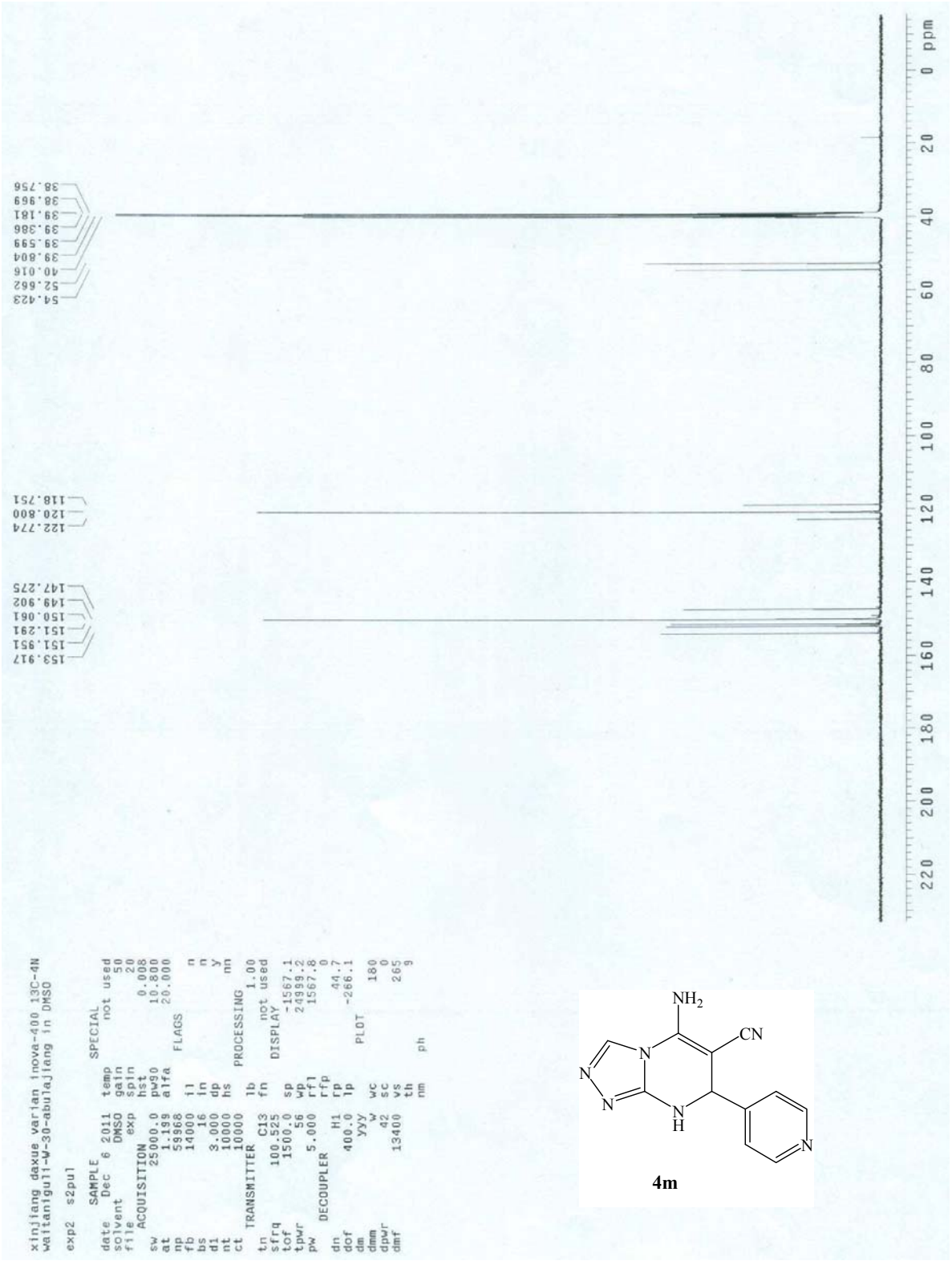

xinjiang daxue varian inova-400 13C-4N
waitanigul-W-21-abulajiang in DMSO
exp2 s2pul
SAMPLE
date Dec 6 2011
solvent DMSO
file exp
ACQUISITION
sw 25000.0
at 1.199
np 59968
fb 14000
bs 16
d1 3.000
nt 3800
ct 3800
TRANSMITTER
tn C13
sfrq 100.525
tof 1500.0
tpwr 56
pw 5.000
DECOUPLER
dn H1
dof 400.0
dm yyy
dmm w
dpwr 42
dnf 13400
SPECIAL
temp not used
gain
spin
hst 0.008
pw90 10.800
alfa 20.000
FLAGS
il n
in n
dp y
hs nn
PROCESSING
lb 1.00
fn not used
DISPLAY
sp -1567.1
wp 24999.2
rfl 1567.8
rfp 0
rp 51.6
lp -257.3
PLOT
wc 180
sc 0
vs 650
th 7
nm
ph
38.779
38.984
39.197
39.401
39.614
39.819
40.031
53.155
54.787
118.683
124.019
127.298
147.063
147.154
150.114
151.959
153.750
220 200 180 160 140 120 100 80 60 40 20 0 ppm
NH2
CN
N
N
N
H
NO2

4j


xinjiang daxue varian inova-400 13C-4N
waitainigu11-W-28-abulajiang in DMSO
exp2 s2pul
SAMPLE
date Dec 6 2011
solvent DMSO
file exp
ACQUISITION
sw 25000.0
at 1.199
np 59968
fb 14000
bs 16
d1 3.000
nt 4000
ct 4000
TRANSMITTER
tn C13
sfrq 100.525
tof 1500.0
tpwr 56
pw 5.000
DECOUPLER
dn H1
dof 400.0
dm yyy
dmm w
dpwr 42
dmf 13400
SPECIAL
temp not used
gain 50
spin 20
hst 0.008
pw90 10.800
alfa 20.000
FLAGS
il n
in n
dp y
hs nn
PROCESSING
lb 1.00
fn not used
DISPLAY
sp -1567.1
wp 24999.2
rfl 1567.8
rfp 0
rp 43.1
lp -266.1
PLOT
wc 180
sc 0
vs 569
th 6
nm
ph
158.782
154.236
133.499
126.827
118.637
116.178
115.441
112.155
111.722
68.518
56.465
53.542
40.031
39.827
39.614
39.568
39.409
39.197
38.992
38.779
220 200 180 160 140 120 100 80 60 40 20 0 ppm

NH2
CN
N
N
N
H
NMe2

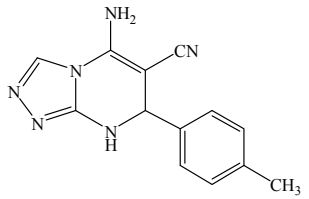
4k


xinjiang daxue varian inova-400 13C-4N
waitanigu11-W-30-abulajiang in DMSO
exp2 s2pul
SAMPLE
date Dec 6 2011
solvent DMSO
file exp
ACQUISITION
sw 25000.0
at 1.199
np 59968
fb 14000
bs 16
d1 3.000
nt 10000
ct 10000
TRANSMITTER
tn C13
sfrq 100.525
tof 1500.0
tpwr 56
pw 5.000
DECOUPLER
dn H1
dof 400.0
dm yyy
dmm w
dpwr 42
dmf 13400
SPECIAL
temp not used
gain
spin
hst 0.008
pw90 10.800
alfa 20.000
FLAGS
PROCESSING 1.00
lb not used
fn
DISPLAY
sp -1567.1
wp 24999.2
rfl 1567.8
rfp 0
rp 44.7
lp -266.1
PLOT
wc 180
sc 0
vs 265
th 9
nm
ph
153.917
151.951
151.291
150.061
149.902
147.275
122.774
120.800
118.751
54.423
52.662
40.016
39.804
39.599
39.386
39.181
38.969
38.756
220 200 180 160 140 120 100 80 60 40 20 0 ppm

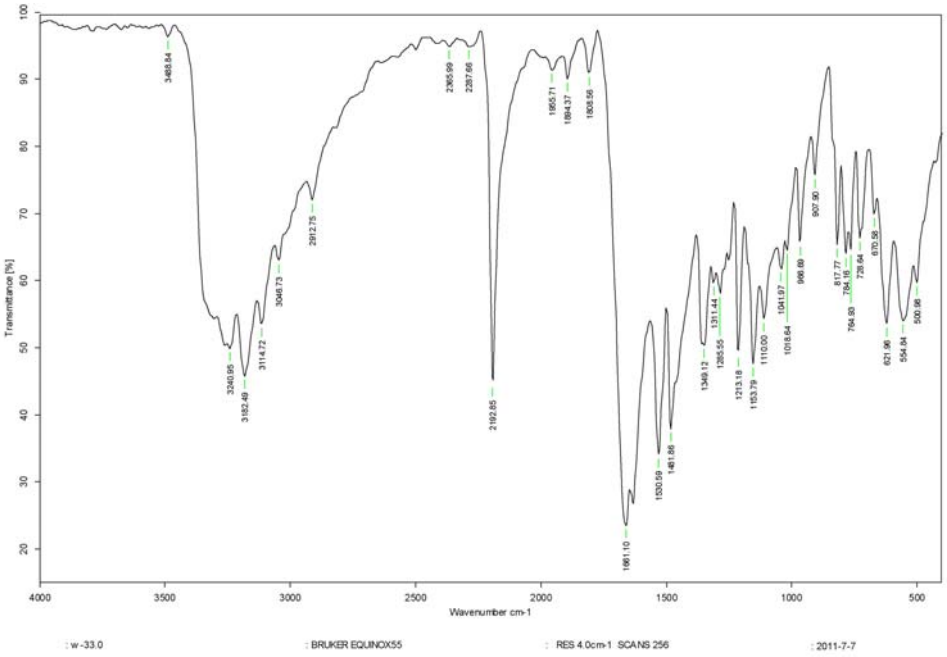
NH2
CN
N
N
N
H
N

4m

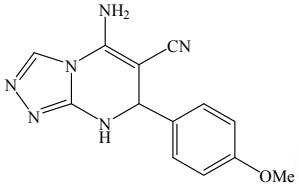
Figure S7. IR spectra of products. (**A**) IR spectrum of **4a**; (**B**) IR spectrum of **4b**; (**C**) IR spectrum of **4c**; (**D**) IR spectrum of **4e**; (**E**) IR spectrum of **4f**; (**F**) IR spectrum of **4g**; (**G**) IR spectrum of **4h**; (**H**) IR spectrum of **4i**; (**I**) IR spectrum of **4j**; (**J**) IR spectrum of **4l**.



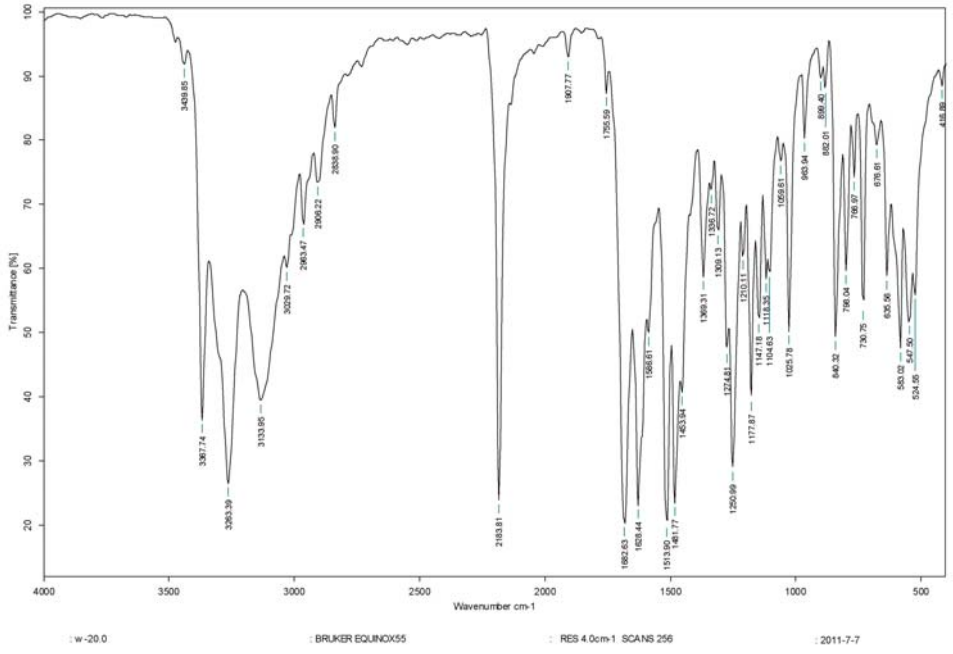
4a



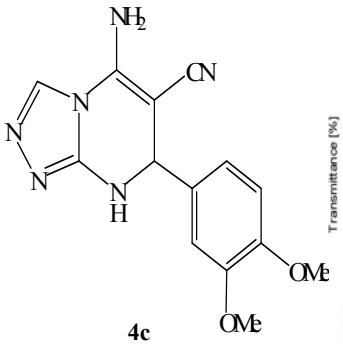
(**A**)



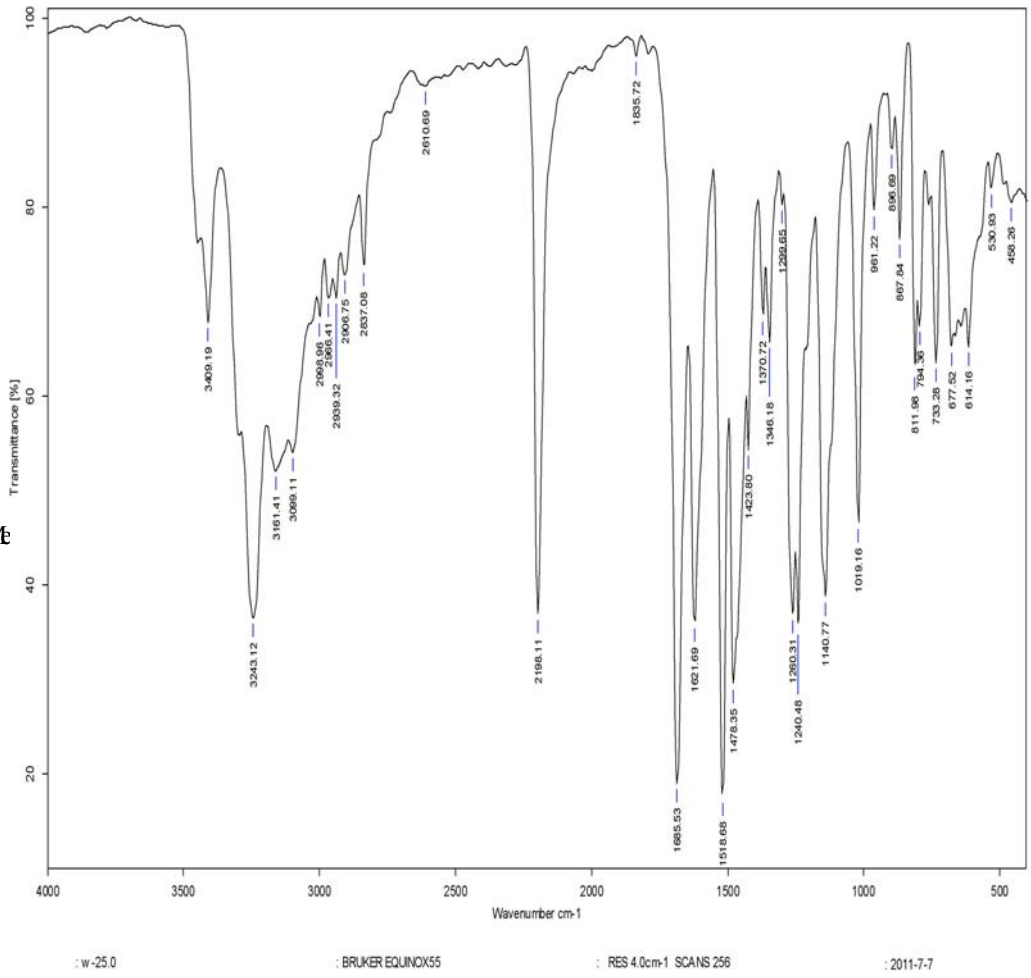
4b



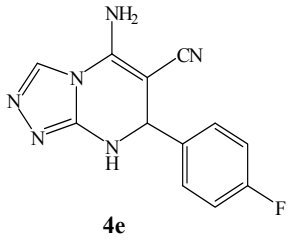
(**B**)


NH2
CN
N
N
N
H
OMe
OMe

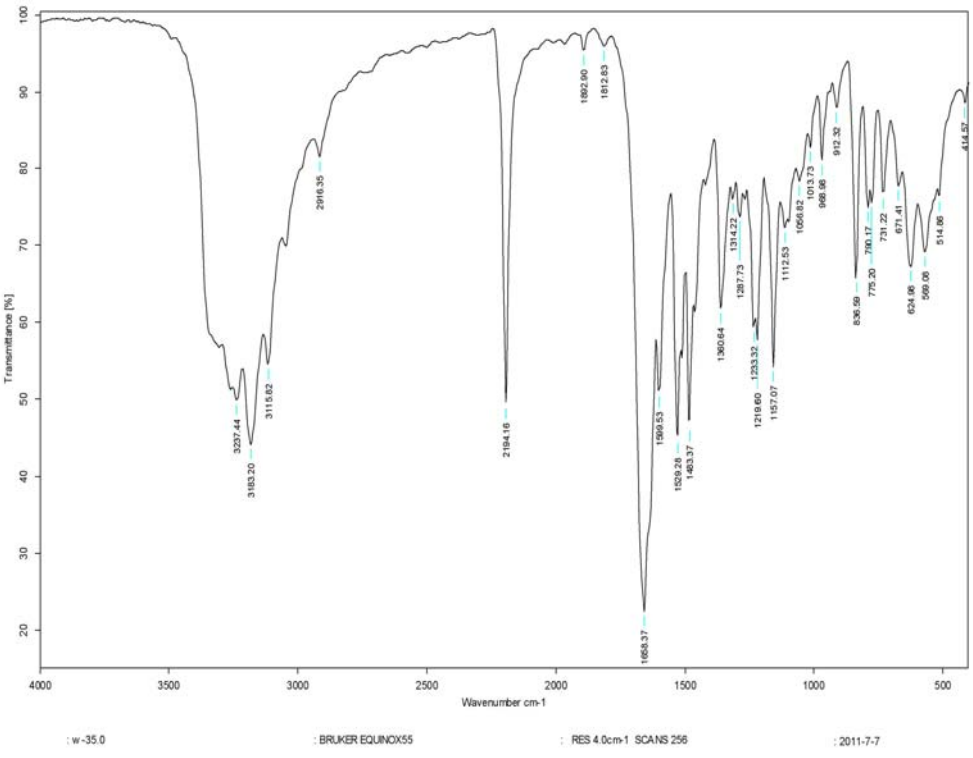
4c


Transmittance [%]
Wavenumber cm-1
3409.19
3243.12
3161.41
3099.11
2998.96
2966.41
2939.32
2906.75
2837.06
2610.69
2196.11
1835.72
1685.53
1621.69
1518.68
1478.35
1423.80
1370.72
1346.18
1299.65
1260.31
1240.48
1140.77
1019.16
961.22
896.69
867.84
794.30
733.28
677.52
614.16
530.93
458.26
: w-25.0
: BRUKER EQUINOX55
: RES 4.0cm-1 SCANS 256
: 2011-7-7

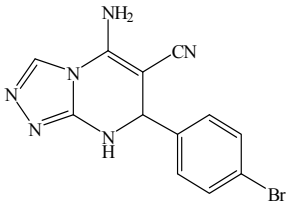
(**C**)


NH2
CN
N
N
N
H
F

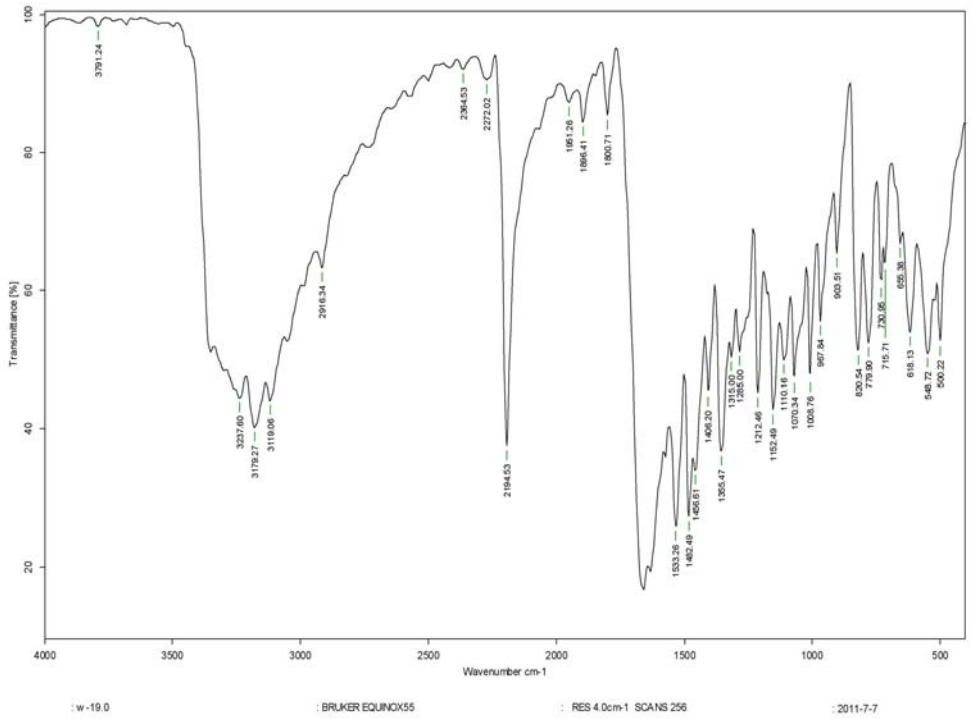
4e


Transmittance [%]
Wavenumber cm-1
3237.44
3183.20
3115.62
2916.35
2194.16
1892.90
1812.83
1654.37
1599.53
1539.26
1483.37
1360.64
1314.22
1287.73
1233.32
1216.60
1157.07
1112.53
1056.82
1013.73
968.86
912.32
836.59
775.20
730.17
731.22
671.41
624.96
569.06
514.86
414.57
: w-35.0
: BRUKER EQUINOX55
: RES 4.0cm-1 SCANS 256
: 2011-7-7

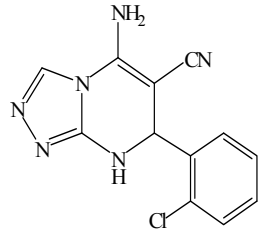
(**D**)


NH2
CN
N
N
N
H
Br

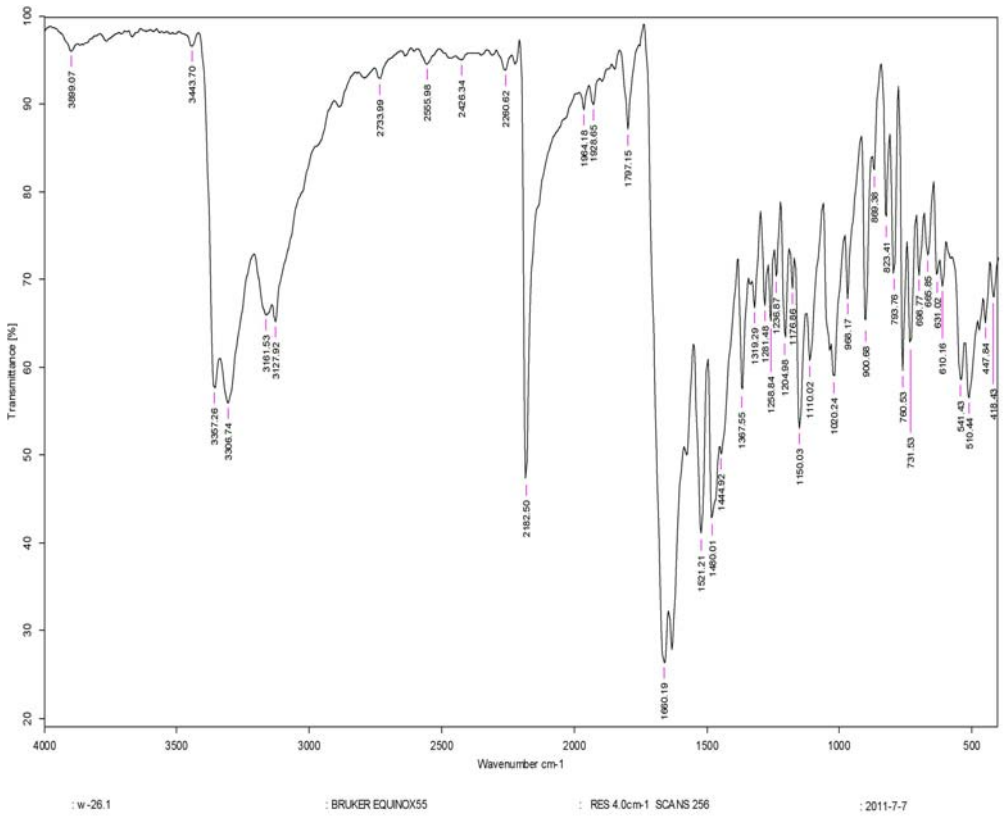
4f


Transmittance [%]
Wavenumber cm-1
3791.24
3237.60
3179.27
3119.06
2916.34
2364.53
2272.02
2194.53
1651.26
1606.41
1560.71
1533.26
1482.49
1456.61
1426.20
1355.47
1315.00
1265.00
1212.46
1152.49
1110.16
1070.34
1008.76
967.84
903.51
820.54
779.80
720.95
715.71
655.36
618.13
548.72
500.22
: w-19.0
: BRUKER EQUINOX55
: RES 4.0cm-1 SCANS 256
: 2011-7-7

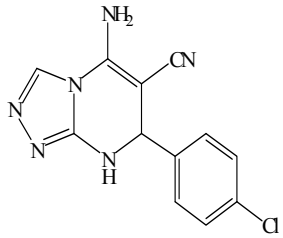
(E)


NH2
CN
N
N
N
H
Cl

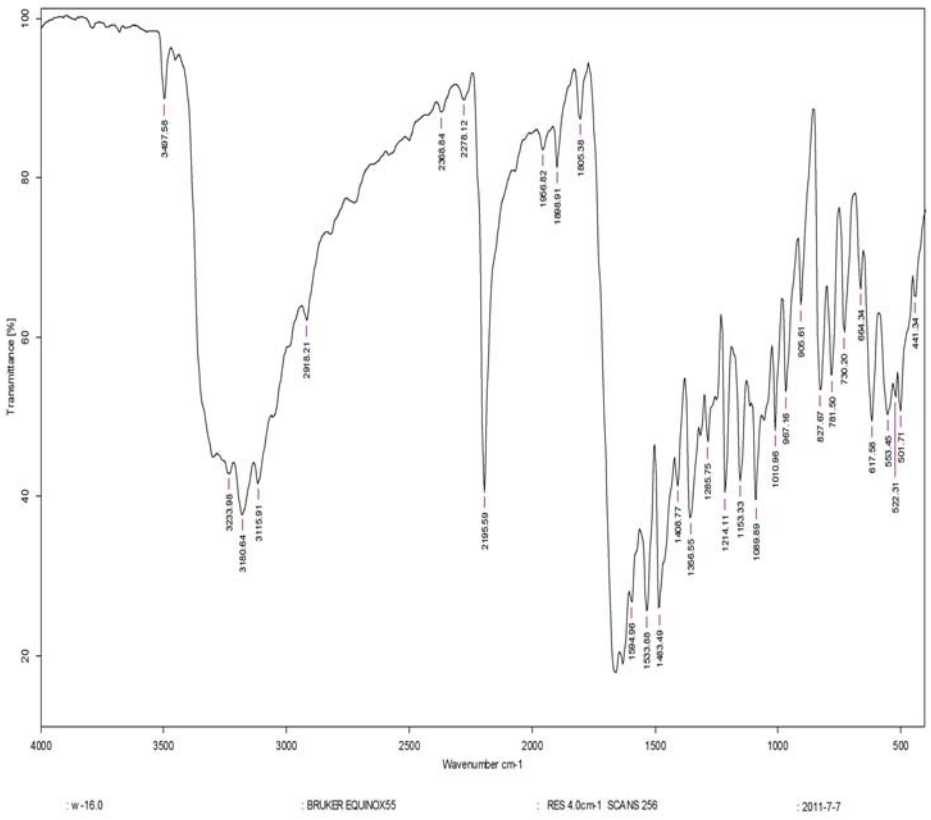
4g


Transmittance [%]
Wavenumber cm-1
3899.07
3443.70
3357.26
3306.74
3161.53
3127.92
2733.99
2955.98
2426.34
2260.62
2182.50
1994.18
1928.65
1797.15
1660.19
1521.21
1480.01
1444.92
1367.55
1319.29
1281.48
1258.84
1236.67
1204.98
1176.86
1150.03
1110.02
1050.24
968.17
900.68
869.38
823.41
793.76
760.53
731.53
696.77
666.85
631.02
610.16
541.43
510.44
447.84
418.43
: w-26.1
: BRUKER EQUINOX55
: RES 4.0cm-1 SCANS 256
: 2011-7-7

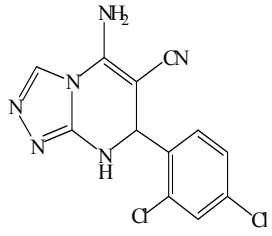
(F)



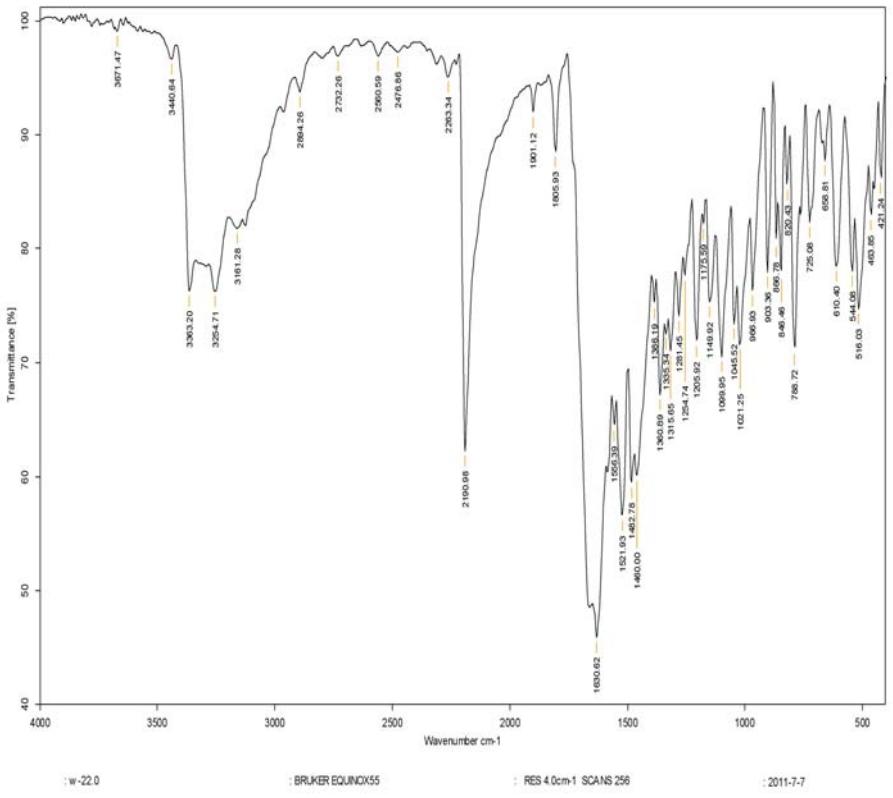
4h


Transmittance [%]
Wavenumber cm-1
3497.58
3233.98
3180.64
3115.91
2918.21
2368.84
2276.12
2195.59
1956.82
1898.91
1805.38
1594.96
1533.68
1493.49
1408.77
1356.55
1285.75
1214.11
1153.33
1089.89
1010.96
967.16
905.61
827.67
781.50
730.20
664.34
617.58
553.45
522.31
501.71
441.34
: w-16.0
: BRUKER EQUINOX55
: RES 4.0cm-1 SCANS 256
: 2011-7-7

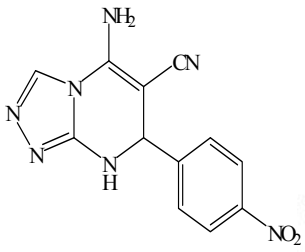
(**G**)



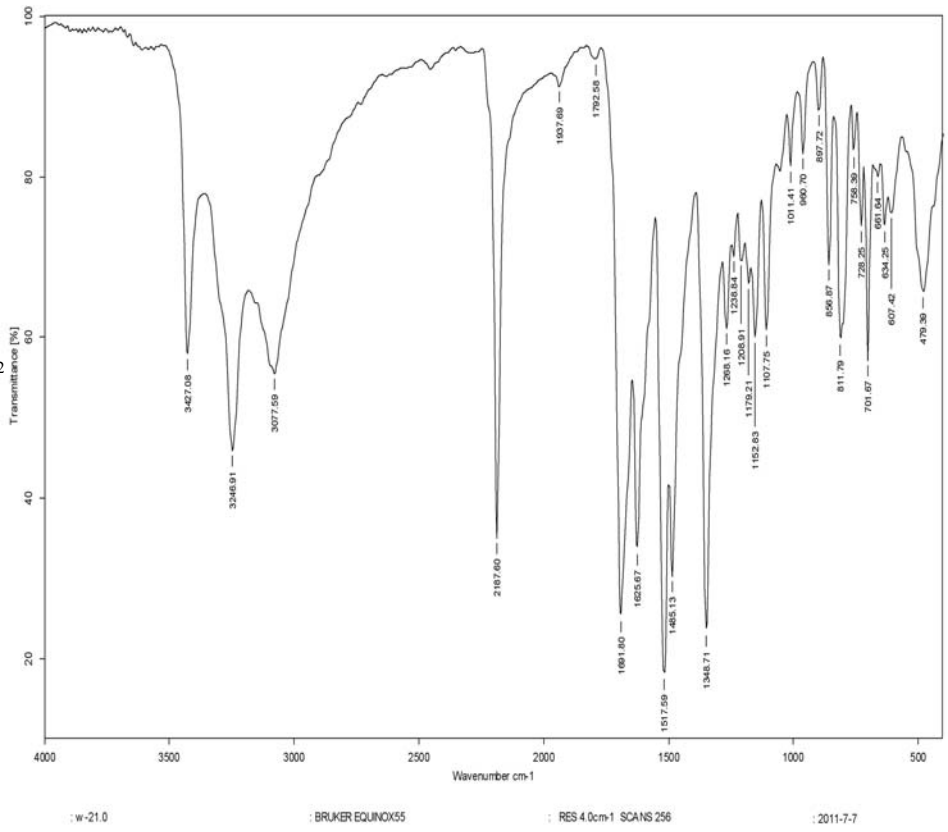
4i


Transmittance [%]
Wavenumber cm-1
3471.47
3440.84
3363.20
3254.71
3161.28
2884.26
2732.28
2960.59
2476.86
2363.34
2190.98
1901.12
1805.93
1680.62
1521.93
1496.39
1462.78
1460.00
1368.19
1335.37
1315.65
1281.45
1254.74
1205.92
1175.59
1144.92
1099.95
1045.52
1021.25
966.83
903.36
866.78
849.49
820.43
788.72
725.08
658.81
610.40
544.06
516.03
483.85
421.24
: w-22.0
: BRUKER EQUINOX55
: RES 4.0cm-1 SCANS 256
: 2011-7-7

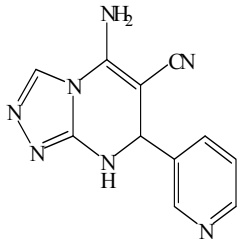
(**H**)



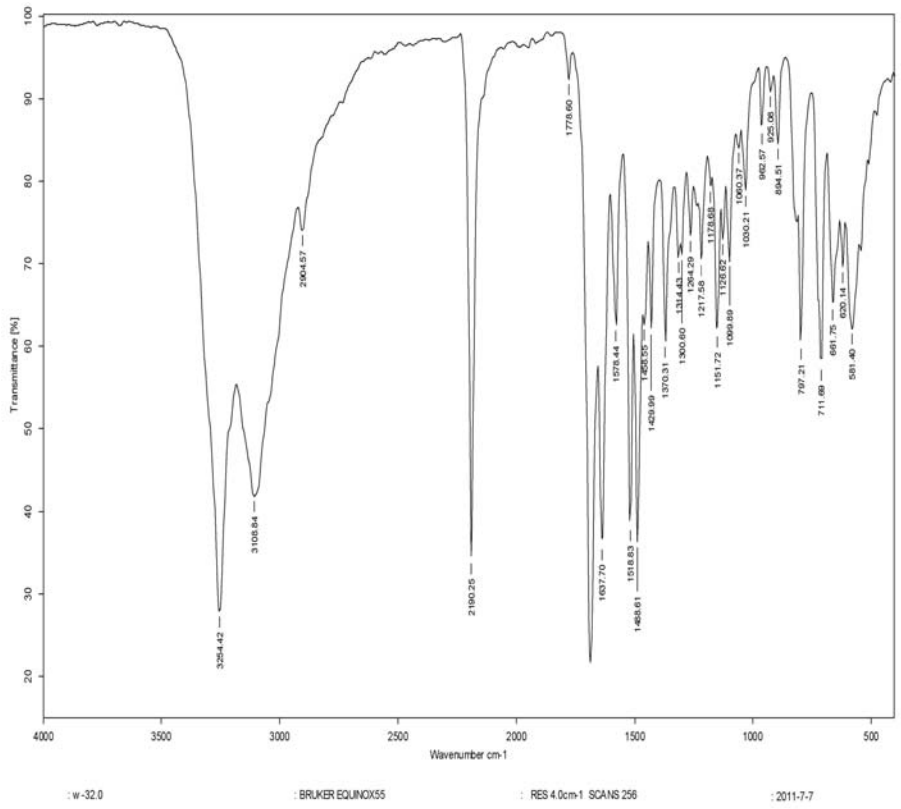
4j


Transmittance [%]
Wavenumber cm-1
3427.08
3246.91
3077.59
2187.60
1937.69
1792.58
1691.80
1625.67
1517.59
1485.13
1348.71
1268.16
1236.84
1208.91
1179.21
1152.83
1107.75
1011.41
960.70
897.72
856.87
811.79
758.39
728.25
701.67
661.64
634.25
607.42
479.39
: w-21.0
: BRUKER EQUINOX55
: RES 4.0cm-1 SCANS 256
: 2011-7-7

(I)



4l


Transmittance [%]
Wavenumber cm-1
3254.42
3108.84
2904.57
2190.25
1776.60
1637.70
1578.44
1518.83
1485.61
1458.55
1429.99
1370.31
1314.43
1300.60
1264.29
1217.58
1178.68
1151.72
1126.82
1099.69
1090.37
1030.21
982.57
925.08
894.51
797.21
711.68
661.75
630.14
581.40
: w-32.0
: BRUKER EQUINOX55
: RES 4.0cm-1 SCANS 256
: 2011-7-7

(J)