Supporting Information for
***N*-Substituted Imines by the Copper-Catalyzed *N*-Imination of Boronic Acids and
Organostannanes with *O*-Acyl Ketoximes**

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1v491 cdc13 1h 9-6-06

Pulse Sequence: s2pu1

Un-numbered spectrum provided for
reference

6-172, ying

expl std1h

SAMPLE DEC. & VT
date Aug 21 2003 dfrq 399.941
solvent cdc13 dn H1
file exp dpwr 30
ACQUISITION dof 0
sfrq 399.941 dm nnn
tn H1 dmm c
at 2.202 dmf 200
np 22912 dseq
sw 5203.3 dres 1.0
fb 3000 homo n
bs 16
tpwr 58 PROCESSING
pw 10.0 lb 0.20
d1 1.000 wfile
tof 207.0 proc ft
nt 8 fn not used
ct 8 math f
alock n werr react
gain not used wexp procplot
FLAGS
il n
in n
dp y
hs nn
DISPLAY
sp -390.3
wp 5203.3
vs 116
sc 0
wc 250
hzmm 20.81
is 500.00
rfl 3293.8
rfp 2903.6
th 6
ins 100.000
nm cdc ph

Un-numbered spectrum provided for reference. See Table 1, entry 1; Table 2, entries 1-3, 9-12.

6-239, ying

exp1 std1h

SAMPLE DEC. & VT
date Oct 2 2003 dfrq 399.941
solvent cdc13 dn H1
file exp dpwr 30
ACQUISITION dof 0
sfrq 399.941 dm nnn
tn H1 dmm c
at 2.202 dmf 200
np 22912 dseq
sw 5203.3 dres 1.0
fb 3000 homo n
bs 16
tpwr 58 lb PROCESSING 0.20
pw 10.0 wtfile
dl 1.000 proc ft
tof 207.0 fn not used
nt 8 math f
ct 8
alock n werr react
gain not used wexp procplot
wbs
wnt
FLAGS
il n
in n
dp y
hs nn
DISPLAY
sp -394.4
wp 5203.3
vs 123
sc 0
wc 250
hzmm 20.81
is 151.04
rfl 3298.0
rfp 2903.6
th 5
ins 100.000
nm cdc ph

Un-numbered spectrum provided for reference. Generated in optimization studies.

v193 cdcl3 1h 8-30-06

File : xp

Sample id : tmpstudy

Pulse Sequence: s2pul

Un-numbered spectrum provided for reference. See Table 1, entry 2.

vi50 cdc13 1h 8-29-06

File : xp

Sample id : tmpstudy

Pulse Sequence: s2pul

Un-numbered spectrum provided for reference. See Table 1, entries 3-6; Table 2, entries 4-8, 13-16.

vi50 cdc13 bb
File : xp
Sample id : Impstudy
Pulse Sequence: s2pul

Un-numbered spectrum provided for reference. See Table 1, entries 3-6; Table 2, entries 4-8, 13-16.

19F
v150 cdc13 8-30-06
Pulse Sequence: s2pu1

Un-numbered spectrum provided for reference. See Table 1, entries 3-6; Table 2, entries 4-8, 13-16.

6-230, ying

exp1 std1h

```

SAMPLE
date Sep 30 2003 dfrq 399.941
solvent cdcl3 dn H1
file exp dpwr 30
ACQUISITION dof 0
sfrq 399.941 dm nnn
tn H1 dmm c
at 2.202 dmf 200
np 22912 dseq
sw 5203.3 dres 1.0
fb 3000 homo n
bs 16
tpwr 58 lb 0.20
pw 10.0 wtfile
d1 1.000 proc ft
tof 207.0 fn not used
nt 8 math f
ct 8
alock n werr react
gain not used wexp procplot
FLAGS n wbs
il n wnt
in n
dp y
hs nn

DISPLAY
sp -390.6
wp 5203.3
vs 58
sc 0
wc 250
hzmm 20.81
is 124.95
rfl 3294.2
rfp 2903.6
th 3
ins 100.000
nm cdc ph
```

PROCESSING

werr react
wexp procplot

Un-numbered spectrum provided for reference. See Table 2, entry 1.

6-237, ying

expt std1h

```
SAMPLE          DEC. & VT
date Sep 30 2003 dfrq      399.941
solvent cdc13  dn         H1
file exp      dpwr       30
ACQUISITION     dof       0
sfrq 399.941  dm         nnn
tn H1        dmm         c
at 2.202     dmf        200
np 22912     dseq
sw 5203.3    dres       1.0
fb 3000      homo      n
bs 16
tpwr 58      PROCESSING
pw 10.0      lb        0.20
d1 1.000     wtfile
tof 207.0    proc      ft
nt 8        fn        not used
ct 8        math      f
alock n      werr     react
gain not used wexp    procplot
FLAGS      wbs
il n        wnt
in n
dp y
hs nn
DISPLAY
sp -390.3
wp 5203.3
vs 58
sc 0
wc 250
hzmm 20.81
is 124.95
rfl 3293.8
rfp 2903.6
th 6
ins 100.000
nm cdc ph
```

Un-numbered spectrum provided for reference. See Table 2, entry 2.

7-57, ying

exp1 stdih

SAMPLE		DEC. & VT	
date	Jul 12 2004	dfrq	399.941
solvent	cdcl3	dn	H1
file	exp	dpwr	30
ACQUISITION		dof	0
sfrq	399.941	dm	nnn
tn	H1	dmm	c
at	2.202	dmf	200
np	22912	dseq	
sw	5203.3	dres	1.0
fb	3000	homo	n
bs	16	PROCESSING	
tpwr	58	lb	0.20
pw	10.0	wtfile	
d1	1.000	proc	ft
tof	207.0	fn	not used
nt	8	math	f
ct	8		
alock	n	werr	react
gain	not used	wexp	procplot
FLAGS		wbs	
il	n	wnt	
in	n		
dp	y		
hs	nn		
DISPLAY			
sp	-390.6		
wp	5203.3		
vs	105		
sc	0		
wc	250		
hzmm	20.81		
is	73.21		
rfl	3294.2		
rfp	2903.6		
th	5		
ins	100.000		
nm	cdc ph		

Un-numbered spectrum provided for reference. See Table 2, entry 3.

v158 acetone-d6 1h 7-3-06

Pulse Sequence: s2pu1

Un-numbered spectrum provided for reference. See Table 2, entry 4.

Un-numbered spectrum provided for
reference. See Table 2, entry 5.

vi57 acetoned-6 1h 7-8-06

Pulse Sequence: s2pu1

Un-numbered spectrum provided for reference. See Table 2, entry 6.

vi52 acetone-d6 1h 7-1-06

File : xp

Sample id : tmpstudy

Pulse Sequence: s2pul

Un-numbered spectrum provided for reference. See Table 2, entry 7.

vi52 acetone-d6 bb 7-1-06

File : xp

Sample id : tmpstudy

Pulse Sequence: s2pul

Un-numbered spectrum provided for
reference. See Table 2, entry 7.

vi245 acetone-d6 1h 11-16-06

File : xp

Sample id : tmpstudy

Pulse Sequence: s2pul

Un-numbered spectrum provided for reference. See Table 2, entry 8.

vi245 acetone-d6 1h 11-16-06

File : xp

Sample id : tmpstudy

Pulse Sequence: s2pul

Un-numbered spectrum provided for reference. See Table 2, entry 8.

7-14, ying
expl std1h

```
SAMPLE      DEC. & VT
date May 18 2004 dfrq 399.941
solvent cdc13 dn H1
file exp dpwr 30
ACQUISITION dof 0
sfrq 399.941 dm nnn
tn H1 dmm c
at 2.202 dmf 200
np 22912 dseq
sw 5203.3 dres 1.0
fb 3000 homo n
bs 16
tpwr 58 lb 0.20
pw 10.0 wtfile
d1 1.000 proc ft
tof 207.0 fn not used
nt 16 math f
ct 16
alock n werr react
gain not used wexp procplot
FLAGS      n wbs
il n wnt
in n
dp y
hs nn
DISPLAY
sp -390.9
wp 5203.3
vs 38
sc 0
wc 250
hzmm 20.81
is 136.12
rfl 390.9
rfp 0
th 3
ins 100.000
nm cdc ph
```

Un-numbered spectrum provided for reference. See Table 2, entry 9.

vi156 acetone-d6 1h 8-31-06

File : xp

Sample id : tmpstudy

Pulse Sequence: s2pul

Un-numbered spectrum provided for reference. See Table 2, entry 10.

vi156 acetone-d6 bb 8-31-06

File : xp06

Sample id#: tmpstudy

Pulse Sequence: s2pul

162.396
151.857
139.948
136.808
130.889
130.097
130.052
129.103
128.932
128.735
127.202
125.543
125.327

30.077
29.887
29.693
29.596
29.307
29.113
28.923

Un-numbered spectrum provided for
reference. See Table 2, entry 10.

220 200 180 160 140 120 100 80 60 40 20 0 ppm

S41100

Un-numbered spectrum provided for
reference. See Table 2, entry 11.

Un-numbered spectrum provided for reference. See Table 2, entry 12 and 13.

v180 acetone-d6 1h 3-19-06

Pulse Sequence: s2pu1

Un-numbered spectrum provided for
reference. See Table 2, entry 14.

Un-numbered spectrum provided for
reference. See Table 2, entry 14.

205.824

164.309

140.168

138.446

137.065

134.334

130.472

129.160

129.122

128.924

128.864

128.560

32.064

30.433

30.077

29.687

29.697

29.500

29.310

29.113

28.923

22.505

13.765

Un-numbered spectrum provided for reference. See Table 2, entry 15.

Un-numbered spectrum provided for reference. See Table 2, entry 15.

vi21 acetone-d6 1h 6-15-06

File : xp

Sample id : tmpstudy

Pulse Sequence: s2pul

Un-numbered spectrum provided for reference. See Table 2, entry 16.

vi21 acetone d6 6-15-06

File: 05.81
Sample Id: 05.80
Study: 05.79

Pulse Sequence: s2pul

167.553

139.911

138.207

136.674

136.083

133.162

131.045

130.502

129.583

129.267

129.260

129.252

129.219

128.709

128.597

Un-numbered spectrum provided for reference. See Table 2, entry 16.

30.080

29.887

29.593

29.500

29.310

29.117

28.923

220

200

180

160

140

120

S49 100

80

60

40

20

0

ppm

6-242, ying

exp1 s2pu1

SAMPLE		SPECIAL	
date	Dec 2 2003	temp	not used
solvent	cdcl3	gain	not used
file	exp	spin	not used
ACQUISITION		hst	0.008
sw	3930.8	pw90	19.500
at	2.500	alfa	10.000
np	19654	FLAGS	
fb	2200	il	n
bs	4	in	ny
dl	2.000	dp	y
nt	8	hs	nn
ct	8	PROCESSING	
TRANSMITTER		lb	0.20
tn	H1	fn	not used
sfrq	300.065	DISPLAY	
tof	65.2	sp	-407.8
tpwr	56	wp	3930.8
pw	10.000	rfl	2586.2
DECOUPLER		rfp	2178.5
dn	C13	rp	80.9
dof	0	lp	-63.1
dm	nnn	PLOT	
dmm	c	wc	250
dpwr	38	sc	0
dmf	5600	vs	134
		th	15
		ai	cdc ph

Un-numbered spectrum provided for reference. See Table 2, entry 17.

6-292, ying

expt1 std1h

SAMPLE DEC. & VT
date Apr 14 2004 dfrq 399.941
solvent cdcl3 dn H1
file /export/home/~ dpwr 30
nmrusr/lsl-a/ying/~ dof 0
6-292-h1.fid dm nnn
ACQUISITION dmm c
sfrq 399.941 dmf 200
tn H1 dseq
at 2.202 dres 1.0
np 22912 homo n
sw 5203.3
fb 3000 lb 0.20
bs 16 wtfile
tpwr 58 proc ft
pw 10.0 fn not used
d1 1.000 math f
tof 207.0
nt 16 werr react
ct 0 wexp procplot
alock n wbs
gain not used wnt
FLAGS
il n
in n
dp y
hs nn
DISPLAY
sp -390.3
wp 5203.3
vs 26
sc 0
wc 250
hzmm 20.81
is 14.90
rfl 3293.8
rfp 2903.6
th 10
ins 100.000
nm cdc ph

Un-numbered spectrum provided for reference. See Table 2, entry 17.

vi224 cdc13 1h 11-5-06

File : xp

Sample id : tmpstudy

Pulse Sequence: s2pul

Un-numbered spectrum provided for reference. See Table 2, entry 18.

vi241 cdcl3 1h 11-28-06

File : xp

Sample id : tmpstudy

Pulse Sequence: s2pul

Un-numbered spectrum provided for references. See Table 2, entry 18.

vi241 cdc13 bb 11-28-06

File : xp

Sample id : tmpstudy

Pulse Sequence: s2pul

Un-numbered spectrum provided for reference. See Table 2, entry 18.

1 cdc13 1h 11-19-06
Pulse Sequence: s2pu1

Un-numbered spectrum
provided for reference. See
Table 2, entry 18.

vi241-1 cdcl3 bb 11-28-06

File : xp

Sample id : tmpstudy

Pulse Sequence: s2pul

Un-numbered spectrum
provided for reference. See
Table 2, entry 18.

vi241-2 cdc13 1h 11-28-06

File : xp

Sample id : tmpstudy

Pulse Sequence: s2pul

Un-numbered spectrum
provided for reference. See
Table 2, entry 18.

vi241-2 cdc13 bb 11-28-06

File : xp

Sample id : tmpstudy

Pulse Sequence: s2pul

Un-numbered spectrum
provided for reference. See
Table 2, entry 18.

vi243 acetone-d6 1h 11-17-06

File : xp

Sample id : tmpstudy

Pulse Sequence: s2pul

Un-numbered spectrum
provided for reference. See
Table 2, entry 18.

vi243 acetone-d6 bb 11-16-06

File : xp

Sample id : tmpstudy

Pulse Sequence: s2pul

Un-numbered spectrum
provided for reference. See
Table 2, entry 18.

vi219 cdcl3 1h 11-5-06

File : xp

Sample id : tmpstudy

Pulse Sequence: s2pul

Un-numbered spectrum provided for reference. See Table 2, entry 19.

vi231 cdc13 1h 11-16-06

File : xp

Sample id : tmpstudy

Pulse Sequence: s2pul

Un-numbered spectrum provided for reference. See Table 2, entry 19.

vi231 cdcl3 bb 11-16-06

File : xp

Sample id : tmpstudy

Pulse Sequence: s2pul

Un-numbered spectrum provided for reference. See Table 2, entry 19.

Un-numbered spectrum provided
for reference. See Table 2, entry
19.

vi232 acetone-d6 bb 11-18-06

File : xp

Sample id : tmpstudy

Pulse Sequence: s2pul

Un-numbered spectrum provided for reference. See Table 2, entries 20, 21.

Un-numbered spectrum provided for reference. See Table 2, entries 20, 21.

vi114 cdc13 1h 8-5-06

File : xp

Sample id : tmpstudy

Pulse Sequence: s2pul

Un-numbered spectrum provided for reference. See Table 2, entry 20.

Un-numbered spectrum provided for
reference. See Table 2, entry 21.

v1170 cdc13 bb 9-3-06

Pulse Sequence: s2pul

Un-numbered spectrum provided for reference. See Table 2, entry 21.

File : xp

Sample id : tmpstudy

Pulse Sequence: s2pul

Un-numbered spectrum provided for reference. See Table 2, entries 22, 23.

vi83 cdc13 bb 8-29-06

File : xp

Sample id : tmpstudy

Pulse Sequence: s2pul

Un-numbered spectrum provided for reference. See Table 2, entries 22, 23.

Un-numbered spectrum provided for reference. See Table 2, entries 22, 23.

vi1151 cdcl3 bb 8-30-06

File : xp

Sample id : tmpstudy

Pulse Sequence: s2pul

Un-numbered spectrum provided for reference. See Table 2, entry 22.

vi149 cdc13 bb 8-29-06

File : xp

Sample id : tmpstudy

Pulse Sequence: s2pul

Un-numbered spectrum provided for reference. See Table 2, entry 23.