**Asymmetric Synthesis of *syn*- α -Substituted β -Amino Ketones using Sulfinimines
and Prochiral Weinreb Amide Enolates.**

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Supplemental Information

Part I

^1H and ^{13}C NMR spectra for all new compounds

pages S1-S27

Current Data Parameters

NAME	minsco
EXPNO	402
PROCNO	1

F2 - Acquisition Parameters

Date_	20060308
Time	13.05
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	zg30
TD	65536
SOLVENT	CDCl3
NS	16
DS	0
SWH	8278.146 Hz
FIDRES	0.126314 Hz
AQ	3.9584243 sec
RG	114
DW	60.400 usec
DE	6.00 usec
TE	300.0 K
D1	1.00000000 sec

===== CHANNEL f1 =====

NUC1	¹ H
P1	9.80 usec
PL1	0.00 dB
SFO1	400.1931165 MHz

F2 - Processing parameters

SI	32768
SF	400.1911423 MHz
WDW	EM
SSB	0
LB	0.10 Hz
GB	0
PC	1.00

1D NMR plot parameters

CX	20.00 cm
CY	12.50 cm
FLP	11.000 ppm
F1	4402.10 Hz
F2P	-1.000 ppm
F2	-400.19 Hz
PPMCM	0.60000 ppm/cm
HZCM	240.11469 Hz/cm

Current Data Parameters
NAME minsco
EXPNO 403
PROCNO 1

F2 - Acquisition Parameters
Date_ 20060308
Time 13.26

INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 300
DS 2

SWH 23148.148 Hz
FIDRES 0.353213 Hz
AQ 1.4156276 sec
RG 101.6
DE 21.600 usec
WE 6.00 usec

TE 300.0 K
D1 2.00000000 sec
d11 0.03000000 sec
d12 0.00002000 sec

===== CHANNEL f1 =====
NUC1 13C
P1 5.70 usec
PL1 2.00 dB
SFO1 100.6387191 MHz

===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 92.00 usec
PL2 0.00 dB
PL12 11.00 dB
PL13 120.00 dB
SFO2 400.1927165 MHz

F2 - Processing Parameters
SI 32768
SF 100.6280960 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 1.40

ID NMR plot parameters
CX 22.00 cm
CY 6.00 cm
RIP 220.574 psm
F1 22195.91 Hz
F2 -9.463 psm
P2P -952.24 Hz
P2 10.45621 psm/cm
H2CM 1052.18660 Hz/cm

(6b)

Current Data Parameters

NAME	msong
EXPNO	423
PROCNO	1

F2 - Acquisition Parameters

Date_	20060405
Time	12.27
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	zg30
TD	65536
SOLVENT	CDCl3
NS	16
DS	0
SMH	8278.146 Hz
FIDRES	0.126314 Hz
AQ	3.9584243 sec
RG	161.3
DM	60.400 usec
DE	6.00 usec
TE	300.0 K
D1	1.00000000 sec

==== CHANNEL f1 =====

NUC1	1H
P1	9.80 usec
PL1	0.00 dB
SFO1	400.1931165 MHz

F2 - Processing parameters

SI	32768
SF	400.1911456 MHz
WDW	EM
SSB	0
LB	0.10 Hz
GB	0
PC	1.00

1D NMR plot parameters

CX	20.00 cm
CY	12.50 cm
FLP	11.000 ppm
F1	4402.10 Hz
F2P	-1.000 ppm
F2	-400.19 Hz
PPMCM	0.60000 ppm/cm
HZCM	240.11469 Hz/cm

55

MS-II-105B, carbon2HR, atm,		USER: temple -- DATE: Apr 5 13:38:59 2006 EDT (UT-4h) templ	
F1: 100.628	F2: 1.000	SW1: 23148	OF1: 10621.8
EX: 4-24	PW: 5.7 usec	PD: 2.0 sec	NA: 1200
		LB: 3.0	PTSID: 32768
		WinNuts - \$Minsoo.1

MS-II-93A, proton, atm,		0		PPM	
F1: 400.191	F2: 1.000	USER: temple -- DATE: Mar 22 08:28:24 2006 EST (UT-5h) templ			
EX: 4.00	SW1: 8278	PD: 1.0 sec		OF1: 1980.1	
	PW: 9.8 usec		NA: 16		
		LB: 0.1	PTStd: 32768		WinNuts - \$Mimsoo.1

(7a)

MS-II-93A, carbon30MIN.atm,				USER: temple -- DATE: Mar 22 08:45:55 2006 EST (UT-5h) templ			
F1: 100.628		F2: 1.000		SW1: 23148		OF1: 10621.8	
EX: 410		PW: 5.7 usec		PD: 2.0 sec		NA: 256	
				LB: 3.0		PTSId: 32768	
WinNuts - \$Minsoo.1

(7b)

58

MS-IL-186A									
F1: 300.018	F2: 300.018	SW1: 4800		OF1: 1800.2		PTS1d: 16384	USER: -- DATE: Aug 9 2006		
EX: s2pul		PW: 4.0 usec	PD: 1.0 sec	NA: 8	LB: 0.0		WinNuts - \$PROTON.fid

59

MS-II-186A, pendant 90MIN, atm.		F1: 100.629		F2: 1.000		SW1: 25126		PW: 5.7 usec		PD: 4.0 sec		OF1: 10057.3		NA: 600		LB: 3.0		PTSID: 65536		WinNuts - \$Minsoo, I	
EX:																					

USER: temple -- DATE: Aug 9 17:04:30 2006 EDT (UT-4h) templ

510

MS-II-39A, proton, atm,		USER: temple -- DATE: Jan 6 07:20:57 2006 EST (UT-5h) templ	
F1: 400.191	F2: 1.000	SW1: 8278	PTSID: 32768
EX:	PW: 9.8 usec	PD: 1.0 sec	LB: 0.1
		OF1: 1975.0	WinNuts - \$Minsoc.1
		NA: 16	

file #356 in 400MHz

MS-II-39A, carbon 30 MIN, atm, F1: 100.628 F2: 1.000 SW1: 23148 PW: 5.7 usec PD: 2.0 sec OF1: 10621.8 NA: 1024 LB: 3.0 USER: temple -- DATE: Jan 6 08:21:37 2006 EST (UT-5h) templ PTSId: 32768 WinNuis - \$Minsoo.1

```
Current Data Parameters
NAME          minsoo
EXPNO         565
PROCNO        1
```

```
F2 - Acquisition Parameters
Date_ 20070307
```

Time	8.58
INSTRUM	5 mm spect
PROBHD	PABBO BB-
PULPROG	zg30
TD	65536
SOLVENT	CDCl3
NS	16
DS	0
SWH	8278.146 Hz
FIDRES	0.126314 Hz
AQ	3.9584243 sec
RG	181
DW	60.400 usec
DE	6.00 usec
TE	300.0 K
D1	1.00000000 sec

```
===== CHANNEL f1 =====
```

NUC1	1H
P1	9.80 usec
PL1	0.00 dB
SFO1	400.1931165 MHz

FF2 - Processing parameters

400.1911383 MHz

0
SSB0
3
A
B
B

7
1
3
L
-

20.00 cm

11.000 ppm

-1.000 ppm

	δ , ppm
CH ₃ CN	0.6000
CH ₃ OH	3.40-3.75

240.11469 Hz/

240.11469 Hz/cm

MS-II-298A, carbon30MIN, atm.
 F1: 100.628 F2: 1.000
 EX: SW1: 23148 PW: 5.7 usec PD: 2.0 sec NA: 600 OF1: 10688.2 LB: 3.0
 USER: temple -- DATE: Mar 7 09:36:36 2007 EST (UT-5h) templ
 PTSId: 32768
 WinNuts - \$Minsoo, I

WinNuts - \$Minsoo.1

PPM

USER: temple -- DATE: Apr 7 09:01:08 2006 EDT (UT-4h) temple

PTSID: 32768		
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IND. 000	LB: 3.0	WinNuts - \$Minsoc.1
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(12)

ppm

7.20143
6.76377
5.03920
5.02499
3.66033
3.63536
3.60699
3.37355
3.11187
3.10270
2.56387
2.52499
2.49412
2.19365
1.82609
1.79238
1.77506
1.75719
1.55220
1.53444
1.10450
1.08715
1.06398
1.04619
0.95137
0.93294
0.91440
0.90269
0.88431
0.86584

0.587
6.953
2.619
0.619
27.520
61.702

Integral

ppm

10

8

6

4

2

0

Current Data Parameters
NAME miniso
EXPNO 404
PROCNO 1

F2 - Acquisition Parameters
Date_ 20060310
Time 16.51
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 0
SWH 8278.146 Hz
FIDRES 0.126314 Hz
AQ 3.9584243 sec
RG 64
DE 60.400 usec
TE 300.0 K
D1 1.00000000 sec

===== CHANNEL f1 =====
NUC1 1H
P1 9.80 usec
PL1 0.00 dB
SFO1 400.1931165 MHz

F2 - Processing parameters
SI 32768
SF 400.1911379 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 20.00 cm
CY 12.50 cm
F1P 11.000 ppm
F1 4402.10 Hz
F2P -1.000 ppm
F2 -400.19 Hz
PPMCM 0.60000 ppm/cm
HZCM 240.11469 Hz/cm

MS-II-88A, carbon30MIN.atm, USER: temple -- DATE: Mar 10 17:23:28 2006 EST (UT-5h) temp1
 F1: 100.628 F2: 1.000 SW1: 23148 OF1: 10621.8 PTS1d: 32768
 EX: PW: 5.7 usec PD: 2.0 sec NA: 512 LB: 3.0
 WinNuts - \$Minsoc.1

S18

MS-II-188A, proton, atm, USER: temple -- DATE: Aug 14 09:11:42 2006 EDT (UT-4h) templ

F1: 400.191	F2: 1.000	SW1: 8278	OF1: 1974.0	PTSId: 32768
EX:	PW: 9.8 usec	PD: 1.0 sec	NA: 16	LB: 0.1

WinNuts - \$Minsoo.1

(13)

519

MS-II-188A, carbon2HR.atm.		USER: temple -- DATE: Aug 14 10:12:15 2006 EDT (UT-4h) templ	
F1: 100.628	F2: 1.000	SW1: 23148	OF1: 10621.8
PW: 5.7 usec	PD: 2.0 sec	NA: 1024	LB: 3.0
EX:		PTSId: 32768	WinNuts - \$Minsoo.1

MS-II-94B, proton.atm,

F1: 400.191	F2: 1.000
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SW1: 8278

PW: 9.8 usec

PD: 1.0 sec

OF1: 1946.0

NA: 16

USER: temple --	DATE: Mar 23 08:39:45 2006 EST (UT-5h)	templ
	PTSID: 32768	
LB: 0.1		WinNuts - \$Minsoc 1

PTSID: 32768

LB:0.1

WinNuts - \$Minsoo.1

521

MS-II-94B, carbon30MIN, atm,			
F1: 100.628	F2: 1.000	SW1: 23148	
EX:	PW: 5.7 usec	PD: 2.0 sec	
OF1: 10621.8		NA: 484	
LB: 3.0		PTS1d: 32768	
USER: temple -- DATE: Mar 23 09:12:09 2006 EST (UT-5h) templ			
WinNuts - \$Minsoo.1

PPM

522

MS-II-97B, proton, atm,		USER: temple -- DATE: Mar 27 19:21:35 2006 EST (UT-5h) templ	
F1: 400.191	F2: 1.000	SW1: 8278	OF1: 1941.5
EX:	PW: 9.8 usec	PD: 1.0 sec	NA: 16
		LB: 0.1	PTSId: 32768
			WinNuts - \$Minsoo.1

MS-II-97B, carbon2HR, atm, F1: 100.628 F2: 1.000 SW1: 23148 PW: 5.7 usec PD: 2.0 sec OF1: 10621.8 NA: 1300 LB: 3.0
 USER: temple -- DATE: Mar 29 11:00:42 2006 EST (UT-5h) templ
 EX: PTS1d: 32768 WinNuts - \$Minsoc.1

523

Current Data Parameters
NAME minsoo
EXPNO 486
PROCNO 1

F2 - Acquisition Parameters
Date_ 20060821
Time 12.08
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 0
SWH 8278.146 Hz
FIDRES 0.126314 Hz
AQ 3.9584243 sec
RG 181
DE 60.400 usec
TE 300.0 K
D1 1.00000000 sec

===== CHANNEL f1 =====
NUC1 1H
P1 9.80 usec
PL1 0.00 dB
SFO1 400.1931165 MHz

F2 - Processing parameters
SI 32768
SF 400.1911393 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 20.00 cm
CY 12.50 cm
F1P 11.000 ppm
F1 4402.10 Hz
F2P -1.000 ppm
F2 -400.19 Hz
PPMCM 0.60000 ppm/cm
HZCM 240.11469 Hz/cm

525

MS-II-193A, carbon2HR, atm.					
F1: 100.628	F2: 1.000	SW1: 23148		OF1: 10621.8	
EX:		PW: 5.7 usec	PD: 2.0 sec	NA: 1500	LB: 3.0
USER: temple -- DATE: Aug 21 13:37:04 2006 EDT (UT-4h) templ					
		PTStd: 32768			
WinNuts - \$Minsoo.1

526

MS-II-184A					
F1: 300.018	F2: 300.018	SW1: 4800	PD: 1.0 sec	OF1: 1788.6	PTSId: 16384
EX: s2pul	PW: 4.0 usec	NA: 8	LB: 0.0		

USER: -- DATE: Jul 28 2006

WinNuts - \$PROTON.fid

MS-II-170A, pendant 10MIN.atm,		USER: temple -- DATE: Jul 5 13:29:37 2006 EDT (UT-4h) templ	
F1: 100.629	F2: 1.000	SW1: 25126	OF1: 10057.3
EX:	PW: 5.7 usec	PD: 4.0 sec	NA: 450
		LB: 3.0	PTSId: 65536
		WinNuts - \$Minsoo.1	