Supporting Information:
Highly Stereoselective Addition of Stannylcuprates to Alkynones

Thomas E. Nielsen, Maria A. Cubillo de Dios and David Tanner*

*Department of Chemistry, Technical University of Denmark, Building 201, Kemitorvet, DK-2800
Kgs. Lyngby, Denmark*

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Analytical data for compounds **1c-k**:

4-(tert-Butyl-dimethyl-silanyloxy)-1-phenyl-but-2-yn-1-one (1c). Yields: 73% (**A**) and 71% (**B**); IR (CDCl₃): 2930, 2233, 1648, 1472, 1262, 1176; ¹H NMR (300 MHz, CDCl₃) δ 7.99-7.95 (m, 2H), 7.46-7.28 (m, 3H), 4.42 (s, 2H), 0.77 (s, 9H), 0.00 (s, 6H); ¹³C NMR (75 MHz, CDCl₃) δ 177.9, 136.9, 134.5, 130.0, 128.9, 93.2, 83.1, 52.1, 26.1, 18.6, -4.8; Anal. Calcd for C₁₆H₂₂O₂Si: C, 70.03; H, 8.08. Found: C, 69.75; H, 7.90.

5-(tert-Butyl-dimethyl-silanyloxy)-1-phenyl-pent-2-yn-1-one (1d). Yields: 90% (**A**) and 76% (**B**); IR (CDCl₃): 2931, 2216, 1681, 1472, 1257, 1117, 1112, 838; ¹H NMR (300 MHz, CDCl₃) δ 8.07-8.03 (m, 2H), 7.52-7.33 (m, 3H), 3.77 (t, *J*=7 Hz, 2H), 2.61 (t, *J*=7 Hz, 2H), 0.81 (s, 9H), 0.00 (s, 6H); ¹³C-NMR (75 MHz, CDCl₃) δ 178.3, 137.1, 134.2, 129.9, 128.8, 94.0, 80.6, 61.2, 26.2, 24.0, 18.6, -5.0; Anal. Calcd for C₁₇H₂₄O₂Si: C, 70.78; H, 8.39. Found: C, 70.52; H, 8.12.

6-(tert-Butyl-dimethyl-silanyloxy)-1-phenyl-hex-2-yn-1-one (1e). Yields: 82% (**A**) and 86% (**B**); IR (CDCl₃): 2956, 2253, 1641, 1472, 1267, 1176; ¹H NMR (300 MHz, CDCl₃) δ 8.08-8.04 (m, 2H), δ 7.55-7.36 (m, 3H), 3.69 (t, *J*=6 Hz, 2H), 2.54 (t, *J*=7 Hz, 2H), 1.85-1.78 (m, 2H), 0.84 (s, 9H), 0.00 (s, 6H); ¹³C NMR (75 MHz, CDCl₃) δ 178.3, 137.2, 134.1, 129.8, 128.8, 96.7, 80.6, 61.6, 31.2, 26.2, 18.6, 16.1, -5.0. Anal. Calcd for C₁₈H₂₆O₂Si: C, 71.47; H, 8.66. Found: C, 71.32; H, 8.48.

7-(tert-Butyl-dimethyl-silanyloxy)-1-phenyl-hept-2-yn-1-one (1f). Yields: 84% (**A**) and 80% (**B**); IR (CDCl₃): 2956, 2238, 2202, 1642, 1472, 1450, 1265, 1176; ¹H NMR (300 MHz, CDCl₃) δ 8.09-8.05 (m, 2H), 7.56-7.38 (m, 3H), δ 3.61 (t, *J*=6 Hz, 2H), 2.48 (t, *J*=7 Hz, 2H), 1.76-1.59 (m, 4H), 0.84 (s, 9H), 0.00 (s, 6H); ¹³C NMR (75 MHz, CDCl₃) δ 178.5, 137.3, 134.2, 129.9, 128.8, 96.9, 80.1, 62.7, 32.3, 26.3, 24.9, 19.4, 18.7, -5.0; Anal. Calcd for C₁₈H₂₆O₂Si: C, 72.10; H, 8.92. Found: C, 71.84; H, 8.64.

4-(*tert*-Butyl-dimethyl-silanyloxy)-4-naphthalen-1-yl-1-phenyl-but-2-yn-1-one (1g).

Yield: 60% (A); IR (CDCl₃): 2956, 2253, 1646, 1472, 1450, 1262, 1176; ¹H NMR (300 MHz, CDCl₃) δ 8.25 (d, *J*=7 Hz, 1H), 7.88 (m, 2H), 7.75 (m, 2H), 7.62 (d, *J*=7 Hz, 1H), 7.49-7.23 (m, 6H), 6.14 (s, 1H), 0.82 (s, 9H), 0.10 (s, 3H), 0.00 (s, 3H); ¹³C NMR (75 MHz, CDCl₃) δ 177.8, 136.9, 135.5, 134.3, 134.2, 130.4, 129.8, 129.5, 129.0, 128.7, 126.5, 126.1, 125.5, 124.7, 124.3, 94.4, 83.5, 64.3, 26.0, 18.6, -4.4; Anal. Calcd for C₂₆H₂₈O₂Si: C, 77.94; H, 7.06. Found: C, 77.82; H, 6.92.

5-(*tert*-Butyl-dimethyl-silanyloxy)-1-cyclohexyl-pent-2-yn-1-one (1h). Yield: 84% (A);

IR (CDCl₃): 2928, 2215, 1670, 1253, 1112; ¹H NMR (300 MHz, CDCl₃) δ 3.77 (t, *J*=7 Hz, 2H), 2.57 (t, *J*=7 Hz, 2H), 2.42-2.27 (m, 1H), 2.02-1.67 (m, 2H), 1.81-1.06 (m, 8H), 0.88 (s, 9H), 0.06 (s, 6H); ¹³C NMR (75 MHz, CDCl₃) δ 191.3, 91.7, 80.8, 60.8, 52.2, 28.2, 25.8, 25.4, 23.4, 18.2, -5.4; Anal. Calcd for C₁₇H₃₀O₂Si: C, 69.31; H, 10.28. Found: C, 69.57; H, 10.06.

7-(*tert*-Butyl-dimethyl-silanyloxy)-2,2-dimethyl-hept-4-yn-3-one (1i). Yield: 35% (A)

and 72% (B); IR (CDCl₃): 3442, 2210, 1671, 1473, 1258, 1152; ¹H NMR (300 MHz, CDCl₃) δ 3.77 (t, *J*=7 Hz, 2H), δ 2.58 (t, *J*=7 Hz, 2H), δ 1.17 (s, 9H), δ 0.88 (s, 9H), δ 0.06 (s, 6H); ¹³C NMR (75 MHz, CDCl₃) δ 194.2, 92.6, 79.5, 60.9, 44.6, 26.0, 25.8, 23.5, 18.2, -5.4; Anal. Calcd for C₁₅H₂₈O₂Si: C, 77.94; H, 7.06. Found: C, 77.82; H, 6.92.

7-(*tert*-Butyl-dimethyl-silanyloxy)-2-methyl-hept-4-yn-3-one (1j). Yield: 74% (A); IR

(CDCl₃): 2931, 2214, 1676, 1472, 1252; ¹H NMR (300 MHz, CDCl₃) δ 3.77 (t, *J*=7 Hz, 2H), 2.59 (hept, *J*=7 Hz, 1H), 2.57 (t, *J*=7 Hz, 2H), 1.16 (d, *J*=7 Hz, 6H), 0.88 (s, 9H), 0.06 (s, 6H); ¹³C-NMR (75 MHz, CDCl₃) δ 192.0, 91.9, 80.5, 60.8, 42.9, 25.8, 23.4, 18.2, 17.9, -5.4; Anal. Calcd for C₁₄H₂₆O₂Si: C, 66.07; H, 10.32. Found: C, 66.32; H, 10.10.

7-(*tert*-Butyl-dimethyl-silanyloxy)-hepty-4-yn-3-one (1k). Yield: 71% (A); IR(CDCl₃):

2930, 2216, 1680, 1472, 1255, 1177; ¹H NMR (300 MHz, CDCl₃) δ 3.79 (t, *J*=7 Hz, 2H), 2.58 (t,

$J=7$ Hz, 2H), 2.56 (q, $J=7$ Hz, 2H), 1.15 (t, $J=7$ Hz, 3H), 0.91 (s, 9H), 0.09 (s, 6H); ^{13}C NMR (75 MHz, CDCl_3) δ 188.5, 91.0, 81.4, 60.8, 38.7, 25.8, 23.4, 18.3, 8.1, -5.3; Anal. Calcd for $\text{C}_{13}\text{H}_{24}\text{O}_2\text{Si}$: C, 64.93; H, 10.08. Found: C, 65.08; H, 9.92.

di-tert-butyltinane and alkyl carboxylic acid
STANDARD IN OBSERVE

Pulse Sequence: s2pul
Date: Jan 17 2001
Solvent: cdcl3
Temp: 30.0 C / 303.1 K
Sample #8
File: 801
Mercury-300 "mar300"
PULSE SEQUENCE
Relax: delay 1.000 sec
Pulse: zgpg30
Acq. time 5.461 sec
Width 6000.0 Hz
8 repetitions
OBSERVED FID
F2 size 65536
DATA PROCESSING
Total time 1 minute

(Z)-1-Phenyl-3-tributylstannanyl-hept-2-en-1-one (2a).

di-tert-butyl-4-phenyl-1,3-butadiene
 13C OBSERVE

Pulse Sequence: zgpg30
 Date: Jan 17 2001
 Solvent: cdcl3
 Temp: 30.0 C / 303.1 K
 Sample: 401
 File: 1101
 Mercury-300 "nmr300"
 PULSE SEQUENCE
 Relax delay 1.000 sec
 Polarity: 401
 Acq. time 1.815 sec
 Width 17000.0 Hz
 256 repetitions
 OBSERVE C11 305.4495244 MHz
 DECOUPLE H1 300.0590417 MHz
 Power 38 dB
 Continuous ON
 VOLTAGE MODULATED
 DATA PROCESSING
 Line broadening 1.0 Hz
 Frequency offset 0.000 MHz
 Total time 12 minutes

(2)-1-Phenyl-3-tributylstannanyl-hept-2-en-1-one (2a).

diten-stannane c-6arom c-6arom
13C OBSERVE

Pulse Sequence: szpul
Date: Jan 24 2001
Solvent: cdc13
Temp: 30.0 C / 303.1 K
Spectrum: 13C
File: 2301
Mercury-380 "mar380"
PULSE SEQUENCE
Relax. delay 1.000 sec
Acq. time 1.815 sec
Width 17800.0 Hz
SSB repetitions 5.4455244 MHz
DECOUPLE H1: 300.0550417 MHz
Power 39 dB
Continuously on
Continuously on
Line broadening 1.0 Hz
DATA PROCESSING
F2 122.555 MHz
Total time 12 minutes 1

(Z)-1,3-Diphenyl-3-tributylstannanyl-propenone (2b).

STANDARD PROTON PARAMETERS

expl s2pul
 SAMPLE
 date Mar 12 2001 dfrq DEC. & VT
 solvent CDC13 dn 125.704
 file C13
 acquisition exp dpwr 32
 Acor 0
 sfreq 499.870 ddr nnc
 tn 499.870 dm c
 at 2.345 dmf 11224
 np 32768 deeq
 pw 63801.1 fms 1.0
 fs 4000 Noms
 bs 32 temp 30.0
 tpwr 55 PROCESSING
 pw 4.5 wfile
 tof 18.2 fmc not used
 nt 8 math f
 ct 8 werr
 alock n
 gain not used wds
 fl flags n wnt wft
 in n
 dp n
 ns y
 DISPLAY
 sp -976.1
 wp 6968.1
 xc 200
 sc 265
 wc 265
 hzmm 26.37
 ls 274.99
 rf1 684.1
 rfp 3634.1
 th 2
 ins 2.000
 al ph

(Z)-4-(*tert*-Butyl-dimethyl-silanyloxy)-1-phenyl-3-tributylstannanyl-but-2-en-1-one (2c).

dtten-stannane n=2 carbon
13C OBSERVE

Pulse Sequence: s2pu1

Date: Nov 21 2000

Date: Nov 21 2000
Solvent: cdcl3

Temp. 30.0 C / 303.1 K

Sample #18

File: 1801
MERCURY-300 "DME 300"

Mercury-300 "nmr300" pulse sequence

PULSE SEQUENCE
Relax. delay 1.000 s

Relax. delay 1.000 sec
Pulse 45.0 degrees

Pulse 45.0 degrees
Acq. time 1.015 sec

Width 17000.0 Hz

256 repetitions

	CI3	CI4
OBSERVE	75.4491	75.4491
DECOUPLE	300.0590	300.0590

DECOUPLE HI, 300.0590
Power 39 dB

continuously on

WALTZ-16 modulated
DATA PROCESSING

DATA PROCESSING
Line broadening 1.0 Hz

Line broadening 1.0 Hz
FT size 65536

Total time 12 minutes

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diisotannans n-3 c5arom elem ana
STANDARD IN OBSERVE

Pulse Sequence: z2pul
Date: Jan 16 2001
Solvent: cdcl3
Temp: 29.8 C / 303.1 K
Sample #12
File: 1201
Mercury-300 "nuc300"
PULSE SEQUENCE
Relax. delay 1.000 sec
Pulse 45.0 degrees
Pulse time 0.000 sec
Width 6000.0 Hz
8 repetitions
OBSERVE H1 300.0576179 MHz
DATA PROCESSING
P1 0.000 sec
Total time 1 minute

(Z)-6-(tert-Butyl-dimethyl-silanyloxy)-1-phenyl-3-tributylstannanyl-hex-2-en-1-one (2e).

dition-stannane C₆Ar_{om} n=4 ho cuprate + h₂O
STANDARD 1H OBSERVE

Pulse Sequence: s2pul
Date: Mar 29 2001
Solvent: CCl₃
Sample Temp: 18 °C / 303.1 K
Sample #5
File: 501
Mercury-3000B "nmr300"
PULSE SEQUENCE
Relax. delay 1.000 sec
Pulse 15.0 degrees
Acq. time 0.010 sec
Width 6000.0 Hz
8 repetitions
OBSERVE H1, 300.0576075 MHz
DATA PROCESSING
F1: F5033
Total time 1 minute

(*Z*)-6-(*tert*-Butyl-dimethyl-silanyloxy)-1-phenyl-3-tributylstannanyl-hept-2-en-1-one
(2f).

ditien-stannane c=6arom ns4 no cuprate
13C OBSERVE

Pulse Sequence: t2pu1
Date: Mar 29 2001
Solvent: cdcl3
Temp: 30.0 C / 303.1 K
Sweep rate: 1000 Hz
File: 601
Mercury-3000B "nmr300"
PULSE SEQUENCE
Relax. delay 1.000 sec
Acq. time 1.815 sec
Width 17000.0 Hz
256 repetitions 5.4451453 MHz
DECUPLE CH1 300.5550417 MHz
Power 39 dB
continuously on
continuously on
DATA PROCESSING
Line broadening 1.0 Hz
FS size 8533
Total time 12 minutes

(2)-6-(tert-butyl-dimethyl-silanyloxy)-1-phenyl-3-tributylstannanyl-hept-2-en-1-one
(2f).

STANDARD PROTON PARAMETERS

expl szpu1

date	Mar 15 2001	DEC. & VT	125.704
file	CHS13	exp	32
file	ACQUISITION	exp	32
sfrq	499.870	dm	nnn
tn	2.36	dm	11224
pc	32768	dsen	1.0
sw	6388.1	dres	30.0
fb	4000	homo	30.0
bs	32	temp	PROCESSING
pw	4.5	wtfile	
dl	0	proc	ft
tof	18.2	fn	not used
nt	0	math	r
clock	0	math	
gain	not used	werr	
gain	not used	wexp	
flags	not used	wbs	
l1	n	wnt	wft
l2	n		
l3	n		
l4	n		
l5	n		
l6	n		
l7	n		
l8	n		
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l92	n		
l93	n		
l94	n		
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l96	n		
l97	n		
l98	n		
l99	n		
l100	n

(Z)-4-(*tert*-Butyl-dimethyl-silanyloxy)-4-naphthalen-1-yl-1-phenyl-3-tributylstannanyl-but-2-en-1-one (2g).

dlten-stannoac c6 alif, n=2 flash mc batch
STANDARD 1H OBSERVE

Pulse Sequence: s2pul
Date: May 2 2001
Sample: c617
Temp: 30.0 C / 303.1 K
Sample #4
File: 401
Mercury-3000B "nmr300"
PULSE SEQUENCE
Relax. delay 1.000 sec
Acq. time 5.401 sec
Width 6000.0 Hz
8 repetitions
OBSERVE H1, 300.0576121 MHz
DATA PROCESSING
FT size 65336
Total time 1 minute

(Z)-7-(tert-Butyl-dimethyl-silanyloxy)-1-cyclohexyl-3-tributylstannanyl-pent-2-en-1-one (2h).

STANDARD CARBON PARAMETERS

exp2 szju1

SAMPLE		DEC. & VT	
date	Mar 24 2001	dfc	435.820
solvent	CDCl3	dn	32
file	ACQUISITION	exp	0
tr	125.764	dm	11224
at	1.301	daf	
sp	29983	dseq	1.0
fb	17000	homo	36.0
bs	64	temp	0.50
pw	8.0	lb	0.50
di	1000	proc	not used
ct	1000	math	
gain	50	werr	
flags	n	was	
in	n	wnt	
ns	3002.3	display	nm
sp	23955.3	ncmm	113.265
ws	140	ns	500.00
sc	140	rfl	12762.0
ncmm	113.265	rff	9679.0
ns	500.00	ins	1.000
rfl	12762.0	na	cdc
rff	9679.0	ph	
ins	1.000

(Z)-7-(*tert*-Butyl-dimethyl-silanyloxy)-1-cyclohexyl-3-tributylstannanyl-pent-2-en-1-one (2h).

dtten-stannane c=4 n=2
STANDARD IN OBSERVE

Pulse Sequence: s2pul
Date: Dec 20 2000
Solvent: cdcl3
Temp. 30.0 C / 303.1 K
Sample #2
Mercury-300 "nuc300"
PULSE SEQUENCE
Relax. delay 1.000 sec
Pulse 45.0 degrees
Acq. time 5.461 sec
Width 6000.0 Hz
Sweep 11.000 Hz
OBSERVE H1, 300.0576121 MHz
DATA PROCESSING
FT size 65536
Total time 1 minute

(Z)-7-(tert-Butyl-dimethyl-silanyloxy)-2,2-dimethyl-5-tributylstannanyl-hept-4-en-3-one (2i).

```

Pulse Sequence: s2pul
Date: 09/09/2000
Solvent: cdcl3
Temp: 30.0 C / 303.1 K
Sample: 20
Conc: 100 mg/ml
Mercury: 320 "mr350"

PULSE SEQUENCE
RELAX: delay 1.000 sec
pulse 45.0 degrees
Acq: time 0.015 sec
SOLVENT DECOUPLING
256 repetitions
OBSERVE c13, 75-4491464 MHz
DECOUPLE h1, 300.0530417 MHz
continuously on
WALT-16 modulated
DATA PROCESSING
F1 F2 F3
P1 1.00000000 sec
P2 1.00000000 sec
P3 1.00000000 sec
P4 1.00000000 sec
P5 1.00000000 sec
P6 1.00000000 sec
P7 1.00000000 sec
P8 1.00000000 sec
P9 1.00000000 sec
P10 1.00000000 sec
P11 1.00000000 sec
P12 1.00000000 sec
P13 1.00000000 sec
P14 1.00000000 sec
P15 1.00000000 sec
P16 1.00000000 sec
P17 1.00000000 sec
P18 1.00000000 sec
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P139 1.00000000 sec
P140 1.00000000 sec
P141 1.00000000 sec
P142 1.00000000 sec
P143 1.00000000 sec
P144 1.00000000 sec
P145 1.00000000 sec
P146 1.00000000 sec
P147 1.00000000 sec
P148 1.00000000 sec
P149 1.00000000 sec
P150 1.00000000 sec
P151 1.00000000 sec
P152 1.00000000 sec
P153 1.00000000 sec
P154 1.00000000 sec
P155 1.00000000 sec
P156 1.00000000 sec
P157 1.00000000 sec
P158 1.00000000 sec
P159 1.00000000 sec
P160 1.00000000 sec
P161 1.00000000 sec
P162 1.00000000 sec
P163 1.00000000 sec
P164 1.00000000 sec
P165 1.00000000 sec
P166 1.00000000 sec
P167 1.00000000 sec
P168 1.00000000 sec
P169 1.00000000 sec
P170 1.00000000 sec
P171 1.00000000 sec
P172 1.00000000 sec
P173 1.00000000 sec
P174 1.00000000 sec
P175 1.00000000 sec
P176 1.00000000 sec
P177 1.00000000 sec
P178 1.00000000 sec
P179 1.00000000 sec
P180 1.00000000 sec
P181 1.00000000 sec
P182 1.00000000 sec
P183 1.00000000 sec
P184 1.00000000 sec
P185 1.00000000 sec
P186 1.00000000 sec
P187 1.00000000 sec
P188 1.00000000 sec
P189 1.00000000 sec
P190 1.00000000 sec
P191 1.00000000 sec
P192 1.00000000 sec
P193 1.00000000 sec
P194 1.00000000 sec
P195 1.00000000 sec
P196 1.00000000 sec
P197 1.00000000 sec
P198 1.00000000 sec
P199 1.00000000 sec
P200 1.00000000 sec
P201 1.00000000 sec
P202 1.00000000 sec
P203 1.00000000 sec
P204 1.00000000 sec
P205 1.00000000 sec
P206 1.00000000 sec
P207 1.00000000 sec
P208 1.00000000 sec
P209 1.00000000 sec
P210 1.00000000 sec
P211 1.00000000 sec
P212 1.00000000 sec
P213 1.00000000 sec
P214 1.00000000 sec
P215 1.00000000 sec
P216 1.00000000 sec
P217 1.00000000 sec
P218 1.00000000 sec
P219 1.00000000 sec
P220 1.00000000 sec
P221 1.00000000 sec
P222 1.00000000 sec
P223 1.00000000 sec
P224 1.00000000 sec
P225 1.00000000 sec
P226 1.00000000 sec
P227 1.00000000 sec
P228 1.00000000 sec
P229 1.00000000 sec
P230 1.00000000 sec
P231 1.00000000 sec
P232 1.00000000 sec
P233 1.00000000 sec
P234 1.00000000 sec
P235 1.00000000 sec
P236 1.00000000 sec
```

(Z)-7-(*tert*-Butyl-dimethyl-silanyloxy)-2,2-dimethyl-5-tributylstannanyl-hept-4-en-3-one (2i).

```
Pulse Sequence: s2pul
Date: Sep 7 2000
Solvent: cdcl3
Temp. 30.0 C / 303.1 K
Sample 438
File: 3801
Mercury-300 "nmr300"

PULSE SEQUENCE
Relax. delay 1.000 sec
Pulse 45.0 degrees
Acq. time 5.461 sec
Width 6000.0 Hz
8 repetitions
OBSERVE H1, 300.057612
DATA PROCESSING
FT size 65536
Total time 1 minute
```

(Z)-7-(*tert*-Butyl-dimethyl-silanyloxy)-2-methyl-5-tributylstannanyl-hept-4-en-3-one (2j).

dt ma AB(11-16)
13C OBSERVE

Pulse Sequence: s2pul
Date: Sep 7 2000
Solvent: cdcl3
Temp: 30.0 C / 303.1 K
Sensitivity: 300
F1: 300
Mercury-300 "mar300"
PULSE SEQUENCE
Relax. delay 1.000 sec
Acq 45.0 degrees
Width 1766.0 Hz
256 repetitions
DECOUPLE H1, 300.0556417 MHz
Power 38 dB
continuously on
Data collected
DATA PROCESSING
Line broadening 1.0 Hz
F2 size 65536
Total time 12 minutes

(2)-7-(tert-butyl-dimethyl-silyloxy)-2-methyl-5-tributylstannanyl-hept-4-en-3-one
(2j).

expl s2pu1

SAMPLE	date	Mar 9 2001	dfrq	125.780	DEC. & VT
solvent	file	CDCl3	dn	125.780	
ACQUISITION	exp	dpr	32	0	
439.870	dm	dof	0	0	
2.345	dsq	da	0	0	
32768	dreq	dm	0	0	
6986.1	dres	dsq	0	0	
4000	homo	dtemp	0	0	
32	temp	homo	0	0	
4.5	wifile	temp	0	0	
0	proc	wifile	0	0	
18.2	fn	proc	0	0	
8	math	fn	0	0	
8	werr	math	0	0	
not used	wexp	werr	0	0	
FLAGS	n	wexp	0	0	
11	l1	n	0	0	
11	l2	l1	0	0	
11	l3	l2	0	0	
11	l4	l3	0	0	
11	l5	l4	0	0	
11	l6	l5	0	0	
11	l7	l6	0	0	
11	l8	l7	0	0	
11	l9	l8	0	0	
11	l10	l9	0	0	
11	l11	l10	0	0	
11	l12	l11	0	0	
11	l13	l12	0	0	
11	l14	l13	0	0	
11	l15	l14	0	0	
11	l16	l15	0	0	
11	l17	l16	0	0	
11	l18	l17	0	0	
11	l19	l18	0	0	
11	l20	l19	0	0	
11	l21	l20	0	0	
11	l22	l21	0	0	
11	l23	l22	0	0	
11	l24	l23	0	0	
11	l25	l24	0	0	
11	l26	l25	0	0	
11	l27	l26	0	0	
11	l28	l27	0	0	
11	l29	l28	0	0	
11	l30	l29	0	0	
11	l31	l30	0	0	
11	l32	l31	0	0	
11	l33	l32	0	0	
11	l34	l33	0	0	
11	l35	l34	0	0	
11	l36	l35	0	0	
11	l37	l36	0	0	
11	l38	l37	0	0	
11	l39	l38	0	0	
11	l40	l39	0	0	
11	l41	l40	0	0	
11	l42	l41	0	0	
11	l43	l42	0	0	
11	l44	l43	0	0	
11	l45	l44	0	0	
11	l46	l45	0	0	
11	l47	l46	0	0	
11	l48	l47	0	0	
11	l49	l48	0	0	
11	l50	l49	0	0	
11	l51	l50	0	0	
11	l52	l51	0	0	
11	l53	l52	0	0	
11	l54	l53	0	0	
11	l55	l54	0	0	
11	l56	l55	0	0	
11	l57	l56	0	0	
11	l58	l57	0	0	
11	l59	l58	0	0	
11	l60	l59	0	0	
11	l61	l60	0	0	
11	l62	l61	0	0	
11	l63	l62	0	0	
11	l64	l63	0	0	
11	l65	l64	0	0	
11	l66	l65	0	0	
11	l67	l66	0	0	
11	l68	l67	0	0	
11	l69	l68	0	0	
11	l70	l69	0	0	
11	l71	l70	0	0	
11	l72	l71	0	0	
11	l73	l72	0	0	
11	l74	l73	0	0	
11	l75	l74	0	0	
11	l76	l75	0

(Z)-7-(*tert*-Butyl-dimethyl-silanyloxy)-5-tributylstannanyl-hept-4-en-3-one (2k).

dlten-stannane.cx4.n=2.smec3.f3-6
STANDARD 1H OBSERVE

Pulse Sequence: s2pul
Date: Mar 30 2001
Sample: 1901
Temp: 30.0 C / 303.1 K
Sample #19
File: 1901
Mercury-3000B "nmr300"
PULSE SEQUENCE
Relax: delay 1.000 sec
Relax: delay 1.000 sec
Acq time 5.461 sec
Width 6000.0 Hz
8 repetitions 300.0576075 MHz
DATA PROCESSING
FT size 65536
Total time 1 minute

(Z)-7-(*tert*-Butyl-dimethyl-silanyloxy)-2,2-dimethyl-5-trimethylstannanyl-hept-4-en-3-one (7).

dtien-stannane c-4 n-2 smee3 flash f3-6
13C OBSERVE

Pulse Sequence: s2pul
Date: Mar 30 2001
Solvent: cdcl3
Temp: 150 C / 303.1 K
Sample #20
File: 2001
Mercury-300BB "nmr300"
PULSE SEQUENCE
Pulse 1: 20.000 sec
Pulse 2: 4.000 sec
Acq. time 1.815 sec
Width 17000.0 Hz
Sensitivity 1.000
OBSERVE C13 75.4491453 MHz
DECOUPLE H1 300.0598417 MHz
Power 39 dB
Continued on
WALTZ-16 modulated
DATA PROCESSING
FT line broadening 1.0 Hz
FT resolution 0.33 Hz
Total time 12 minutes

(2Z)-7-(tert-Butyl-dimethyl-silanyloxy)-2,2-dimethyl-5-trimethylstannanyl-hept-4-en-3-one (7).