NMR Spectra of Key compounds

Metal-Catalyzed Chemoselective Cycloisomerization of *cis*-2,4-Dien-1-als to 3-Cyclopentenones and 4-Alkylidene-3,4-dihydro-2*H*-pyrans.

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NMR Spectra of Compounds 1 and 3-52.....S2-S50

STANDARD 1H OBSERVE

```

exp4 stdsh
SAMPLE
date Mar 1 2006 dfrq DEC. & VT 400.454
solvent CDC13 dn H1
file exp dpr 42
ACQUISITION dof 0
sfrq 400.455 dm nmh
tn M1 dam 8000 C
at 2.664 def PROCESSING 8000
np 32516 lb 0.10
sw 6000.6 wfile
fb 3480 wnt
bs 4 proc ft
tpwr 50 fn not used
pw 6.0
d1 1.800 werr
tof 500.0 wep
nt 100 wbt wft aph
ct 36 wnt
atock n
gain not used
FLAGS
il n
in n
dp y
DISPLAY
sp -200.2
wp 4204.5
vs 150
vc 0
wc 250
hzam 3.23
ls 22.85
rfi 2394.3
rfp 2893.3
tn 6
lms 1.000
nm ph

```

```

13C OBSERVE
exp2 std13c
SAMPLE
date Mar 1 2006 dfrq DEC. & VT 400.454
solvent CDC13 dn H1
file exp dpr 42
ACQUISITION dof 0
sfrq 100.755 dm 300 V
tn C13 dam 8000 W
at 6.635 def PROCESSING 8000
np 32680 lb 3.00
sw 25188.9 wfile
fb 13800 wnt
bs 4 proc ft
tpwr 50 fn not used
pw 6.5
d1 2.000 werr
tof 2000.0 wep
nt 1024 wbt wft
ct 36 wnt
atock n
gain not used
FLAGS
il n
in n
dp y
DISPLAY
sp -0.2
wp 23159.4
vs 100
vc 0
wc 250
hzam 52.44
ls 500.80
rfi 6546.0
rfp 7753.4
tn 2
lms 100.000
nm ph

```

Current Data Parameters
NAME 10-101
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20050928
Time 20:49
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 16
DS 0
SWH 9615.385 Hz
FIDRES 0.291438 Hz
AQ 1.703980 sec
RG 32
DM 52.000 usec
DE 6.50 usec
TE 303.8 K
SI 0.02000000 sec
MCKEY 0.00000000 sec
MCNEX 0.01500000 sec

***** CHANNEL f1 *****
NUC1 1H
P1 10.00 usec
PL1 0.00 dB
SFO1 599.6029980 MHz

F2 - Processing parameters
SI 32768
SF 599.6000293 MHz
RG 32
GB 0
LB 0.00 Hz
GB 0
PC 2.00

1D NMR plot parameters
CX 20.00 cm
CY 10.00 cm
FIP 9.500 ppm
FI 5696.20 Hz
F2P -0.500 ppm
F2 -299.80 Hz
FPCW 0.50000 ppm/cm
SCW 299.80000 Hz/cm

exp9 stdih

date	Feb 22 2006	DEC. & VT
solvent	CDCl3	dm
file	exp	dpwr
ACQUISITION	exp	dof
sfreq	400.455	da
tn	0	dam
at	2.664	def
np	32000	PROCESSING
sv	6009.6	lb
fb	3400	wtfile
ds	4	proc
tpwr	6.5	fn
di	1.000	werr
tof	500.9	wexp
nt	100	wbs
ct	8	wnt
clock	n	wft
gain	not used	
FLAGS	n	
in	n	
dp	y	
sp	DISPLAY	
wp	-200.4	
vs	4004.2	
sc	0	
hc	250	
hzam	16.02	
rs	29.30	
rfl	495.3	
rtp	3	
ins	1.000	
na	ph	

13C OBSERVE

exp3 stdihc

date	Feb 23 2006	DEC. & VT
solvent	CDCl3	dm
file	exp	dpwr
ACQUISITION	exp	dof
sfreq	100.755	da
tn	0	dam
at	6.635	def
np	32000	PROCESSING
sv	25100.9	lb
fb	13000	wtfile
ds	4	proc
tpwr	6.5	fn
di	1.500	werr
tof	2000.0	wexp
nt	2000	wbs
ct	812	wnt
clock	n	wft
gain	not used	
FLAGS	n	
in	n	
dp	y	
sp	DISPLAY	
wp	-0.2	
vs	26130.2	
sc	45	
hc	0	
hzam	250	
rs	80.56	
rfl	500.00	
rtp	8839.1	
ins	7753.4	
na	100.000	