SUPPLEMENTARY NMR SPECTRA

for
the
communication
entitled

Synthesis of the C1-C23 Fragment of Spirastrellolide A.

authored by

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Solvent: CDCl₃
Starting Time: 15:11:29
Completion Time: 15:11:52
Total acq. time 1 minute
UNITYplus-300 "vyr300"
Ambient temperature
PULSE SEQUENCE
Relax. delay 1.500 sec
Pulse 90.0 degrees
Acq. time 1.999 sec
Width 6003.3 Hz
4 repetitions
OBSERVE H1, 299.8276374 MHz
DATA PROCESSING
Line broadening 0.1 Hz
FT size 131072

Solvent: CDCl₃
 Starting Time: 15:11:29
 Completion Time: 15:11:52
 Total acq. time 1 minute
 UNITYplus-300 "vyr300"
 Ambient temperature
 PULSE SEQUENCE
 Relax. delay 1.500 sec
 Pulse 90.0 degrees
 Acq. time 1.999 sec
 Width 6003.3 Hz
 4 repetitions
 OBSERVE H1, 299.8276374 MHz
 DATA PROCESSING
 Line broadening 0.1 Hz
 FT size 131072

Solvent: CDCl₃
 Starting Time: 10:29:00
 Completion Time: 10:29:30
 Total acq. time 1 minute
 UNITYplus-500 "v1500"
 Ambient temperature
 PULSE SEQUENCE
 Relax. delay 1.500 sec
 Pulse 90.0 degrees
 Acq. time 1.832 sec
 Width 8000.0 Hz
 4 repetitions
 OBSERVE H1, 499.8671219 MHz
 DATA PROCESSING
 Line broadening 0.1 Hz
 FT size 32768

S25 824 813

S25 824 813

S24 813

S2

Solvent: CDCl₃
 Starting Time: 15:10:08
 Completion Time: 15:14:34
 Total acq. time 4 minutes
 UNITYplus-500 "v1500"
 Ambient temperature
 PULSE SEQUENCE
 Relax. delay 5.000 sec
 Pulse 87.5 degrees
 Acq. time 0.960 sec
 Width 32989.7 Hz
 32 repetitions
 OBSERVE C13, 125.6916844 MHz
 DECOUPLE H1, 499.8696213 MHz
 Power 36 dB
 on during acquisition
 off during delay
 WALTZ-16 modulated
 DATA PROCESSING
 Line broadening 1.0 Hz
 FT size 65536

2

Solvent: CDCl₃
 Starting Time: 16:29:00
 Completion Time: 16:29:38
 Total acq. time 1 minute
 UNITYplus-500 "v1500"
 Ambient temperature
 PULSE SEQUENCE
 Relax. delay 1.500 sec
 Pulse 90.0 degrees
 Acq. time 1.832 sec
 Width 8000.0 Hz
 4 repetitions
 OBSERVE H1, 499.8671219 MHz
 DATA PROCESSING
 Line broadening 0.1 Hz
 FT size 32768

S27

S27

2

Solvent: CDCl₃
 Starting Time: 15:10:00
 Completion Time: 15:14:34
 Total acq. time 4 minutes
 UNITYplus-500 "v1500"
 Ambient temperature
 PULSE SEQUENCE
 Relax. delay 5.000 sec
 Pulse 67.5 degrees
 Acq. time 0.960 sec
 Width 32889.7 Hz
 32 repetitions
 OBSERVE C13, 125.6916844 MHz
 DECOUPLE H1, 499.8696213 MHz
 Power 36 dB
 on during acquisition
 off during delay
 WALTZ-16 modulated
 DATA PROCESSING
 Line broadening 1.0 Hz
 FT size 65536

S3

Solvent: CDCl₃
 Starting Time: 18:29:09
 Completion Time: 18:29:09
 Total acq. time 1 minute
 UNITYplus-500 "v1500"
 Ambient temperature
 PULSE SEQUENCE
 Relax. delay 1.500 sec
 Pulse 90.0 degrees
 Acq. time 1.892 sec
 Width 8000.0 Hz
 4 repetitions
 OBSERVE H1, 499.8671219 MHz
 DATA PROCESSING
 Line broadening 0.1 Hz
 FT size 32768

S29

S3

Solvent: C6Cl6
 Starting Time: 15:10:08
 Completion Time: 15:14:34
 Total acq. time 4 minutes
 UNITYplus-500 "v1500"
 Ambient temperature
 PULSE SEQUENCE
 Relax. delay 5.000 sec
 Pulse 67.5 degrees
 Acq. time 0.960 sec
 Width 32889.7 Hz
 32 repetitions
 OBSERVE C13, 125.6916844 MHz
 DECOUPLE H1, 499.8696213 MHz
 Power 36 dB
 on during acquisition
 off during delay
 WALTZ-16 modulated
 DATA PROCESSING
 Line broadening 1.0 Hz
 FT size 65536

3

Solvent: CDCl₃
 Starting Time: 16:29:00
 Completion Time: 16:29:38
 Total acq. time 1 minute
 UNITYplus-500 "v1500"
 Ambient temperature
 PULSE SEQUENCE
 Relax. delay 1.500 sec
 Pulse 90.0 degrees
 Acq. time 1.832 sec
 Width 8000.0 Hz
 4 repetitions
 OBSERVE H1, 499.8671219 MHz
 DATA PROCESSING
 Line broadening 0.1 Hz
 FT size 32768

3

Solvent: CDCl₃
 Starting Time: 15:10:00
 Completion Time: 15:14:34
 Total acq. time 4 minutes
 UNITYplus-500 "v1500"
 Ambient temperature
 PULSE SEQUENCE
 Relax. delay 5.000 sec
 Pulse 67.5 degrees
 Acq. time 0.960 sec
 Width 32989.7 Hz
 32 repetitions
 OBSERVE C13, 125.6916844 MHz
 DECOUPLE H1, 499.8696213 MHz
 Power 36 dB
 on during acquisition
 off during delay
 WALTZ-16 modulated
 DATA PROCESSING
 Line broadening 1.0 Hz
 FT size 65536

Solvent: CDCl₃
 Starting Time: 18:20:00
 Completion Time: 18:20:38
 Total acq. time 1 minute
 UNITYplus-500 "v1500"
 Ambient temperature
 PULSE SEQUENCE
 Relax. delay 1.500 sec
 Pulse 90.0 degrees
 Acq. time 1.892 sec
 Width 8000.0 Hz
 4 repetitions
 OBSERVE H1, 499.8671219 MHz
 DATA PROCESSING
 Line broadening 0.1 Hz
 FT size 32768

Solvent: CDCl3
Starting Time: 10:56:07
Completion Time: 11:00:36
Total acq. time 4 minutes
UNITYplus-500 "v1500"
Ambient temperature
PULSE SEQUENCE
Relax. delay 5.000 sec
Pulse 67.5 degrees
Acq. time 0.960 sec
Width 32989.7 Hz
32 repetitions
OBSERVE C13, 125.6816844 MHz
DECOUPLE H1, 499.8696213 MHz
Power 36 dB
on during acquisition
off during delay
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 65536

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

[Faint handwritten signature]

8

Solvent: CDC13
 Starting Time: 15:11:29
 Completion Time: 15:11:52
 Total acq. time 1 minute
 UNITYplus-300 "vyr300"
 Ambient temperature
 PULSE SEQUENCE
 Relax. delay 1.500 sec
 Pulse 90.0 degrees
 Acq. time 1.999 sec
 Width 6003.3 Hz
 4 repetitions
 OBSERVE H1, 299.8276374 MHz
 DATA PROCESSING
 Line broadening 0.1 Hz
 FT size 131072

Solvent: CDCl₃
 Starting Time: 16:29:09
 Completion Time: 16:29:38
 Total acq. time 1 minute
 UNITYplus-500 "v1500"
 Ambient temperature
 PULSE SEQUENCE
 Relax. delay 1.500 sec
 Pulse 90.0 degrees
 Acq. time 1.892 sec
 Width 8000.0 Hz
 4 repetitions
 OBSERVE H1, 499.8671219 MHz
 DATA PROCESSING
 Line broadening 0.1 Hz
 FT size 32768

Solvent: CDCl₃
 Starting Time: 10:29:00
 Completion Time: 10:29:58
 Total acq. time 1 minute
 UNITYplus-500 "v1500"
 Ambient temperature
 PULSE SEQUENCE
 Relax. delay 1.500 sec
 Pulse 90.0 degrees
 Acq. time 1.892 sec
 Width 8000.0 Hz
 4 repetitions
 OBSERVE H1, 499.8671219 MHz
 DATA PROCESSING
 Line broadening 0.1 Hz
 FT size 32768

Solvent: CDCl₃
 Starting Time: 16:29:09
 Completion Time: 16:29:38
 Total acq. time 1 minute
 UNITYplus-500 "v1500"
 Ambient temperature
 PULSE SEQUENCE
 Relax. delay 1.500 sec
 Pulse 90.0 degrees
 Acq. time 1.892 sec
 Width 8000.0 Hz
 4 repetitions
 OBSERVE H1, 499.8671219 MHz
 DATA PROCESSING
 Line broadening 0.1 Hz
 FT size 32768

12

Solvent: CDCl₃
 Starting Time: 10:56:07
 Completion Time: 11:00:36
 Total acq. time 4 minutes
 UNITYplus-500 "v1500"
 Ambient temperature
 PULSE SEQUENCE
 Relax. delay 5.000 sec
 Pulse 67.5 degrees
 Acq. time 0.960 sec
 Width 32888.7 Hz
 32 repetitions
 OBSERVE C13, 125.6916844 MHz
 DECOUPLE H1, 499.8698213 MHz
 Power 36 dB
 on during acquisition
 off during delay
 WALTZ-16 modulated
 DATA PROCESSING
 Line broadening 1.0 Hz
 FT size 65536

S5

Solvent: CDCl₃
 Starting Time: 15:11:20
 Completion Time: 15:11:52
 Total acq. time 1 minute
 UNITYplus-300 "vnr300"
 Ambient temperature
 PULSE SEQUENCE
 Relax. delay 1.500 sec
 Pulse 90.0 degrees
 Acq. time 1.999 sec
 Width 6003.3 Hz
 4 repetitions
 OBSERVE H1, 299.8276374 MHz
 DATA PROCESSING
 Line broadening 0.1 Hz
 FT size 131072

S41

S5

Solvent: CDCl₃
 Starting Time: 15:56:26
 Completion Time: 16:01:00
 Total aq. time 4 minutes
 UNITYplus-300 "v1300"
 Ambient temperature
 PULSE SEQUENCE
 Relax. delay 5.000 sec
 Pulse 67.5 degrees
 Acq. time 0.801 sec
 Width 18867.9 Hz
 32 repetitions
 OBSERVE C13, 75.4790436 MHz
 DECOUPLE H1, 300.1763549 MHz
 Power 38 dB
 on during acquisition
 off during delay
 WALTZ-16 modulated
 DATA PROCESSING
 Line broadening 1.5 Hz
 FT size 65536

[illegible]

13

Solvent: CDCl₃
 Starting Time: 15:56:26
 Completion Time: 16:01:00
 Total acq. time 4 minutes
 UNITYplus-300 "v1300"
 Ambient temperature
 PULSE SEQUENCE
 Relax. delay 5.000 sec
 Pulse 67.5 degrees
 Acq. time 0.801 sec
 Width 18867.9 Hz
 32 repetitions
 OBSERVE C13, 75.4790436 MHz
 DECOUPLE H1, 300.1763549 MHz
 Power 38 dB
 on during acquisition
 off during delay
 WALTZ-16 modulated
 DATA PROCESSING
 Line broadening 1.5 Hz
 FT size 65536

Solvent: CDCl3
 Starting Time: 15:11:20
 Completion Time: 15:11:52
 Total acq. time 1 minute
 UNITYplus-300 "vvr300"
 Ambient temperature
 PULSE SEQUENCE
 Relax. delay 1.500 sec
 Pulse 90.0 degrees
 Acq. time 1.999 sec
 Width 6003.3 Hz
 4 repetitions
 OBSERVE H1, 299.8276374 MHz
 DATA PROCESSING
 Line broadening 0.1 Hz
 FV size 131072

Solvent: CDCl₃
 Starting Time: 15:58:28
 Completion Time: 16:01:08
 Total acq. time 4 minutes
 UNITYplus-300 "vi300"
 Ambient temperature
 PULSE SEQUENCE
 Relax. delay 5.000 sec
 Pulse 67.5 degrees
 Acq. time 0.801 sec
 Width 18867.9 Hz
 32 repetitions
 OBSERVE C13, 75.4790436 MHz
 DECOUPLE H1, 300.1763549 MHz
 Power 38 dB
 on during acquisition
 off during delay
 WALTZ-16 modulated
 DATA PROCESSING
 Line broadening 1.5 Hz
 FT size 65536

yang-rxn-236_16Feb2007

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: yang-rxn-236_16Feb2007

Pulse Sequence: s2pul

Solvent: CDCl₃

Temp. 25.0 C / 298.1 K

File: PROTON

INOVA-500 "nmr03"

Relax. delay 1.000 sec

Pulse 45.0 degrees

Acq. time 3.754 sec

Width 6387.7 Hz

16 repetitions

OBSERVE H1, 399.7864614 MHz

DATA PROCESSING

FT size 65536

Total time 1 min, 35 sec

16

yang-rxn-236_16Feb2007

yang-rxn-236_16Feb2007

yang-rxn-236_16Feb2007

yang-rxn-236_16Feb2007

Archive directory: /export/home/jhyang/vnmrsys/data

Archive directory: /export/home/jhyang/vnmrsys/data

Archive directory: /export/home/jhyang/vnmrsys/data

Sample directory: yang-rxn-236_16Feb2007

Sample directory: yang-rxn-236_16Feb2007

Sample directory: yang-rxn-236_16Feb2007

Pulse Sequence: s2pul

Pulse Sequence: s2pul

Pulse Sequence: s2pul

Solvent: CDC13

Solvent: CDC13

Solvent: CDC13

Temp: 25.0 C / 298.1 K

Temp: 25.0 C / 298.1 K

Temp: 25.0 C / 298.1 K

File: CARBON

File: CARBON

File: CARBON

INOVA-500 "nmr03"

INOVA-500 "nmr03"

INOVA-500 "nmr03"

Relax. delay 1.000 sec

Relax. delay 1.000 sec

Relax. delay 1.000 sec

Pulse 45.0 degrees

Pulse 45.0 degrees

Pulse 45.0 degrees

Acq. time 1.197 sec

Acq. time 1.197 sec

Acq. time 1.197 sec

Width 25157.2 Hz

Width 25157.2 Hz

Width 25157.2 Hz

256 repetitions

256 repetitions

256 repetitions

OBSERVE C13, 100.5263611 MHz

OBSERVE C13, 100.5263611 MHz

OBSERVE C13, 100.5263611 MHz

DECOUPLE H1, 399.7884585 MHz

DECOUPLE H1, 399.7884585 MHz

DECOUPLE H1, 399.7884585 MHz

Power 43 dB

Power 43 dB

Power 43 dB

continuously on

continuously on

continuously on

WALTZ-16 modulated

WALTZ-16 modulated

WALTZ-16 modulated

DATA PROCESSING

DATA PROCESSING

DATA PROCESSING

Line broadening 0.8 Hz

Line broadening 0.8 Hz

Line broadening 0.8 Hz

FT size 65536

FT size 65536

FT size 65536

Total time 9 min, 24 sec

Total time 9 min, 24 sec

Total time 9 min, 24 sec

16

yang-II-023-A_25May2007

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: yang-II-023-A_25May2007

Pulse Sequence: s2pu1

Solvent: CDC13

Temp: 25.0 C / 298.1 K

File: PROTON

INOVA-500 "nmr03"

Relax. delay 1.000 sec

Pulse 45.0 degrees

Acq. time 3.754 sec

Width 6387.7 Hz

16 repetitions

OBSERVE H1, 399.7864618 MHz

DATA PROCESSING

FT size 65536

Total time 1 min, 35 sec

Chun-Yang Hong
220 Grand Canyon Dr
Flagstaff, AZ 86001

Chun-Yang Hong
220 Grand Canyon Dr
Flagstaff, AZ 86001

Chun-Yang Hong
220 Grand Canyon Dr
Flagstaff, AZ 86001

Chun-Yang Hong
220 Grand Canyon Dr
Flagstaff, AZ 86001

yang-II-025_26May2007

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: yang-II-025_26May2007

Pulse Sequence: s2pul

Solvent: CDCl₃

Temp. 25.0 C / 298.1 K

File: PROTON

INOVA-500 "nmr03"

Relax. delay 1.000 sec

Pulse 45.0 degrees

Acq. time 3.754 sec

Width 6387.7 Hz

16 repetitions

OBSERVE H1, 399.7864612 MHz

DATA PROCESSING

FT size 65536

Total time 1 min, 35 sec

HC

The Key nOe of C11-23 Fragment 18

yang-II-025_26May2007

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: yang-II-025_26May2007

Pulse Sequence: gCOSY

Solvent: CDCl₃

Temp. 25.0 C / 298.1 K

File: gCOSY

INOVA-500 "nmr03"

Relax. delay 1.000 sec

Acq. time 0.160 sec

Width 6387.7 Hz

2D Width 6387.7 Hz

Single scan

256 increments

OBSERVE H1, 399.7864612 MHz

DATA PROCESSING

Sq. sine bell 0.080 sec

F1 DATA PROCESSING

Sq. sine bell 0.020 sec

FT size 2048 x 2048

Total time 0 min, -1 sec

18: C11-23 fragment

yang-II-104_02Apr2008-23:26:30

Archive directory: /export/home/jhyang/vnmrsys/data

Sample directory: yang-II-104_02Apr2008-23:26:30

Pulse Sequence: NOESY1D

Solvent: CDCl₃

Temp. 25.0 C / 298.1 K

File: NOESY1D_3_31p

INOVA-500 "nmr03"

Relax. delay 1.000 sec

Pulse 90.0 degrees

Mixing 1.000 sec

Acq. time 3.747 sec

Width 8000.0 Hz

256 repetitions

OBSERVE H1, 499.7288190 MHz

DATA PROCESSING

Line broadening 0.3 Hz

FT size 65536

Total time 25 min, 44 sec

key nOe
of 18

yang-II-104_02Apr2008-23:26:30

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: yang-II-104_02Apr2008-23:26:30

Pulse Sequence: NOESY1D

Solvent: CDCl₃

Temp. 25.0 C / 298.1 K

File: NOESY1D_0_84p

INOVA-500 "nmr03"

Relax. delay 1.000 sec

Pulse 90.0 degrees

Mixing 1.000 sec

Acq. time 3.747 sec

Width 8000.0 Hz

256 repetitions

OBSERVE H1, 499.7288190 MHz

DATA PROCESSING

Line broadening 0.3 Hz

FT size 65536

Total time 26 min, 19 sec

key nOe
of 18

yang-II-104_02Apr2008-23:26:30

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: yang-II-104_02Apr2008-23:26:30

Pulse Sequence: NOESY1D

Solvent: CDCl₃

Temp: 25.0 C / 298.1 K

File: NOESY1D_1_99p

INOVA-500 "nmr03"

Relax. delay 1.000 sec

Pulse 90.0 degrees

Mixing 1.000 sec

Acq. time 3.747 sec

Width 8000.0 Hz

256 repetitions

OBSERVE H1, 499.7288190 MHz

DATA PROCESSING

Line broadening 0.3 Hz

FT size 65536

Total time 25 min, 31 sec

yang-II-104_02Apr2008-23:26:30

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: yang-II-104_02Apr2008-23:26:30

Pulse Sequence: NOESY1D

Solvent: CDCl₃
Temp: 25.0 C / 298.1 K
File: NOESY1D_5_61p
INOVA-500 "nmr03"

Relax. delay 1.000 sec
Pulse 90.0 degrees
Mixing 1.000 sec
Acq. time 3.747 sec
Width 8000.0 Hz
256 repetitions
OBSERVE H1, 499.7288190 MHz
DATA PROCESSING
Line broadening 0.3 Hz
FT size 65536
Total time 26 min, 10 sec

key nOe
of 18

9 8 7 6 5 4 3 2 1 0 ppm

S57

yang-II-104_02Apr2008-23:26:30

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: yang-II-104_02Apr2008-23:26:30

Pulse Sequence: NOESY1D

Solvent: CDCl₃

Temp. 25.0 C / 298.1 K

File: NOESY1D_5_48p

INOVA-500 "nmr03"

Relax. delay 1.000 sec

Pulse 90.0 degrees

Mixing 1.000 sec

Acq. time 3.747 sec

Width 8000.0 Hz

256 repetitions

OBSERVE H1, 499.7288190 MHz

DATA PROCESSING

Line broadening 0.3 Hz

FT size 65536

Total time 26 min, 10 sec

key nOe
of 18

9 8 7 6 5 4 3 2 1 0 ppm

S58

yang-II-104_02Apr2008-23:26:30

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: yang-II-104_02Apr2008-23:26:30

Pulse Sequence: NOESY1D

Solvent: CDCl₃

Temp. 25.0 C / 298.1 K

File: NOESY1D_1_52p

INOVA-500 "nmr03"

Relax. delay 1.000 sec
Pulse 90.0 degrees
Mixing 1.000 sec
Acq. time 3.747 sec
Width 8000.0 Hz
256 repetitions
OBSERVE H1, 499.7288190 MHz
DATA PROCESSING
Line broadening 0.3 Hz
FT size 65536
Total time 25 min, 37 sec

key nOe
of 18

yang-II-104_03Apr2008

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: yang-II-104_03Apr2008

Pulse Sequence: NOESY1D

Solvent: CDCl3

Temp: 25.0 C / 298.1 K

File: NOESY1D_2_94p

INOVA-500 "nmr03"

Relax. delay 1.000 sec

Pulse 90.0 degrees

Mixing 0.500 sec

Acq. time 3.747 sec

Width 8000.0 Hz

512 repetitions

OBSERVE H1, 499.7288190 MHz

DATA PROCESSING

Line broadening 0.3 Hz

FT size 65536

Total time 46 min, 28 sec

key nOe
of 18

S60

yang-II-104_02Apr2008-23:26:30

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: yang-II-104_02Apr2008-23:26:30

Pulse Sequence: NOESY1D

Solvent: CDCl₃

Temp: 25.0 C / 298.1 K

File: NOESY1D_3_57p

INOVA-500 "nmr03"

Relax. delay 1.000 sec

Pulse 90.0 degrees

Mixing 1.000 sec

Acq. time 3.747 sec

Width 8000.0 Hz

256 repetitions

OBSERVE H1, 499.7288190 MHz

DATA PROCESSING

Line broadening 0.3 Hz

FT size 65536

Total time 26 min, 6 sec

key nOe
of 18

yang-II-046-C_17Aug2007

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: yang-II-046-C_17Aug2007

Pulse Sequence: s2pu1

Solvent: CDCl₃

Temp. 25.0 C / 298.1 K

File: CARBON

INOVA-500 "nmr03"

Relax. delay 1.000 sec

Pulse 45.0 degrees

Acq. time 1.197 sec

Width 25157.2 Hz

512 repetitions

OBSERVE C13, 100.5263611 MHz

DECOUPLE H1, 399.7884585 MHz

Power 43 dB

continuously on

WALTZ-16 modulated

DATA PROCESSING

Line broadening 0.8 Hz

FT size 65536

Total time 18 min, 49 sec

yang-II-070_29Nov2007

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: yang-II-070_29Nov2007

Pulse Sequence: s2pul

Solvent: CDCl₃
Temp. 25.0 C / 298.1 K
File: PROTON
INOVA-500 "nmr03"

Relax. delay 1.000 sec
Pulse 45.0 degrees
Acq. time 3.754 sec
Width 6387.7 Hz
16 repetitions
OBSERVE H1, 399.7865245 MHz
DATA PROCESSING
FT size 65536
Total time 1 min, 35 sec

S63

yang-II-070_29Nov2007

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: yang-II-070_29Nov2007

Pulse Sequence: s2pu1

Solvent: CDC13

Temp. 25.0 C / 298.1 K

File: CARBON

INOVA-500 "nmr03"

Relax. delay 1.000 sec

Pulse 45.0 degrees

Acq. time 1.197 sec

Width 25157.2 Hz

512 repetitions

OBSERVE C13, 100.5263777 MHz

DECOUPLE H1, 399.7885243 MHz

Power 43 dB

continuously on

WALTZ-16 modulated

DATA PROCESSING

Line broadening 0.8 Hz

FT size 65536

Total time 18 min, 49 sec

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: Spiroketal-Aldehydes_04Sep2007

Relax. delay 1.000 sec
Pulse 45.0 degrees
Acq. time 3.754 sec
Width 6387.7 Hz
16 repetitions
OBSERVE H1, 399.7864618 MHz
DATA PROCESSING
FT size 65536
Total time 1 min, 35 sec

1.75

1.75

S65

4.88-91	76.35	1.88 A.Y.
2.91	5.77	1.88-22.88

Spiroketal-Aldehyde_04Sep2007

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: Spiroketal-Aldehyde_04Sep2007

Pulse Sequence: s2pu1

Solvent: CDCl₃

Temp. 25.0 C / 298.1 K

File: CARBON

INNOVA-500 "nmr03"

Relax. delay 1.000 sec

Pulse 45.0 degrees

Acq. time 1.197 sec

Width 25157.2 Hz

512 repetitions

OBSERVE C13, 100.5263611 MHz

DECOUPLE H1, 399.7884585 MHz

Power 43 dB

continuously on

WALTZ-16 modulated

DATA PROCESSING

Line broadening 0.8 Hz

FT size 65536

Total time 18 min, 49 sec

yang-rxn-064_30Apr2006

Archive directory: /export/home/jhyang/vnmrsys/data

Sample directory: yang-rxn-064_30Apr2006

Pulse Sequence: s2pul

Solvent: CDC13

Temp. 25.0 C / 298.1 K

File: PROTON

INOVA-500 "nmr03"

Relax. delay 1.000 sec

Pulse 45.0 degrees

Acq. time 3.747 sec

Width 8000.0 Hz

16 repetitions

OBSERVE H1, 499.7288019 MHz

DATA PROCESSING

Line broadening 0.5 Hz

FT size 65536

Total time 1 min, 16 sec

yang-rxn-064_30Apr2006

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: yang-rxn-064_30Apr2006

Pulse Sequence: s2pul

Solvent: CDCl₃
Temp. 25.0 C / 298.1 K
User: 1-14-87
File: CARBON
INNOVA-500 "nmr03"

Relax. delay 1.000 sec
Pulse 45.0 degrees
Acq. time 1.299 sec
Width 31446.5 Hz
64 repetitions
OBSERVE C13, 125.6568744 MHz
DECOUPLE H1, 499.7312897 MHz
Power 45 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 0.5 Hz
FT size 131072
Total time 9 min, 55 sec

yang-II-079-C_02Dec2007

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: yang-II-079-C_02Dec2007

Pulse Sequence: s2pul

Solvent: CDCl3
Temp: 25.0 C / 298.1 K
File: PROTON
INOVA-500 "nmr03"

Relax. delay 1.000 sec
Pulse 45.0 degrees
Acq. time 3.747 sec
Width 8000.0 Hz
16 repetitions
OBSERVE H1, 499.7288163 MHz
DATA PROCESSING
Line broadening 0.5 Hz
FT size 65536
Total time 1 min, 16 sec

22

yang-II-079-C_02Dec2007

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: yang-II-079-C_02Dec2007

Pulse Sequence: s2pul

Solvent: CDCl₃
Temp: 25.0 C / 298.1 K
User: 1-14-87
File: CARBON
INNOVA-500 "nmr03"

Relax. delay 1.000 sec
Pulse 45.0 degrees
Acq. time 1.299 sec
Width 31446.5 Hz
512 repetitions
OBSERVE C13, 125.6568744 MHz
DECOUPLE H1, 499.7312897 MHz
Power 47 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 0.5 Hz
FT size 131072
Total time 19 min, 46 sec

yang-II-080-C_03Dec2007

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: yang-II-080-C_03Dec2007

Pulse Sequence: s2pul

Solvent: CDCl₃
Temp. 25.0 C / 298.1 K
File: PROTON
INOVA-500 "nmr03"

Relax. delay 1.000 sec
Pulse 45.0 degrees
Acq. time 3.747 sec
Width 8000.0 Hz
16 repetitions
OBSERVE H1, 499.7288175 MHz
DATA PROCESSING
Line broadening 0.5 Hz
FT size 65536
Total time 1 min, 16 sec

S711¹

1.82032.50 1.41
7.0210 1.11 1.23

yang-II-098-C_18Mar2008

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: yang-II-098-C_18Mar2008

Pulse Sequence: s2pul

Solvent: CDCl₃
Temp. 25.0 C / 298.1 K
User: 1-14-87
File: CARBON
INOVA-500 "nmr03"

Relax. delay 5.000 sec
Pulse 45.0 degrees
Acq. time 1.298 sec
Width 34632.0 Hz
5000 repetitions
OBSERVE C13, 125.6568744 MHz
DECOUPLE H1, 499.7312897 MHz
Power 40 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 0.5 Hz
FT size 131072
Total time 8 hr, 45 min, 45 sec

yang-II-080-B_03Dec2007

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: yang-II-080-B_03Dec2007

Pulse Sequence: s2pul1

Solvent: CDCl3
Temp. 25.0 C / 298.1 K
File: PROTON
INOVA-500 "nmr03"

Relax. delay 1.000 sec
Pulse 45.0 degrees
Acq. time 3.747 sec
Width 8000.0 Hz
16 repetitions
OBSERVE H1, 499.7288173 MHz
DATA PROCESSING
Line broadening 0.5 Hz
FT size 65536
Total time 1 min, 16 sec

yang-II-098-B_20Mar2008

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: yang-II-098-B_20Mar2008

Pulse Sequence: s2pul

Solvent: CDCl₃
Temp. 25.0 C / 298.1 K
File: CARBON
INOVA-500 "nmr03"

Relax. delay 5.000 sec
Pulse 45.0 degrees
Acq. time 1.200 sec
Width 27605.2 Hz
5000 repetitions
OBSERVE C13, 100.5263777 MHz
DECOUPLE H1, 399.7885243 MHz
Power 43 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 0.8 Hz
FT size 131072
Total time 8 hr, 37 min, 23 sec

yang-II-101_29Mar2008

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: yang-II-101_29Mar2008

Pulse Sequence: s2pul

Solvent: CDCl₃
Temp. 25.0 C / 298.1 K
File: PROTON
INOVA-500 "nmr03"

Relax. delay 2.000 sec
Pulse 45.0 degrees
Acq. time 3.747 sec
Width 8000.0 Hz
16 repetitions
OBSERVE H1, 499.7288165 MHz
DATA PROCESSING
Line broadening 0.5 Hz
FT size 65536
Total time 1 min, 32 sec

yang-II-101_29Mar2008

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: yang-II-101_29Mar2008

Pulse Sequence: gCOSY

Solvent: CDCl₃

Temp. 25.0 C / 298.1 K

File: gCOSY

INOVA-500 "nmr03"

Relax. delay 1.000 sec

Acq. time 0.128 sec

Width 8000.0 Hz

2D Width 8000.0 Hz

2 repetitions

256 increments

OBSERVE H1, 499.7288165 MHz

DATA PROCESSING

Sq. sine bell 0.064 sec

F1 DATA PROCESSING

Sq. sine bell 0.016 sec

FT size 2048 x 2048

Total time 0 min, -1 sec

yang-II-101_29Mar2008

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: yang-II-101_29Mar2008

Pulse Sequence: s2pul

Solvent: CDC13
Temp. 25.0 C / 298.1 K
User: 1-14-87
File: CARBON
INOVA-500 "nmr03"

Relax. delay 5.000 sec
Pulse 45.0 degrees
Acq. time 1.299 sec
Width 31446.5 Hz
4864 repetitions
OBSERVE C13, 125.6568744 MHz
DECOUPLE H1, 499.7312897 MHz
Power 48 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 0.5 Hz
FT size 131072
Total time 8 hr, 45 min, 51 sec

13.0
200 180 160 140 120 100 80 60 40 20 0 ppm
S7100

yang-II-092_28Mar2008

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: yang-II-092_28Mar2008

Pulse Sequence: s2pul

Solvent: CDCl₃
Temp. 25.0 C / 298.1 K
File: PROTON
INOVA-500 "nmr03"

Relax. delay 1.000 sec
Pulse 45.0 degrees
Acq. time 3.747 sec
Width 8000.0 Hz
32 repetitions
OBSERVE H1, 499.7288165 MHz
DATA PROCESSING
Line broadening 0.5 Hz
FT size 65536
Total time 2 min, 32 sec

yang-II-092_28Mar2008

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: yang-II-092_28Mar2008

Pulse Sequence: gCOSY

Solvent: CDCl₃
Temp. 25.0 C / 298.1 K
File: gCOSY
INOVA-500 "nmr03"

Relax. delay 1.000 sec
Acq. time 0.128 sec
Width 8000.0 Hz
2D Width 8000.0 Hz
2 repetitions
256 increments
OBSERVE H1, 499.7288165 MHz
DATA PROCESSING
Sq. sine bell 0.064 sec
F1 DATA PROCESSING
Sq. sine bell 0.016 sec
FT size 2048 x 2048
Total time 0 min, -1 sec

S79

F1 (ppm)

F1 (

yang-II-092_28Mar2008

Archive directory: /export/home/jhyang/vnmrsys/data
Sample directory: yang-II-092_28Mar2008

Pulse Sequence: s2pu1

Solvent: CDCl₃
Temp. 25.0 C / 298.1 K
User: 1-14-87
File: CARBON
INOVA-500 "nmr03"

Relax. delay 5.000 sec
Pulse 45.0 degrees
Acq. time 1.298 sec
Width 34632.0 Hz
4480 repetitions
OBSERVE C13, 125.6568744 MHz
DECOUPLE H1, 499.7312897 MHz
Power 48 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 0.5 Hz
FT size 131072
Total time 8 hr, 45 min, 45 sec