SUPPORTING INFORMATION

Supporting Information for

Syntheses and Reactions of Optically Active α -Aminoallenylstannanes

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General Experimental Procedures: THF was distilled from sodium-benzophenone ketyl, and CH_2Cl_2 was distilled from CaH_2 . Commercially available reagents were used as received except as indicated. ^1H NMR (JS-300, 300 MHz; Inova 400, 400 MHz), ^{13}C NMR (JS-300, 75 MHz) and (Inova 400, 100 MHz), and NOE (Inova 400, 100 MHz) spectra were recorded in CDCl_3 unless otherwise noted. Proton chemical shifts are given in ppm relative to CHCl_3 (7.27 ppm) or CD_3OH (4.87 ppm) and carbon shifts are relative to CDCl_3 (77.23 ppm) or CD_3OD (49.15 ppm). ^1H NMR spectra were recorded on the JS-300 spectrophotometer unless otherwise noted. IR spectroscopy was done on a Perkin-Elmer 1600 series FTIR. Column chromatography was performed with ICN 32-66 nm, 60 Å silica gel using flash column techniques unless otherwise noted. Elemental analyses were performed by M-H-W Laboratories, Phoenix, AZ. All reactions were performed under an atmosphere of argon gas unless otherwise noted. Diastereomeric excess was determined by analysis of the crude ^1H NMR spectrum.

Figure S1

¹H NMR 3

Figure S2

Figure S3

¹H NMR 4

Figure S4

Figure S5

Figure S6

Figure S7

Figure S8

Figure S9

Figure S10

Figure S11

Figure S12

Figure S13

Figure S14

Figure S15

Figure S16

pddr-4041 Major, Recryst.
 Solvent: CDCl₃
 Ambient temperature
 File: pddr-4041HX
 INOVA-500 12h
 PULSE SEQUENCE
 Pulse 30.8 degrees
 Acq. time 2.291 sec
 Width 6982.6 Hz
 16 repetitions
 OBSERVE H1, 400.1063232 MHz
 DATA PROCESSING
 Gauss apodization 0.971 sec
 RF size 65536
 Total time 1 minute

Figure S17

CC(C)C(=O)OCC

87

Figure S19

pbdx-4124 post Column
 Solvent: CDCl₃
 Ambient temperature
 File: pbdx-4124PC
 INOVA-500 "1sh"
 PULSE SEQUENCE
 Relax. delay 0.000 sec
 Pulse 28.7 degrees
 Acq. time 2.667 sec
 Width 6000.0 Hz
 16 repetitions
 OBSERVE H1, 300.1592102 MHz
 DATA PROCESSING
 Gauss apodization 0.896 sec
 FT size 32768
 Total time 1 minute

8f

Figure S20

Figure S21

Figure S22

pddr-4146 Post Column
 Solvent: CDCl₃
 Ambient temperature
 File: pddr-4146PC
 INOVA-500 -1sh.
 PULSE SEQUENCE
 Relax. delay 0.000 sec
 Pulse 28.7 degrees
 Acq. time 2.667 sec
 Width 6000.0 Hz
 18 repetitions
 OBSERVE H1, 300.1592102 MHz
 DATA PROCESSING
 Gauss apodilation 0.896 sec
 FT also 32768
 Total time 1 minute

8g

Figure S23

pbdr-4146 Post Column
 Solvent: CDCl₃
 Ambient temperature
 File: pbdr-4146PC
 INOVA-500 "1h"
 PULSE SEQUENCE
 Relax. delay 0.000 sec
 Pulse 28.7 degrees
 Acq. time 2.667 sec
 Width 6000.0 Hz
 18 repetitions
 OBSERVE H1, 300.1592102 MHz
 DATA PROCESSING
 Gauss apodization 0.896 sec
 FT size 32768
 Total time 1 minute

8g

Figure S24

Figure S25

Figure S26

Figure S27

Figure S29

10

Figure S30

Figure S31

Figure S32

Figure S33

Figure S34

Figure S35

Figure S36

Figure S37

Figure S38