Selectivity in Reduction of Natural Furanoheliangolides with Stryker’s Reagent

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\textsuperscript{g}NOESY spectra of compounds 11, 12, 14 and 16 ----------------------S32, S38, S49 and S60

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**General Information**

The NMR spectra were recorded using a Bruker DPX-500 instrument (500 MHz $^1$H NMR and 125 MHz $^{13}$C NMR); CDCl$_3$ and mixtures of CDCl$_3$ and DMSO-d$_6$ were used as solvent with TMS as internal standard. IR spectra were measured with a Perkin-Elmer Spectrum RX IFTIR System. High resolution mass spectra (HRMS) were obtained on an ESI-TOF Mass Spectrometer.
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Frequency (MHz) | 500.13
Nucleus | 1H
Number of Transients | 16
Pulse Sequence | zg30
Solvent | CHLOROFORM-D
Temperature (degree C) | 27.000
Original Points Count | 32768
Points Count | 32768
Sweep Width (Hz) | 4844.96

$\text{H NMR (500 MHz) in CDCl}_3$ of compound 1.
$^{13}$C {1H} (Carbon Totally Decoupled of Hydrogen)

$^{13}$C (DEPT-135) (Distortionless Enhancement by Polarization Transfer)

$^{13}$C NMR (125 MHz) in CDCl$_3$ of compound 1
gCOSY – Compound 1
S8

1H NMR (500 MHz) in CDCl3 of compound 7.
$^{13}$C (DEPT-135) (Distortionless Enhancement by Polarization Transfer)

$^{13}$C NMR (125 MHz) in CDCl$_3$ of compound 7.
$^1$H NMR (500 MHz) in CDCl$_3$ of compound 3.
$^{13}$C (DEPT-135) (Distortionless Enhancement by Polarization Transfer)

$^{13}$C NMR (125 MHz) in CDCl$_3$ of compound 3
gHMBC - Compound 3
$^1$H NMR (500 MHz) in CDCl$_3$ of compound 10.
$^{13}$C (DEPT-135) (Distortionless Enhancement by Polarization Transfer)

$^{13}$C NMR (125 MHz) in CDCl$_3$ of compound 10.
gCOSY – Compound 10
**Acquisition Time (sec)** 4.1288  
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1H NMR (500 MHz) in CDCl₃ of compound 2.
gCOSY – Compound 2
gHMBC – Compound 2
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\[ \text{^1H NMR (500 MHz) in CDCl}_3 \text{ with 10\% DMSO-d}_6 \text{ of compound 11.} \]
$^{13}$C {1H} (Carbon Totally Decoupled of Hydrogen)

$^{13}$C (DEPT-135) (Distortionless Enhancement by Polarization Transfer)

$^{13}$C NMR (125 MHz) in CDCl$_3$ with 10% DMSO-d$_6$ of compound 11.
gHMQC – Compound 11
gNOESY – Compound 11
1H NMR (500 MHz) in CDCl₃ of compound 12.
$^{13}$C NMR (125 MHz) in CDCl$_3$ of compound 12.
gCOSY – Compound 12
gNOESY – Compound 12 in C$_6$D$_6$
1H NMR (500 MHz) in CDCl₃ of compound 13.
$^{13}$C {1H} (Carbon Totally Decoupled of Hydrogen)

$^{13}$C (DEPT-135) (Distortionless Enhancement by Polarization Transfer)

$^{13}$C NMR (125 MHz) in CDCl$_3$ of compound 13.
gHMBC – Compound 13
\textsuperscript{1}H NMR (500 MHz) in CDCl\textsubscript{3} of compound 14.
$^{13}$C \{1H\} (Carbon Totally Decoupled of Hydrogen)

$^{13}$C (DEPT-135) (Distortionless Enhancement by Polarization Transfer)

$^{13}$C NMR (125 MHz) in CDCl$_3$ of compound 14.
gCOSY – Compound 14
gHMQC – Compound 14
gNOESY – Compound 14
$^1$H NMR (500 MHz) in CDCl$_3$ of compound 15.
$^{13}$C NMR (125 MHz) in CDCl$_3$ of compound 15.
gHMOC – Compound 15
**Acquisition Time (sec)** 7.7070  
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**Sweep Width (Hz)** 8503.40  
**Temperature (degree C)** 27.000

**1H NMR (500 MHz) in CDCl$_3$ of compound 16.**
$^{13}$C (DEPT-135) (Distortionless Enhancement by Polarization Transfer)

$^{13}$C NMR (125 MHz) in CDCl$_3$ of compound 16.
gCOSY – Compound 16
gHMBC – Compound 16
gNOESY – Compound 16