Supporting information for

Diastereoselective copper-catalyzed 1,4-addition of Grignard reagents to N-enoyl oxazolidinones

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General Information

All reactions were carried out in inert atmosphere of Ar. Solvents were dried and purified by standard methods before use. Chemical shifts (δ) are given in ppm relative to tetramethylsilane for ¹H NMR and ¹³C NMR. Specific optical rotations are given in deg cm⁻².g⁻¹.dm⁻¹. Flash chromatography was performed on silica gel 40 – 63 μm. Thin-layer chromatography was performed on TLC-plates silica gel 60 with F-254 UV indicator. Diastereomeric ratios were determined by ¹H NMR and GC. Enantiomeric ratios were determined by HPLC on Chiralpak, OD-H, IB, AS-H (column using hexane/iPrOH as a mobile phase and detection with UV-detector at 254 nm, 218 nm.)
$^1$H NMR for 2a

$^{13}$C NMR for 2a
DEPT for 2a

1H NMR for 4a
$^{13}$C NMR for 4a

DEPT for 4a

DEPT, 150.8 MHz
HD243
CDCl3
Nov 6 2012

Sample Name: HD243
Data Collected on:
Archive directory:
Sample directory:
Filedate: data.DEPT.01
Pulse Sequence: DEPT
Shielding: CDCl3
Data collected on: Nov 6 2012

Temp. 29.8 C / 298.1 K
Operator: wensl

Ch3 carbons

CH3 carbons

CH carbons

All carbons

ppm

ppm
\[ ^1H \text{NMR for 4b} \]

\[ ^{13}C \text{NMR for 4b} \]
DEPT for 4b

H NMR for 4c
$^{13}$C NMR for 4c

DEPT for 4c
$^1$H NMR for 4d

$^{13}$C NMR for 4d
DEPT for 4d

**H NMR for 5b**
$^{13}$C NMR for 5b

DEPT for 5b
$^{1}H$ NMR for 6a

$^{13}C$ NMR for 6a
DEPT for 6a

DEPT, 75.4 MHz
DE-356B-13C
GDC13
Jul 2 2012

Sample Name: DE-356B-13C
Data Collected on: 201207030530
Archive directory
/home/wheeler/wmurdy/data
Sample directory:
DE-356B-13C_20120703_0530
File: DEPT_001

Pulse Sequence: DEPT
Solvent: GDC13
Data collected on: Jul 2 2012

Temp. 25.6 °C / 294.1 K
Operator: chendrek

Relax. delay 1.000 sec
Pulse 90.0 degrees
Acq. time 1.000 sec
WALTZ 1024 repetitions

DECOUPLING C13, 75.4 MHz
DECOUPLING B1, 300.066104 MHz

Power 37 GB
during acquisition
off during delay
MEASURE: 16 modulated

Data Processing
Line broadening 0.7 Hz
FT size 65536
Total time 2 hr 53 min

All protonated carbon

H NMR for 6b

ppm (1H)
$^{13}$C NMR for 6b

DEPT for 6b
$^1$H NMR for 6c

$^{13}$C NMR for 6c
DEPT for 6c

1H NMR for 7a
$^1$H NMR for 7b

$^{13}$C NMR for 7b
DEPT for 7b

Sample Name: HDC14
Instrument: NMR

Data Collected on:
Varian: NMR-250 MHz
Archive Directory:
/home/triton/uvrgewo/data
Sample Directory:
HDC14_20120207_01
Pulse Sequence: DEPT
Solvent: CDCl3
Data collected on: Aug 27 2012

Reso. 29.6 C / 296.1 M
Oper. 1 sec
Pulse, delay 1.000 sec
Pulse 90.0 Degrees
Avg. 10,000 1.000 sec
Field 300.17 MHz
NMR Instruments

OBSERVED C13, 150.91460 MHz
DECOUPLING: 150.91460 MHz
Power 40 dB
on Service acquisition
off during delay
NMR-250

Data Processing

Line Broadening 0.5 Hz
FT size 131072
Total time 2 hr, 35 min

1H NMR for 7c
$^{13}$C NMR for 7c

DEPT for 7c
$^1$H NMR for 7d

$^{13}$C NMR for 7d
DEPT for 7d