

## GENERAL REMARKS

- $^1\text{H}$  NMR and  $^{13}\text{C}$  NMR spectra were recorded on Varian Gemini 200 or Varian Unity 400 making a solution of samples in  $\text{CCl}_4/\text{CDCl}_3$  (1:1) solvent using tetramethylsilane (TMS) as the internal standard unless otherwise mentioned, and are given in the  $\delta$  scale. The standard abbreviations s, d, t, q, m, dd, dt, ABq, br s refer to singlet, doublet, triplet, quartet, multiplet, doublet of a doublet, doublet of a triplet, AB quartet and broad singlet respectively.
- Mass spectra were recorded on either Finnigan MAT 1020B or Micro Mass VG 70-70H spectrometer operating at 70eV using direct inlet system.
- Melting points were recorded on either Buchi R-535 apparatus or a Kofler hot plate and are uncorrected.
- Infrared spectra were recorded on Perkin-Elmer Infrared-683 spectrophotometer with NaCl optics. Spectra were calibrated against the polystyrene absorption at  $1610\text{ cm}^{-1}$ . Samples were scanned neat, KBr wafers or in chloroform as a thin film.
- The optical rotations were measured on JASCO DIP-360 digital polarimeter.
- Analytical thin layer chromatography (TLC) was performed on precoated silica gel-60 F<sub>254</sub> (0.5 mm) glass plates. Visualization of the spots on TLC plates was achieved either by exposure to iodine vapor or UV light or by dipping the plates to sulphuric acid- $\alpha$ -naphthol or to ethanolic anisaldehyde-sulphuric acid-acetic acid or to phosphomolybdic acid-sulphuric acid solution and heating the plates at  $120^\circ\text{C}$ . Column chromatography was performed using silica gel (60-120 mesh) and the column was usually eluted with ethyl acetate-petroleum ether.
- Moisture sensitive reactions were carried out by using standard syringe-septum techniques.
- All solvents and reagents were purified by standard techniques. All evaporation of solvents was carried out under reduced pressure on Buchi-RE-121 rotary evaporator below  $45^\circ\text{C}$ .
- Yield reported are isolated yields of material judged homogeneous by TLC and NMR spectroscopy.
- The names of all compounds given in the experimental section were taken from ACD/Name, Version 1.0.

## ABBREVIATIONS

Ac	:	acetyl
Ac <sub>2</sub> O	:	acetic anhydride
AcOH	:	acetic acid
aq	:	aqueous
atm	:	atmosphere
BAIB	:	bis(acetoxy)iodobenzene
Bn	:	benzyl
<i>n</i> -BuLi	:	<i>n</i> -butyl lithium
<sup>t</sup> Bu	:	<i>tert</i> -butyl
c	:	concentration
cm	:	centimetre
DCM (CH <sub>2</sub> Cl <sub>2</sub> ):	:	dichloromethane
DIAD	:	Diisopropyl azodicarboxylate
DET	:	Diethyltartarate
DMAP	:	4-(dimethylamino) pyridine
DMF	:	<i>N,N</i> -dimethylformamide
DMP	:	2,2-dimethoxypropane
DMP	:	Dess-Martin Periodinane
DMSO	:	dimethyl sulphoxide
Et	:	ethyl
Fig	:	figure
G-I	:	Grubb's 1 <sup>st</sup> generation catalyst
G-II	:	Grubb's 2 <sup>nd</sup> generation catalyst
g	:	gram
h	:	hour (s)
IBX	:	Iodoxy benzoic acid
IR	:	infrared
J	:	coupling constant
<sup>i</sup> Pr <sub>2</sub> EtN	:	Diisopropyl ethyl amine (Hunig's base)
LiAlH <sub>4</sub>	:	lithium aluminium hydride
Li	:	lithium
LiNH <sub>2</sub>	:	lithium amide

Liq	:	liquid
mL	:	millilitre
mp	:	melting point
MOM	:	methoxymethyl
MOMCl	:	methoxymethylchloride
TsCl	:	para toluenesulphonylchloride
NMR	:	nuclear magnetic resonance
nOe	:	nuclear Overhauser enhancement
PMB	:	<i>p</i> -methoxybenzyl
PMR/ <sup>1</sup> HNMR	:	proton magnetic resonance
PPTS	:	pyridiniumparatolunesulphonate
<sup>i</sup> Pr	:	<i>iso</i> -propyl
<i>p</i> -TsOH	:	<i>para</i> -toluenesulphonic acid
rt	:	room temperature
TBAF	:	tetrabutylammonium fluoride
TBDMS	:	<i>tert</i> -butyldimethylsilyl
TEA	:	triethylamine
THF	:	tetrahydrofuran
THP	:	tetrahydropyran
TPP	:	triphenylphosphine
Ts	:	tosyl ( <i>para</i> -toluenesulphonyl)
Zn	:	zinc
[α]	:	optical rotation