List of Abbreviations/Acronym/Symbols

The following abbreviations have been used within this dissertation:

Å	Ångström
Ac	acetyl
AD-mix-α	asymmetric dihydroxylation α -mix
AD-mix-β	asymmetric dihydroxylation β -mix
aq	aqueous
Ar	aryl
anh.	anhydrous
Bn	benzyl
9-BBN	9-borabicyclo[3.3.1]nonane
Boc	*tert*-butyloxycarbonyl
br	broad
Bu	butyl
°C	degree Celsius
Calcd	calculated
Cbz	benzyloxycarbonyl
CSA	camphorsulfonic acid
δ	chemical shift (NMR)
d	doublet
Δ	reflux/heat
DBU	1,8-diazabicyclo[5.4.0]undec-7-ene
DCM	dichloromethane
DCE	1,2-dichloroethane
dd	doublet of doublets
ddd	doublet of doublets of doublets
DEAD	diethyl azodicarboxylate
DET	diethyl tartarate
DIBAL-H	diisobutylaluminium hydride
DMA	dimethylacetamide
DME	dimethoxyethane
DMF	dimethylformamide

DMSO	dimethyl sulfoxide
dt	doublet of triplets
ee	enantiomeric excess
eq	equivalent(s)
ESI	electrospray ionisation
Et	ethyl
EtOAc	ethyl acetate
g	gram
h	hour(s)
HFIP	1,1,1,3,3,3-hexafluoroisopropanol
HPLC	high performance liquid chromatography
HWE	Horner-Wadsworth-Emmons
Hz	Hertz
J	coupling constant value in Hz (NMR)
m	multiplet
M	Molar (concentration)
M^+	molecular ion peak
Me	methyl
min	minute(s)
mL	mililitre
mp	melting point
MS	molecular sieves
m/z	atomic mass units per charge
n	normal
NMO	*N*-methylmorpholine *N*-oxide
NMR	nuclear magnetic resonance
NsCl	4-nosyl chloride, 4-nitrobenzenesulfonyl chloride
o	ortho
p	para
PCC	Pyridinium chlorchromate
PIDA	Phenyliodine (III) diacetate
PIFA	[*bis*(trifluoroacetoxy)iodo]-benzene

pKa	acid dissociation constant
ppm	parts per million
PPTS	Pyridinium *para*-toluenesulfonate
q	quartet
rac	racemic
R_f	retardation factor
rt	room temperature
s	singlet
sat.	saturated
t	triplet
TBAF	tetra-*n*-butylammonium fluoride
TBS	*tert*-Butyldimethylsilyl
TBDPS	*tert*-Butyldiphenylsilyl
td	triplet of doublets
temp.	temperature
tert	tertiary
Tf	triflate, trifluoromethanesulfonyl
TFA	trifluoroacetic acid
TFE	2,2,2-Trifluoroethanol
THF	tetrahydrofuran
TLC	thin layer chromatography
TMS	trimethylsilyl
TsCl	*para*-toluenesulfonyl
TsCl	*para*-toluenesulfonyl chloride
p-TsOH	*para*-toluenesulfonic acid