

List of Abbreviations and Symbols

DCE	1,2-Dichloroethane
DME	1,2-Dimethoxy ethane
dppp	1,3-Bis(diphenylphosphino)propane
DABCO	1,4-diazabicyclo[2.2.2]octane
DBU	1,8-Diazabicyclo undec-7-ene
TEMPO	2,2,6,6-Tetramethyl-1-piperidinyloxy
DMAP	4-Dimethylamino pyridine
AcOH	Acetic acid
ACN	Acetonitrile
α	Alpha
Cbz	Benzyloxy carbonyl
β	Beta
BINAP	Binaphthyl
BAIB	Bis(acetoxy)iodobenzene
Boc	Butyloxy carbonyl
CTAB	Cethyltrimethylammonium bromide
PhCl	Chlorobenzene
Ph ₂ PCl	Chlorodiphenyl phosphine
CHCl ₃	Chloroform
CMC	Critical micelle concentration
COD	Cyclooctadiene
°C	Degree celsius
DBFOX	Dibenzofused oxazoline
dba	Dibenzylidene acetone
DCM	Dichloromethane
DAST	Diethylaminosulfur trifluoride
DMSO	Dimethylsulfoxide
Ph ₂ PH	Diphenylphosphine
DPOF	Diphenylphosphino oxazolinyl ferrocene
DPPA	Diphenylphosphoryl azide
EI-Mass	Electron impact mass spectrometry
EWG	Electron withdrawing group
<i>ee</i>	enantiomeric excess
EtOH	Ethyl alcohol

FTIR	Fourier transform infrared spectroscopy
g	Grams
HWE	Horner-Wadsworth-Emmons
HOBt	Hydroxybenzotriazole
Ir	Iridium
ⁱ PrOH	<i>iso</i> -Propanol
ⁱ Pr	<i>iso</i> -Propyl
LED	Light emitting diodes
LDA	Lithium diisopropylamide
Mg	Magnesium
MHz	Mega hertz
M.P.	Melting point
MsCl	Methanesulfonyl chloride
mL	Milliliters
mmol	Millimoles
min	Minute
DCC	<i>N,N</i> -Dicyclohexylcarbodiimide
DIPEA	<i>N,N</i> -diisopropylethyl amine
DMA	<i>N,N</i> -Dimethylacetamide
DMF	<i>N,N</i> -Dimethylformamide
NBS	<i>N</i> -Bromosuccinimide
BuLi	<i>n</i> -Butyl lithium
NMP	<i>N</i> -Methylpyrrolidinone
NMR	Nuclear magnetic resonance
Nu	Nucleophile
BSA	<i>O,N</i> -Bis(trimethylsilyl)acetamide
Pd(OAc) ₂	Palladium (II) acetate
ppm	Parts per million
PTC	Phase transfer catalyst
PHOX	Phosphinooxazoline
PPV	Poly(phenylenevinylene)
PEG	Polyethylene glycol
KOAc	Potassium acetate
^t BuOK	Potassium <i>tert</i> butoxide
rt	Room temperature
NaH	Sodium hydride

NaOMe	Sodium methoxide
NaSPh	Sodium thiophenolate
^t Bu	<i>tert</i> -Butyl
TBHP	<i>tert</i> -Butyl hydroperoxide
TBAB	Tetrabutylammonium bromide
TBAF	Tetrabutylammonium fluoride
TBATFA	Tetrabutylammonium trifluoroacetate
TBAT	Tetrabutylammonium trifluoromethane sulfonate
THF	Tetrahydrofuran
TFPB	Tetrakis[2,6-bis(trifluoromethyl)phenyl] borate
TMEDA	Tetramethylethylene diamine
TPAP	Tetra- <i>n</i> -propylammonium perruthenate
TLC	Thin layer chromatography
TsCl	Tosyl chloride
TEA	Triethylamine
tfc	Trifluoromethylhydroxymethylene)-(+) -camphorate
Tf	Trimethyl sulfonate
TMSCl	Trimethylsilyl chloride
TMSCHN ₂	Trimethylsilyl diazomethane
Ph ₃ P	Triphenylphosphine
TON	Turn over number
UV	Ultraviolet-visible
ZnCl ₂	Zinc chloride