

LIST OF ABBREVIATIONS

Acetone-d ₆	=	Deuterated acetone
AlCl ₃	=	Aluminum chloride
BBr ₃	=	Boron tribromide
BH ₃ .THF	=	Borane tetrahydrofuran complex
BnCl	=	Benzyl chloride
br s	=	Broad singlet
Calcd.	=	calculated
CDCl ₃	=	Deuterated chloroform
CDI	=	1,1'-Carbodiimidazole
CH ₂ Cl ₂	=	Dichloromethane
cm ⁻¹	=	Reciprocal centimeter
CuBr	=	Copper (I) bromide
¹³ C-NMR	=	Carbon nuclear magnetic resonance
d	=	Doublet
DCC	=	1,3-Dicyclohexylcarbodiimide
dd	=	Doublet of doublet
ddd	=	Doublet of doublet of doublet
DDQ	=	2,3-Dichloro-5,6-dicyanobenzoquinone
DIBAL-H	=	Diisobutyl aluminium hydride
DMAP	=	4-Dimethylaminopyridine
DMF	=	N,N-Dimethylformamide
DMSO	=	Dimethylsulfoxide
dt	=	Doublet of triplet
EI-MS	=	Electron impact mass spectroscopy
EtOAc	=	Ethyl acetate
EtOH	=	ethanol
Et ₂ O	=	Diethyl ether
Et ₃ N	=	triethylamine
FTIR	=	Fourier transform infrared spectroscopy

LIST OF ABBREVIATIONS (cont'd)

g	=	gram
h	=	hour
HeLa	=	Human cervical carcinoma
HMPA	=	Hexamethylphosphoramide
HRMS	=	High resolution mass spectroscopy
Hz	=	Hertz
H ₂ O	=	water
H ₂ O ₂	=	hydrogenperoxide
¹ H-NMR	=	Proton nuclear magnetic resonance
IC ₅₀	=	50% Inhibition concentration
<i>J</i>	=	Coupling constant
KB	=	Oral human epidermoid carcinoma
KBr	=	Potassium bromide
KI	=	Potassium iodide
KOH	=	Potassium hydroxide
K ₂ CO ₃	=	Potassium carbonate
LDA	=	Lithium diisopropylamide
LiAlH ₄	=	Lithium aluminum chloride
m	=	Multiplet
M	=	Molarity concentration
MCF-7	=	Human breast cancer
MeI	=	Methyl iodide
MeOH	=	methanol
mg	=	milligram
MgSO ₄	=	Magnesium sulfate
MHz	=	Megahertz
min	=	minutes
mL	=	milliliter
mmol	=	millimole

LIST OF ABBREVIATIONS (cont'd)

mol	=	mole
m.p.	=	Melting point
MTT	=	Microculture tetrazolium assay
M ⁺	=	Molecular ion
<i>m/z</i>	=	A value of mass divided by charge
NaH	=	Sodium hydride
NaOAc	=	Sodium acetate
NaOH	=	Sodium hydroxide
NOE	=	Nuclear Overhauser Effect
PBr ₃	=	Phosphorus tribromide
Pd-C	=	Palladium on charcoal
Pd(OAc) ₂	=	Palladium (II) acetate
ppm	=	part per million
Pr ⁱ ₂ NH	=	diisopropylamine
q	=	Quartet
qd	=	Quartet of doublet
quint	=	Quintet
rt	=	Room temperature
s	=	singlet
SD	=	Standard deviation
sext	=	Sextet
td	=	Triplet of doublet
THF	=	Tetrahydrofuran
TLC	=	Thin Layer Chromatography
TMS	=	Tetramethylsilane
TMSCl	=	Trimethylsilylchloride
<i>p</i> -TsOH.H ₂ O	=	<i>para</i> -Toluene sulfonic acid monohydrate
δ	=	Chemical shift
α	=	alpha

LIST OF ABBREVIATIONS (cont'd)

ν_{\max}	=	Maximum absorption frequency
μL	=	microliter
$^{\circ}\text{C}$	=	Degree celcius