

## ABBREVIATIONS/SYMBOLS USED

$^{13}\text{C}$	Carbon-13 isotope
Cat.	Catalyst
$\text{CDCl}_3$	Deuterated chloroform (used as NMR solvent)
CHN	Carbon Hydrogen Nitrogen
COSY	Correlation Spectroscopy
NOESY	Nuclear Overhauser Effect Spectroscopy
DEPT	Distortionless Enhancement Polarization Transfer
HETCOR	Heteronuclear Correlation
DCM	Dichloromethane
FT-IR	Fourier Transform-Infrared
gm	Gram
h	Hour
min	Minute
Hz	Hertz
i.e.	That is
<i>J</i>	Coupling constant (in NMR)
s	Singlet (NMR)
d	Doublet (NMR)
t	Triplet (NMR)
m	Multiplet (NMR)
<i>o</i>	Ortho
<i>m</i>	Meta
<i>p</i>	Para
Me	Methyl
MeOH	Methanol
EtOH	Ethanol
mg	Milligram
mL	Milli Litre
mmol	Milli Mole
mol	Mole
M.P.	Melting Point

MWI	Microwave Irradiation
NMR	Nuclear Magnetic Resonance
No.	Number
ppm	Parts per million (in NMR)
rt	Room Temperature
PTSA	Para Toluene Sulfonic acid
TLC	Thin Layer Chromatography
UV	Ultra Violet
W	Watt
°C	Degree Celsius
%	Percentage
<, >	Greater or smaller than
$\delta$	chemical shift (in NMR)
[MSIM]	Methyl-sulfonic Imidazolium
[DSIM]	Di-sulfonic Imidazolium
[DSDIPA]	Di-sulfo-di-isopropylamine
DIL	Dicationic Ionic Liquid
TIL	Tricationic Ionic Liquid
Fig.	Figure
$\lambda$	Wavelength
IL	Ionic Liquid
SEM	Scanning Electron Microscope
TEM	Transmission Electron Microscopy
AAS	Atomic Absorption Spectroscopy
ICP-OES	Inductively Coupled Plasma Optical Emission Spectroscopy
PXRD	Powder X-Ray Diffraction
HPLC	High Performance Liquid Chromatography
TGA	Thermo Gravimetric Analysis
DTA	Differential Thermal Analysis
$\text{Et}_2\text{O}$	Diethyl ether
THF	Tetra Hydro Furan
EtOAc	Ethyl acetate