
List of Abbreviations

AIBN	Azobisisobutyronitrile
ARGET	Activators Regenerated by Electron Transfer
ARGET-ATRP	Activators Regenerated by Electron Transfer Atom Transfer Radical Polymerization
ATRP	Atom Transfer Radical Polymerization
BCPs	Block Copolymers
BIBB	2-Bromoisobutyryl Bromide
CNTs	Carbon Nanotubes
CuBr	Copper(I)Bromide
DLS	Dynamic Light Scattering
DMDBHD	Dimethy-2,6-Dibromoheptanedioate
DSC	Differential Scanning Calorimetry
EDX	Energy-Dispersive X-Ray Spectroscopy
FRP	Free Radical Polymerization
FT-IR	Fourier Transform Infrared Spectroscopy
GMA	Glycidyl Methacrylate
GPC	Gel Permeation Chromatography
HDPE	High Density Polyethylene
HPLC	High-Performance Liquid Chromatography
k_a	Rate of Deactivation
k_{act}	Activation Rate Constant
k_{ATRP}	Overall ATRP Equilibrium
k_d	Rate of Activation
k_{deact}	Deactivation Rate Constant
k_i	Rate of Initiation
k_p	Rate of Propagation
k_t	Rate of Termination
M:I	Monomer:Initiator
MEHQ	4-Methoxyphenol
MMA	Methyl Methacrylate
M_n	Number Average Molecular Weight
M_o	Initial Mass

M _{org}	Final Mass Difference
M _v	Viscosity Average Molecular Weight
MW	Molecular Weight
M _w	Weight Average Molecular Weight
MWD	Molecular Weight Distribution
M _z	Size Average Molecular Weight
NaOH	Sodium Hydroxide
NMP	Nitroxide Mediated Polymerization
NMR	Nuclear Magnetic Resonance
PDI	Poly Dispersity Index
PDMA-MI	Poly(dimethylsiloxane)-Macroinitiator
PDMS	Poly(dimethylsiloxane)
PMDETA	Pentamethylethylenetriamine
PMMA	Poly(Methyl Methacrylate)
PP	Polypropylene
PPM	Parts Per Million
PRE	Persistent Radical Effect
PS	Polystyrene
PtBA	Poly(t-butyl acrylate)
RAFT	Reversible Addition Fragmentation Chain Transfer
RDRP	Reversible Deactivation Radical Polymerization
RPM	Revolution per minute
RX	Alkyl Halides
SBR	Styrene-Butadiene
SEC	Size Exclusion Chromatography
SEM	Scanning Electron Microscopy
SFRP	Stable Free Radical Polymerization
SI-ATRP	Surface Initiated Atom Transfer Radical Polymerization
tBA	t-butyl acrylate
TEM	Transmission Electron Microscope
TEMPO	2,2,6,6-tetramethyl-1-piperidynyl-N-oxy
TERP	Organotellurium-mediated Living Radical Polymerization
T _g	Glass Transition

TGA	Thermo Gravimetric Analysis
THF	Tetrahydrofuran
UV-VIS	Ultraviolet-Visible Spectroscopy
VC	Vinyl Chloride
β -CD	β -Cyclodextrin
