LIST OF SYMBOLS AND ABBREVIATIONS

The symbols and abbreviations used in the thesis are listed below:

Symbols

α	Alpha
Å	Armstrong
β	Beta
°	Degree
λ	Lambda
υ	Nu
%	Percentage
θ	Theta

Abbreviations

AAS	Atomic absorption spectroscopy
AB92	Acid blue 92
AR	Acid red GR
AC	Activated carbon
AOP	Advance oxidation process
aq.	Aqueous
BB	Basic blue
BET	Brunauer-Emmett-Teller
BCG	Bromocresol green
BJH	Barrett-Joyner-Halenda
BPB	Bromophenol blue
BTB	Bromothymol blue
cm	Centimetre
cm^{-1}	Per centimeter
cm^3/g	Centimetre cube per gram
2CP	2-Chlorophenol

3CP	3-Chlorophenol
4CP	4-Chlorophenol
ca.	Circa (approximately)
Conc.	Concentration
CR	Congo red
°C	Degree celcius
°C min^{-1}	Degree celcius per minute
^{13}C	Carbon-13-isotope
CNT	Carbon nanotube
COD	Chemical oxygen demand
Deg.	Degradation
DB	Direct blue G-RB
DR	Disperse red 3B
DRUV-vis	Diffused reflectance ultraviolet-visible
D–R	Dubinin–Radushkevich
EDX	Energy dispersive X-ray spectroscopy
eV	Electron volt
eqn.	Equation
EBT	Erichrome black T
FLU	Fluorescein
FWHM	Full width at half-maximum
g	Gram
g/L	Gram per litre
g/mg.min	Gram per milligram per minute
GO	Graphene oxide
h	Hour
h^{-1}	Per hour
HT	Hydrotalcite
IR	Infrared
Int.	Intermediate
IRC	Intrinsic reaction coordinate

JCPDS	Joint committee on powder diffraction standards
J/mol·K	Joule per mole per kelvin
k_{app}	$k_{apparent}$
K	Kelvin
kcal/mol	Kilocalorie per mole
kJ/mol	Kilojoule per mole
kJ/mol·K	Kilojoule per mole per kelvin
kV	Kilovolt
LDH	Layered double hydroxides
LMCT	Ligand–to–metal charge transfer
L	Litre
L/mg	Litre per milligram
λ_{max}	$\lambda_{maximum}$
MHz	Mega hertz
MG	Malachite green
MMCT	Metal–to–metal charge transfer
m	Metre
m^2/g	Metre square per gram
MB	Methylene blue
MO	Methyl orange
MR	Methyl red
MV	Methyl violet
MW	Microwave
MMO	Mixed metal oxide
mA	Milliampere
mg	Milligram
mg/g	Milligram per gram
$mg/g \cdot min^{1/2}$	Milligram per gram per minute to the power half
mg/L	Milligram per litre
mL	Millilitre
mM	Millimolar

mmol	Millimole
min	Minute
min^{-1}	Per minute
M	Molar
mol/kg	Mole per kilogram
mol/L	Mole per litre
mol%	Mole percentage
mol^2/kJ^2	Mole square per kilojoule square
nm	Nanometre
e^-	Negative electron
NC	New coccine
No.	Number
NMR	Nuclear magnetic resonance
OII	Orange (II)
p-cresol	Para-cresol
ppm	Parts-per million
*p*TSA	Para toluene sulfonic acid
PSD	Pore size distribution
PES	Potential energy surface
h^+	Positive hole
PXRD	Powder X-ray diffraction
q_e	$q_{euilibrium}$
q_{max}	$q_{maximum}$
RY	Reactive yellow 4GL
RGO	Reduced graphene oxide
Ref.	Reference
RBV-5r	Remazol Brilliant Violet
RhB	Rhodamine B
R6G	Rhodamine 6G
RT	Room temperature
SEM	Scanning electron microscope

s	Second
SAED	Selected area electron diffraction
T	Temperature
TGA	Thermogravimetric analysis
t	Time
TEM	Transmission electron microscope
Temp.	Temperature
TS	Transition state
TOF	Turnover frequency
TON	Turnover number
UV	Ultra violet
UV-Vis	Ultra violet visible
V	Volume
W	Watt
XRD	X-ray diffraction