

LIST OF ABBREVIATIONS

α	Absorption coefficient
σ	Conductivity
E_g	Band gap energy
ν	Frequency
λ	Wavelength of light
Al_2O_3	Alluminium Oxide
BMP	Bound Magnetic Polaron
BSE	Back-Scattered Electron
CdS	Cadmium Sulphide
CdTe	Cadmium Telluride
CIS	Complex Impedance Spectroscopy
CeO_2	Cerium Oxide
Co_3O_4	Cobalt Oxide
CVD	Chemical Vapor Deposition
DCB	Dichlorobenzene
DMS	Diluted Magnetic Semiconductor
EDX	Energy Dispersive X-ray
FL	Fluorescence
FWHM	Full Width at Half Maximum
FTIR	Fourier Transform Infra-Red
FU	Formula Unit
GaN	Gallium Nitrate
HRTEM	High Resolution TEM
InAs	Indium Arsenide
IR	Infrared
LD	Laser Diode
LED	Light Emitting Diode

LO	Longitudinal Optical Phonon
MB	Methylene Blue
MBE	Molecular Beam Epitaxy
ME	Magnetoelectric
MgO	Magnesium Oxide
M-H	Magnetization vs. Magnetic Field
MO	Methyl Orange
MOS	Metal Oxide Semiconductor
MOVPE	Metal-Organic Vapor Phase Epitaxy
M_r	Remnant Magnetization
Nd_2O_3	Neodymium Oxide
NiO	Nickel Oxide
O_i	Interstitial Oxygen
P-E	Polarization vs. Electric Field
PL	Photoluminescence
PLD	Pulsed Laser Deposition
PVD	Physical Vapor Deposition
RC	Resistance-Capacitor
RE	Rare Earth
RGO	Reduced Graphene Oxide
RKKY	Ruderman-Kittel-Kasuya-Yosida
RTFM	Room Temperature Ferromagnetism
SAED	Selected Area Electron Diffraction
SE	Secondary Electron
SnO_2	Tin Oxide
SPM	Surface Phonon Mode
SQUID	Superconducting Quantum Interference Device
TEM	Transmission Electron Microscopy
TiO_2	Titanium Oxide

TM	Transition Metals
TMR	Tunnel Magnetoresistance
TO	Transverse Optical Phonon
UV	Ultra Violet
UV-VIS	Ultra Violet-Visible
V _o	Oxygen Vacancy
V _{Zn}	Zinc Vacancies
WO ₃	Tungsten Oxide
XRD	X-ray Diffraction
XPS	X-ray Photo Electron Spectroscopy
Zn _i	Interstitial Zinc
Zn _o	Substitution Zn at O position
ZnO	Zinc Oxide
ZnS	Zinc Sulphide
ZnSe	Zinc Selenide
ZnTe	Zinc Telluride