

LIST OF SYMBOLS AND ABBREVIATIONS

| | | |
|--------------------|---|--|
| $^{\circ}\text{C}$ | - | Degree Celsius |
| eV | - | Electron volt |
| \AA | - | Angstrom |
| 2θ | - | Angle of incidence of X-ray diffracting planes |
| ϵ' | - | Dielectric constant |
| ϵ'' | - | Dielectric loss |
| Δ | - | Dissipation factor |
| F | - | Frequency |
| Λ | - | Wavelength |
| g | - | Gram |
| G | - | Gauss |
| W | - | Watt |
| μg | - | Microgram |
| mL | - | Millilitre |
| % | - | Percentage |
| mm | - | Millimeter |
| cm | - | Centimeter |
| cm^{-1} | - | Centimeter inverse |
| nm | - | Nanometer |
| μm | - | Micrometer |
| Oe | - | Oersted |
| emu | - | Electromagnetic unit |
| E_g | - | Band gap energy |
| T_c | - | Curie temperature |
| H_c | - | Coercivity |
| M_s | - | Magnetization |
| M_r | - | Retentivity |

| | | |
|---------|---|---|
| BMP | - | Bound Magnetic Polaron |
| DMS | - | Diluted magnetic semiconductor |
| RTFM | - | Room Temperature Ferro Magnetism |
| TM | - | Transition metal |
| XRD | - | X-Ray Diffraction |
| TEM | - | Transmission Electron Microscope |
| SAED | - | Selected Area Electron Diffraction |
| SEM | - | Scanning Electron Microscope |
| EDAX | - | Energy Dispersive X-ray Analysis |
| FTIR | - | Fourier Transform Infrared |
| UV-Vis | - | Ultraviolet-Visible |
| PL | - | Photoluminescence |
| VSM | - | Vibrating Sample Magnetometer |
| MBE | - | Molecular beam epitaxy |
| NPs | - | Nanoparticles |
| ROS | - | Reactive oxygen species |
| $K_B T$ | - | Thermal energy |
| hkl | - | Diffraction reflection indices |
| FWHM | - | Full width half maximum |
| JCPDS | - | Joint committee on powder diffraction standards |
| ICDD | - | International Centre for Diffraction Data |
| 0-D | - | Zero dimension |
| 1-D | - | One dimension |
| 2-D | - | Two dimension |
| 3-D | - | Three dimension |
| Ni | - | Nickel |
| Mn | - | Manganese |

| | | |
|----------------------|---|-------------------------------|
| Co | - | Cobalt |
| Cu | - | Copper |
| KBr | - | Potassium bromide |
| <i>E. coli</i> | - | <i>Escherichia coli</i> |
| <i>P. aeruginosa</i> | - | <i>Pseudomonas aeruginosa</i> |
| <i>B. subtilis</i> | - | <i>Baccillus subtilis</i> |
| ZOI | - | Zone of Inhibition |