

## *Abbreviations*

FC	Field cooling
H	Magnetic field
J-T	Jahn-Teller
K	Kelvin
K.E	Kinetic energy
kV	Kilo volt
keV	Kilo electron volt
M	Magnetization
MeV	Mega electron volt
MPMS	Magnetic property measurement systems
MT	Magnetisation versus temperature
MH	Magnetisation versus field
MHz	Mega Hertz
$M_s$	Saturation magnetization
RT	Room temperature
SAED	Selected area electron diffraction
SEM	Scanning electron microscopy
FESEM	Field Emission scanning electron microscopy
T	Temperature
XRD	X-ray diffraction
XPS	X-ray photo electron spectroscopy

ZFC	Zero field cooling
eV	Electron volt
kOe	Kilo Oersted
at %	Atomic percentage
nm	Nanometer
mg	Mili gram
$\mu\text{M}$	Micrometer
PL	Photoluminescence