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List of Abbreviations

CTB	Charge transfer band
D_{core}	Diameter of core particle
DLS	Dynamic light scattering
EDXS	Energy dispersive X-ray spectroscopy
emu/g	Electron mass unit per gram
eV	Electron volt
FC	Field cooled
FWHM	Full width at half maximum
JCPDS	Joint Committee on Powder Diffraction Standards
LEF	Luminescence enhancement factor
M-H	Magnetization versus magnetic field
MNPs	Magnetic nanoparticles
MPMS	Magnetic Property Measurement System
MRI	Magnetic resonance imaging
NPs	nanoparticles
SAR	Specific absorption rate
SPM	Superparamagnetic
SEM	Scanning electron microscope
SPR	Surface plasmon resonance
SQUID	Superconducting Quantum Interference Device
TEM	Transmission electron microscopy
TRM	Thermoremanent magnetization

UV-Vis	Ultraviolet-Visible
VB	Valence band
W/g	Watt per gram
XRD	X-ray Diffraction
ZFC	Zero field cooled