List of Symbols

Symbols	Name	Units
$\mu_0 H$	Magnetic flux density	Tesla
H	Magnetic field strength	Oersted
ΔS_M	Isothermal entropy change	J/Kg.K
ΔT_{ad}	Adiabatic temperature change	Kelvin
$C_{P,H}$	Heat capacity at const. pressure and magnetic field	J/Kg.K
2θ	X-Ray diffraction angle	Degree (°)
θ_D	Debye temperature	Kelvin (K)
ρ	Resistivity	Ω.cm
ρ_0	Resistivity without magnetic field	Ω.cm
ρ_H	Resistivity under magnetic field	Ω.cm
ρ_{PI}	Resistivity in paramagnetic insulating state	Ω.cm
ρ_{FM}	Resistivity in ferromagnetic metallic state	Ω.cm
χ	Magnetic susceptibility	dimensionless
S_{abs}	Absolute thermoelectric power	μV/K
S_{PI}	Thermopower in paramagnetic insulating state	μV/K
S_{FM}	Thermopower in ferromagnetic metallic state	μV/K
T_C	Curie temperature	Kelvin (K)
T_{MI}	Metal-insulator transition temperature	Kelvin (K)
g	Lande factor	dimensionless
M	Magnetization	emu/gm
M_0	Saturation magnetization	emu/gm
MR	Magnetoresistance	Relative
CMR	Colossal magnetoresistance	Relative
$LFMR$	Low field magnetoresistance	Relative
RCP	Relative cooling power	J/cm^3

Physical constants

Symbol	Quantity	Value	Units
e	Electronic charge	1.60218×10^{-19}	Coulomb
K_B	Boltzmann constant	1.3807×10^{-23}	J/K
μ_0	Vacuum Permeability	$4\pi \times 10^{-7}$	J/Tesla
μ_B	Bohr magneton	9.274×10^{-24}	J/Tesla

Glossary of abbreviations

Abbreviation	Meaning
a.u.	Arbitrary Units
FWHM	Full Width at Half Maximum
XRD	X-ray diffraction
K	Potassium
T	Temperature

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