Preparation of Science Manuscripts for the IEEE Open Journal of Engineering in Medicine and Biology (OJEMB)

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$$\int_0^{r_2} F(r,\varphi)drd\varphi = [\sigma r_2/(2\mu_0)] \int_0^{+\infty} exp(-\lambda|z_j - z_i|)\lambda^{-1}J_1(\lambda r_2)J_0(\lambda r_1)d\lambda \quad (1)$$

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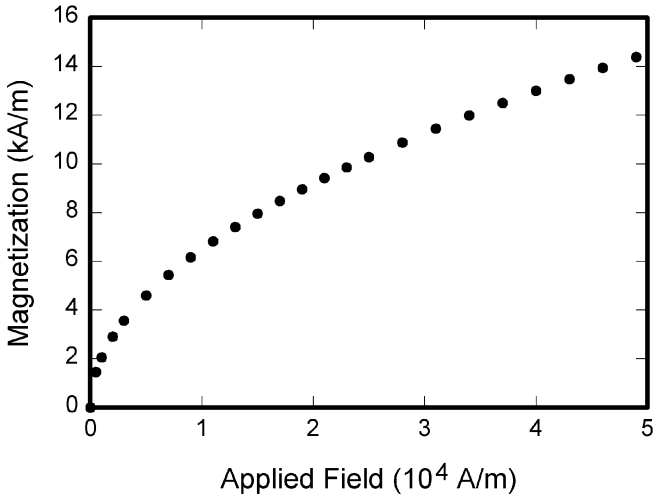

Fig. 1: Magnetization as a function of applied field. Note that "Fig." is abbreviated. There is a period after the figure number, followed by two spaces. It is good practice to explain the significance of the figure in the caption.

UNITS FOR MAGNETIC PROPERTIES

Symbol	Quantity	Conversion from Gaussian and CGS EMU to SI[a]
Φ	magnetic flux	$1\ Mx \rightarrow 10^{-8}\ Wb = 10^{-8}\ V\cdot S$
B	magnetic flux density, magnetic induction	$1\ G \rightarrow 10^{-4}\ T = 10^{-4}\ Wb/m^2$
H	magnetic field strength	$1\ Oe \rightarrow 10^3/(4\pi)\ A/m$
m	magnetic moment	$1\ erg/G = 1\ emu \rightarrow 10^{-3}\ A\cdot m^2 = 10^{-3}A/m$
M	magnetization	$1\ erg/(G\cdot cm^3) = 1\ emu/cm^3 \rightarrow 10^3\ A/m$
4πM	magnetization	$1\ G \rightarrow 10^3/(4\pi)\ A/m$
σ	specific magnetization	$1\ erg/(G\cdot g) = 1\ emu/g \rightarrow 1\ A\cdot m^2/kg$
j	magnetic dipole moment	$1\ erg/G = 1\ emu \rightarrow 4\pi\times 10^{-10}\ Wb\cdot m$
J	magnetic polarization	$1\ erg/(G\cdot cm^3) = 1\ emu/cm^3 \rightarrow 4\pi\times 10^{-4}\ T$
χ, κ	susceptibility	$1 \rightarrow 4\pi$
χ_ρ	mass susceptibility	$1\ cm^3/g \rightarrow 4\pi\times 10{-}3\ m^3/kg$
μ	permeability	$1 \rightarrow 4\ \pi\times 10^{-7}\ H/m = 4\pi\times 10{-}7\ Wb/(A\cdot m)$
μ_ρ	relative permeability	$\mu \rightarrow \mu_r$
w,W	energy density	$1\ erg/cm^3 \rightarrow 10^{-1}\ J/m^3$
N,D	demagnetizing factor	$1 \rightarrow 1/(4\pi)$

TABLE I: Vertical lines are optional in tables. Statements that serve as captions for the entire table do not need footnote letters.

[a]Gaussian units are the same as cg emu for magnetostatics; Mx = maxwell, G = gauss, Oe = oersted; Wb = weber, V = volt, s = second, T = tesla, m = meter, A = ampere, J = joule, kg = kilogram, H = henry.

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References

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[6] *Example Periodical 2:* E. P. Wigner, "Theory of traveling-wave optical laser", *Phys. Rev.*, vol. 134, pp. A635–A646, Dec. 1965.

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[24] **Example for papers presented at conferences (unpublished):** D. Ebehard and E. Voges, "Digital single sideband detection for interferometric sensors", presented at the 2nd Int. Conf. Optical Fiber Sensors, Stuttgart, Germany, Jan. 2-5, 1984.

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