

Department: Head

# Title: No More Than Four Lines

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Digital Object Identifier 10.1109/MCE.2022.Doi Number

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## MAGAZINE STYLE

Use American English when writing your paper. The serial comma should be used (“a, b, and c” not “a, b and c”). In American English, periods and commas are within quotation marks, like “this period.” Other punctuation is “outside”! The use of technical jargon, slang, and vague or informal English should be avoided. Generic technical terms should instead be used.

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All acronyms should be defined at first mention in the abstract and in the main text. Define in figures, tables, and footnotes only if not defined in the discussion of the figure/table. Acronyms consist of capital letters (except where salted with lowercase), but the terms they represent need not be given initial caps unless a proper name is involved (“central processing unit” [CPU] but “Fourier transform” [FT]). Use of “e.g.” and “i.e.” okay, but refrain from using “etc.” It is preferable to use these abbreviations only in parentheses (e.g., like this).

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Scalar *variables* and *physical constants* should be italicized, and a bold (non-italics) font should be used for **vectors** and **matrices**. Do not italicize subscripts unless they are variables.

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Punctuate display equations when they are part of the sentence preceding it, as in  $a^2 + b^2 = c^2$ . In addition, if the text following the equation flows logically as a part of the display equation,

$$A = \pi r^2. \quad (1)$$

use ending punctuation (comma) after the display equation.

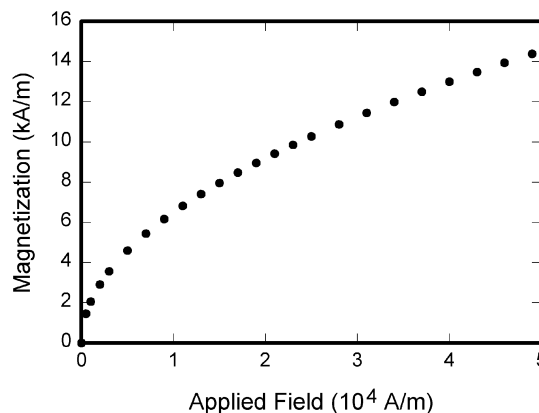
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**Figure 1.** Note that “Figure” is spelled out. There is a period after the figure number, followed by one space. It is good practice to briefly explain the significance of the figure in the caption. (Used, with permission, from [4].)

**Table 1. Units for magnetic properties.**

Symbol	Quantity	Conversion from Gaussian and CGS EMU to SI <sup>a</sup>
$\Phi$	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 <sup>2</sup>
$H$	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 <sup>2</sup> $= 10^{-3}$ J/T
$M$	Magnetization	1 erg/(G $\cdot$ cm <sup>3</sup> ) = 1 emu/cm <sup>3</sup> $\rightarrow$ $10^{-3}$ A/m
$4\pi M$	Magnetization	1 G $\rightarrow$ $10^{-3}/(4\pi)$ A/m
$\sigma$	Specific magnetization	1 erg/(G $\cdot$ g) = 1 emu/g $\rightarrow$ 1 A $\cdot$ m <sup>2</sup> /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 <sup>3</sup> ) = 1 emu/cm <sup>3</sup> $\rightarrow$ $4\pi \times 10^{-4}$ T
$\chi, \kappa$	Susceptibility	1 $\rightarrow$ $4\pi$
$\chi\rho$	Mass susceptibility	1 cm <sup>3</sup> /g $\rightarrow$ $4\pi \times 10^{-3}$ m <sup>3</sup> /kg
$\mu$	Permeability	1 $\rightarrow$ $4\pi \times 10^{-7}$ H/m $= 4\pi \times 10^{-7}$ Wb/(A $\cdot$ m)
$\mu_r$	Relative permeability	$\mu \rightarrow \mu_r$
$w, W$	Energy density	1 erg/cm <sup>3</sup> $\rightarrow$ $10^{-1}$ J/m <sup>3</sup>
$N, D$	Demagnetizing factor	1 $\rightarrow$ $1/(4\pi)$

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

<sup>a</sup>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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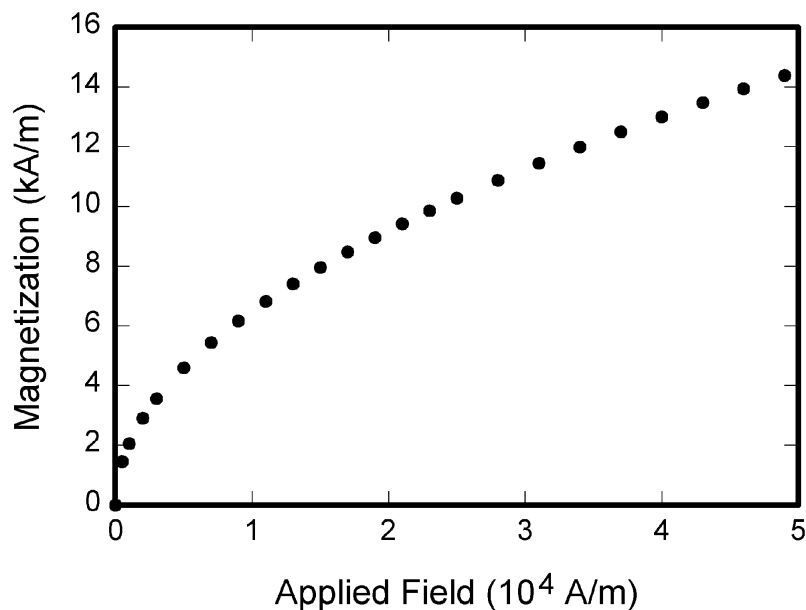
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**Figure 2.** Note that “Figure” is spelled out. There is a period after the figure number, followed by one space. It is good practice to briefly explain the significance of the figure in the caption. (Used, with permission, from [4].)

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## ACKNOWLEDGMENTS

We thank A, B, and C. This work was supported in part by a grant from XYZ.

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