

Reviews of Modern Physics Style Guide

XV. UNITS

RMP uses the metric system of units. For the most up-to-date listing of these units, see

<http://physics.nist.gov/cuu/Units/>

or check *Books in Print* under International System of Units. The most recent supplement to *The International System of Units* (SI) is dated 2000 and is available from BIPM, Sevres, France, and a still useful summary is that of Barry N. Taylor, *Guide for the Use of the International System of Units* (SI) *The Metric System* (Taylor, 1995). See Table I for standard units and abbreviations.

TABLE I Standard SI units. Note that the kelvin does not have a degree symbol. Thus a temperature of 180 K does not have a degree symbol and is read “180 kelvins.”

Unit	Abbreviation
ampere	A
barn	b
becquerel	Bq
coulomb	C
electron volt	eV
farad	F
gram	g
henry	H
hertz	Hz
kelvin	K
degrees Celsius	°C
meter	m
ohm	Ω
pascal	Pa
second	s
steradian	sr
tesla	T
volt	V
watt	W
weber	Wb

Other units used in an *RMP* article should be defined in terms of the standard units.

RMP discourages the use of historic units that have been superseded in the modern physics literature, even though these units may be used by authors in other fields. These include wave numbers for energy, oersteds and gauss for magnetic fields, atmospheres for pressure, and curies for radioactivity.

The following guidelines for using units should be observed.

- (1) The number (numeral) is separated from the unit following by a full space, e.g., 1.8 MeV.
- (2) Most units have a single form for both singular and plural, i.e., 1.0 cm and 2.7 cm.
- (3) Most symbols for units are printed in lower-case roman type without periods. Units derived from proper names, however, are abbreviated with initial capital letters, i.e., coulomb (C), weber (Wb).
- (4) The abbreviated form of a unit must be used after a number given in numerals: 1 cm (not 1 centimeter) but the unit is written out in cases like “a few centimeters.”
- (5) Decimal multiples of units are indicated by the use of prefixes. See Table II below. The combination of prefix and unit symbol is treated as a single symbol. For instance, such a combination can be raised to a power, i.e., cm^2 . Compound units are written 1 g cm^2 or g $\text{cm}^2 \text{s}^{-2}$, with a thin space between unit parts. Avoid ambiguous compound units, e.g., 6 J/ cm^3/s . Write instead, for example, 6 J $\text{cm}^{-3} \text{s}^{-1}$.

TABLE II Multiplier prefixes for SI units.

Prefix	Symbol	Factor	Prefix	Symbol	Factor
yotta	Y	10^{24}	deci	d	10^{-1}
zetta	Z	10^{21}	centi	c	10^{-2}
exa	E	10^{18}	milli	m	10^{-3}
peta	P	10^{15}	micro	μ	10^{-6}
tera	T	10^{12}	nano	n	10^{-9}
giga	G	10^9	pico	p	10^{-12}
mega	M	10^6	femto	f	10^{-15}
kilo	k	10^3	atto	a	10^{-18}
hecto	h	10^2	zepto	z	10^{-21}
deka	da	10^1	yocto	y	10^{-24}

References

Taylor, B. N., 1995, *Guide for the Use of the International System of Units* (SI) *The Metric System* (DIANE Publishing Co., Collingdale, Pennsylvania).