

**3. INTERNATIONAL SYSTEM OF UNITS (SI)**

See “The International System of Units (SI),” NIST Special Publication **330**, B.N. Taylor, ed. (USGPO, Washington, DC, 1991); and “Guide for the Use of the International System of Units (SI),” NIST Special Publication **811**, 1995 edition, B.N. Taylor (USGPO, Washington, DC, 1995).

**SI prefixes**

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

## 2 3. International system of units (SI)

Physical quantity	Name of unit	Symbol
<i>Base units</i>		
length	meter	m
mass	kilogram	kg
time	second	s
electric current	ampere	A
thermodynamic temperature	kelvin	K
amount of substance	mole	mol
luminous intensity	candela	cd
<i>Derived units with special names</i>		
plane angle	radian	rad
solid angle	steradian	sr
frequency	hertz	Hz
energy	joule	J
force	newton	N
pressure	pascal	Pa
power	watt	W
electric charge	coulomb	C
electric potential	volt	V
electric resistance	ohm	$\Omega$
electric conductance	siemens	S
electric capacitance	farad	F
magnetic flux	weber	Wb
inductance	henry	H
magnetic flux density	tesla	T
luminous flux	lumen	lm
illuminance	lux	lx
celsius temperature	degree celsius	$^{\circ}\text{C}$
activity (of a radioactive source)*	becquerel	Bq
absorbed dose (of ionizing radiation)*	gray	Gy
dose equivalent*	sievert	Sv

\*See our section 29, on “Radioactivity and radiation protection,” p. 312.