

# Explanatory Notes

## Units & Physical Quantities

atm	atmosphere
°C	degree Celsius
cal	calorie
d	day
g	gram
h	hour
J	Joule
K	degree Kelvin
L	liter
m	meter
m	molal (mol/kg)
M	molar (mol/L)
min	minute
Π	Pi (~ 3.1416)
Pa	Pascal
s	second
V	Volt
W	Watt
y	year

## Symbols & Abbreviations

↑	Increase (alt+up)
↓	Decrease (alt+down)
°	Degree, standard (alt+0)
⇒	It follows that (alt+f)
→	Forward reaction (alt+right)
⇌	Rx proceeding in both directions (alt+left)
⇌	Rx in equilibrium (alt+e)
↔	Resonance structures (alt+r)
~	Approximately
×	Multiplied by (alt+m)
·	Addition compound, hydrate, free radical (alt+.)
·	multiplied by
÷	Divided by (alt+d)
Δ	Net change (alt+c)
½	Half (alt+h)
[]	Coordination compound
<sub>x</sub> Y	x is the atomic number
<sup>x</sup> Y	x is the mass number, isotope
Y <sub>x</sub>	x is the number of atoms

Y<sup>x+</sup><sub>w</sub> x is the ionic charge, w is number of atoms

α	alpha particle
β	beta particle
δ	derivative
ε	emf, electrode potential
γ	photon
π	pion
λ	wavelength
μ <sup>±</sup>	muon
ν	frequency
ν <sub>e</sub>	neutrino
bp	boiling point
d	deuteron
e <sup>-</sup>	electron
h	helion
k	rate constant
K	equilibrium constant
log	logarithm (common, base 10)
ln	logarithm (natural, base e)
MW	molecular weight
mp	melting point
n	neutron
P	pressure
p	proton
ppb	part per billion
ppm	parts per million
T	temperature
t	triton
t <sub>1/2</sub>	half-life
V	volume
v/v	volume/volume (concentration)
w/v	weight/volume (concentration)

## Acronyms

ACC	American Chemistry Council
ACS	American Chemical Society
ASTM	American Society for Testing and Materials
ATSDR	US Agency for Toxic Substances and Disease Registry
CDC	US Centers for Disease Control and Prevention
CPSC	US Consumer Product Safety Commissions

DOE Department of Energy  
EEA European Environment Agency  
EPA US Environmental Protection Agency  
FDA US Food and Drug Administration  
IUPAC International Union of Pure and Applied Chemistry  
MSDS Material safety data sheet  
NIEHS US National Institute of Environmental Health Science

NIH US National Institute of Health  
NIOSH US National Institute of Safety and Health  
NIST National Institute of Standards and Technology  
OECD Organization for Economic Cooperation and Development  
UNEP United Nations Environment Programme