

University of Wyoming – Chemistry 1000

SI Units and Metric System

SI Units:

Fundamental

Physical Quantity	SI Unit	Abbreviation
Mass	kilogram	<i>kg</i>
Length	meter	<i>m</i>
Time	second	<i>s</i> or <i>sec</i>
Temperature	(degree) Kelvin	<i>K</i>
Number of Particles	mole	<i>mol</i>
Electrical Current	ampere	<i>A</i> or <i>Amp</i>

Composite

Physical Quantity	SI Unit	Abbreviation
Volume	liter	$L = m^3/1000$
Energy	Joule	$J = kg \cdot (m/s)^2$
Force	Newton	$N = kg \cdot m/(s^2)$
Pressure	Pascal	$Pa = kg/(ms^2)$
Electrical Charge	Coulomb	$C = A \cdot s$
Frequency	Hertz	$Hz = s^{-1}$

Metric System:

exa (E)	10^{18}		deci (d)	10^{-1}	✓
peta (P)	10^{15}		centi (c)	10^{-2}	✓
tera (T)	10^{12}		milli (m)	10^{-3}	✓
giga (G)	10^9		micro (μ)	10^{-6}	✓
mega (M)	10^6	✓	nano (n)	10^{-9}	✓
kilo (k)	10^3	✓	pico (p)	10^{-12}	
deca (da)	10^1		femto (f)	10^{-15}	

✓ = you should know these