

ภาคผนวก ค

คำย่อสามัญสำหรับหน่วยวัด

คำย่อสามัญสำหรับหน่วยวัด

A, ampere

A, angstrom

AC, alternating current

a.m., ante meridiem

°C, degree Celsius

Ci, curie

cm, centimeter

cps, cycles per second

dB, decibel (specify scale)

DC, direct current

ภาคผนวก ง

คำย่อสัญลักษณ์สำหรับปริมาณและหน่วยวัด

คำย่อสัญลักษณ์สำหรับปริมาณและหน่วยวัด

Symbol	Quantity	Unit
Space, time and related quantities		
l	length	m, mm, μm (not μ), nm, etc.
A	area	m^2 , cm^2 , mm^2 , etc.
V	volume	m^3 , dm^3 , (or l), cm^3 , (or ml), mm^3 , (or l), etc.
λ	wave length	nm (not $\text{m}\mu$); not \AA .
t	time	d (not day), h (not hr), min, s (not sec), ms, μs , etc.
ν, f	frequency	Hz
Mechanical and related quantities		
m	mass	t, kg, g, mg, μ (not γ), etc.
ρ	density	$\text{g}\cdot\text{cm}^{-3}$
d	relative density	(dimensionless)
F	force	$\text{N}(\text{kg}\cdot\text{m}\cdot\text{s}^{-2})$
E	energy	J (not cal)
P	pressure	Pa ($\text{N}\cdot\text{m}^{-2}$)
p	partial pressure	1 bar = 10^5 Pa (1 atm = 101325 Pa; 1 mmHg = 1 torr = 13.2 Pa)
s	sedimentation coefficient	$\text{S} = 10^{13}$
η	viscosity	$\text{P} = 0.1 \text{ Pa}\cdot\text{s}$
W	watt	$\text{kg}\cdot\text{m}^2\cdot\text{s}^{-3}$
Molecular and related quantities		
n	amount of substance	mol, mmol, μmol , etc.
M_r	relative molecular mass	dimensionless
M	molar mass	$\text{g}\cdot\text{mol}^{-1}$
m	molecular mass	Da (dalton)
$C_B [B]$	concentration of substance B	$\text{M}(\text{mol}\cdot\text{l}^{-1})$, mM, etc.
v	partial specific volume	dimensionless
Thermodynamic and related quantities		
T	thermodynamic temperature	K
t, θ	Celsius temperature	$^{\circ}\text{C}$
q, Q	heat	J (not cal)
I	ionic strength	$\text{M}(\text{mol}\cdot\text{l}^{-1})$, mM, etc.
G	Gibbs free energy	J(not cal)
Chemical reactions		
K	equilibrium constant	(dimensions depend on the order of reaction)
K_m	Michaelis constant	M, mM, etc.
K_i	inhibition constant	M, mM, etc.
k	rate constant	s^{-1} , or $\text{M}\cdot\text{s}^{-1}$, etc.
ν	rate of reaction	$\text{mol}\cdot\text{s}^{-1}$, $\text{mmol}\cdot\text{s}^{-1}$ etc.
V_{max}, V_0	rate of enzyme-catalyzed reaction at infinite concentration of substrate	
$k_L a$	volumetric mass-transfer coefficient in liquid film	h^{-1} or min^{-1}
$K_L a$	overall volumetric coefficient of mass transfer	h^{-1} or min^{-1}
Electricity and magnetism		
I	electric current	A
V	potential difference	V
C	capacitance	F
H	magnetic field strength	G (gauss) = 10^{-4} T
R	resistance	Ω
k	conductivity	$\text{S}(\Omega^{-1})$

คำย่อสัญลักษณ์สำหรับปริมาณและหน่วยวัด (ต่อ)

Symbol	Quantity	Unit
Light and related electromagnetic radiation		
I	luminous intensity	cd
T	transmittance I/I_0^{-1}	(dimensionless)
A	absorbance (-log T)	(dimensionless)
ϵ	molar absorption coefficient	$M^{-1}.cm^{-1}$
Other units		
	Curie, Ci; Roentgen, R; Roentgen equivalent man, rem; Roentgen equivalent physical, resp; Acceleration of gravity, g.	
	Prefixes for units are: T, tera (10^{12}); G, giga (10^9); M, mega (10^6); k, kilo (10^3); d, deci (10^{-1}); c, centi (10^{-2}); m, milli (10^{-3}); μ , micro (10^{-6}); n, nano (10^{-9}); p, pico (10^{-12}); f, femto (10^{-15}); a, atto (10^{-18})	

ภาคผนวก จ

คำย่อสำหรับ Physical Quantities หรือ Chemical Compounds

คำย่อสำหรับ Physical Quantities หรือ Chemical Compounds

Abbreviation	Full words	Notes
abs.	absolute	<i>e.g.</i> abs. alcohol
BOD	biological oxygen demand	
b.p.	boiling point	
calc.	calculated	
cf.	compare	<i>e.g.</i> (cf. Ref. 10)
COD	chemical oxygen demand	
conc.	concentrated	
cpm	counts per minute	
dil.	dilute	
DO	dissolved oxygen	
dpm	disintegration per minute	
<i>e.g.</i>	for example	
et al.	et alia (and others)	use only in citing in literature, and never in a list of references
Expt. (pl. Expts.)	Experiment	use only when a particular experiments is referred to; <i>e.g.</i> Expt. 2
Fig. (pl. Figs.)	Figure	use only when a particular figure is referred to.
<i>i.e.</i>	that is	
max.	maximum	
min.	minimum	
<i>m-, p-, o-,</i>	meta-, para-, ortho-,	only in names of organic compounds
m.p.	melting point	
<i>n-</i>	<i>normal</i>	only in names of organic compounds
no.	number	use only when followed by a number; <i>e.g.</i> no. 3, do not use nr. or #
%	percent	use only when proceeded by a number
p. (pl. pp.)	page	
ppb	parts per billion	not for concentration of solution
ppm	parts per million	not for concentration of solution
ppt.	precipitate	
Ref. (pl. Refs.)	reference	use only when followed by a number, in the text
R_f	distance travelled by zone, divided by distance travelled by solvent front	
<i>rpm</i>	revolution per minute	
RQ	respiratory quotient	
S.D.	standard deviation of a series	
S.E.	standard error of mean of series	
<i>sec-</i>	<i>secondary</i>	in names of organic compounds
spec. act.	specific activity	
temp.	temperature	
<i>tert-(t-)</i>	<i>tertiary</i>	in names of organic compounds
UV	ultraviolet	
vol. (pl. vols.)	volumes	use only when proceeded by a number
vs.	versus	
v/v	volume: volume	
vvm	volume per volume per minute	
wt.	weight	
w/v	weight: volume	
w/w	weight: weight	

ภาคผนวก จ

คำย่อสำหรับ Semi-Systematic หรือ Trivial Names of Organic Compounds

คำย่อสำหรับ Semi-Systematic หรือ Trivial Names of Organic Compounds

คำย่อเหล่านี้สามารถใช้โดยไม่ต้องให้คำจำกัดความ

ADP	adenosine 5'-diphosphate
AMP	adenosine 5'-monophosphate
cAMP	cyclic adenosine 3',5'-monophosphate
ATP	adenosine 5'-triphosphate
ATPase	adenosine triphosphatase
CDP	cytidine 5'-diphosphate
CMP	cytidine 5'-monophosphate
CoA	coenzyme A
CTP	cytidine 5'-triphosphate
DNA	ddeoxyribonucleic acid
Dnase	deoxyribonuclease
EDTA	ethylenediaminetetraacetic acid
FAD	flavin adenine dinucleotide
FMN	flavin mononucleotide
GDP	guanosine 5'-diphosphate
GMP	guanosine 5'-monophosphate
GTP	guanosine 5'-triphosphate
IDP	inosine 5'-diphosphate
IMP	inosine 5'-monophosphate
ITP	inosine 5'-triphosphate
NAD, NAD ⁺	nicotinamide adenine dinucleotide
NADH	reduced NAD
NADP, NADP ⁺	nicotinamide adenine dinucleotide phosphate
NADPH	reduced NADP
NMN	nicotinamide monocleotide
RNA	ribonucleic acid
mRNA	messenger RNA
rRNA	ribosomal RNA
tRNA	transfer RNA
Rnase	ribonuclease
TDP	thymidine 5'-diphosphate
TMP	thymidine 5'-monophosphate
TTP	thymidine 5'-triphosphate
DDP	uridine 5'-diphosphate
UMP	uridine 5'-monophosphate
UTP	uridine 5'-triphosphate

ภาคผนวก ช

รายนามคณะทำงานผู้จัดทำคู่มือการเขียนวิทยานิพนธ์

รายนามคณะกรรมการผู้จัดทำคู่มือการเขียนวิทยานิพนธ์

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