

Table-A. SI base units

Name	SI units	Non-SI units accepted for use with the SI	Non-SI units accepted in Japanese Measurement
length	m (metre)	ua (astronomical unit)	$\text{\AA} \rightarrow \text{nm}$ (The unit of nm is recommended in the paper)
mass	kg (kilogram)	t (tonne), Da (dalton), u (unified atomic mass unit)	
time	s (second)	min (minute), h (hour), d (day)	
electric	A (ampere)		
thermodynamic temperature	K (kelvin)		
amount of substance	mol (mole)		
luminous intensity	cd (candela)		

SI prefixes

Factor	Name	Symbol
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
1		
10^{-1}	deci	d
10^{-2}	centi	c
10^{-3}	milli	m
10^{-6}	micro	μ
10^{-9}	nano	n
10^{-12}	pico	p
10^{-15}	femto	f
10^{-18}	atto	a
10^{-21}	zepto	z
10^{-24}	yocto	y

Table-B. Examples of coherent derived units in the SI expressed in terms of base units

Name	SI units	Non-SI units accepted for use with the SI	Non-SI units accepted in Japanese Measurement
area	m^2 (metre)	ha (hectare)	
volume	m^3 (cubic metre)	l, L (litre)	
speed, velocity	m/s (metre per second)		
acceleration	m/s^2 (metre per second squared)		
wavenumber	m^{-1} (reciprocal metre)		
density, mass density	kg/m^3 (kilogram per cubic metre)		
surface density	kg/m^2 (kilogram per square metre)		
specific volume	m^3/kg (cubic metre per kilogram)		
current density	A/m^2 (ampere per square metre)		
magnetic field strength	A/m (ampere per metre)		
amount concentration, concentration	mol/m^3 (mole per cubic metre)		mass fraction%, volume fraction%, *1)
mass concentration	kg/m^3 (kilogram per cubic metre)		mass fraction%, mass%, *1)
luminance	cd/m^2 (candela per square metre)		
refractive index	1 (one)		
relative permeability	1 (one)		

*1) % (parts per hundred), ‰ (parts per thousand), ppm (parts per million), ppb (parts per billion), ppt (parts per trillion), ppq (parts per quadrillion)

Table-C. Coherent derived units in the SI with special names and special names and symbols

Name	SI units	Expressed in terms of other SI units	Non-SI units accepted for use with the SI	Non-SI units accepted in Japanese Measurement
plane angle	rad (radian)	1	° (degree), ' (minute), " (second)	
solid angle	sr (steradian)	1		
frequency	Hz (hertz)			rpm (revolution per minute),
force	N (newton)			
pressure, stress	Pa (pascal)	N/m^2		atm (atmosphere), Torr (torr)
energy, work, amount of heat	J (joule)	N m	eV (electronvolt)	
power, radiant flux	W (watt)	J/s		var (var), VA (volt ampere)
electric charge, amount of electricity	C (coulomb)			
electric potential difference, electromotive force	V (volt)	W/A		
capacitance	F (farad)	C/V		
electric resistance	Ω (ohm)	V/A		
electric conductance	S (siemens)	A/V		
magnetic flux	Wb (weber)	V s		
magnetic flux density	T (tesla)	Wb/m^2		
inductance	H (henry)	Wb/A		
Celsius temperature	°C (degree Celsius)			
luminous flux	lm (lumen)	cd sr		
illuminance	lx (lux)	lm/m^2		
activity referred to a radionuclide	Bq (becquerel)			
absorbed dose, specific energy (imparted), kerma	Gy (gray)	J/kg		
dose equivalent, ambient dose equivalent, directional dose equivalent, personal dose equivalent	Sv (sievert)	J/kg		
catalytic activity	kat (katal)			

Table-D. Examples of SI coherent derived units whose names and symbols include SI coherent derived units with special names and symbols

Name	SI units	Non-SI units accepted for use with the SI	Non-SI units accepted in Japanese Measurement
dynamic viscosity	Pa s (pascal second)		P (poise)
moment of force	N m (newton metre)		
surface tension	N/m (newton per metre)		
angular velocity	rad/s (radian per second)		
angular acceleration	rad/s^2 (radian per second squared)		
heat flux density, irradiance	W/m^2 (watt per square metre)		
heat capacity, entropy	J/K (joule per kelvin)		
specific heat capacity, specific entropy	J/(kg K) (joule per kilogram kelvin)		
specific energy	J/kg (joule per kilogram)		
thermal conductivity	W/(m K) (watt per metre kelvin)		
energy density	J/m^3 (joule per cubic metre)		
electric field strength	V/m (volt per metre)		
electric charge density	C/m^3 (coulomb per cubic metre)		
surface charge density	C/m^2 (coulomb per square metre)		
electric flux density, electric displacement	C/m^2 (coulomb per square metre)		
permittivity	F/m (farad per metre)		
permeability	H/m (henry per metre)		
molar energy	J/mol (joule per mole J/mol)		
molar entropy, molar heat capacity	J/(mol K) (joule per mole kelvin)		
exposure (x- and γ -rays)	C/kg (coulomb per kilogram)		
absorbed dose rate	Gy/s (gray per second)		
radiant intensity	W/sr (watt per steradian)		
radiance	$\text{W}/(\text{m}^2 \text{sr})$ (watt per square metre steradian)		
catalytic activity concentration	kat/m^3 (katal per cubic metre)		

Table-E. Others

Name	SI units	Non-SI units accepted for use with the SI	Non-SI units accepted in Japanese Measurement
kinematic viscosity			St (stokes)
logarithmic ratio quantities			dB (decibel)
potential Hydrogen			pH (ph)