

Quantity		Unit				Conversion of other units into SI units
Name	Symbol	Name	Symbol	Expression in SI base units	Expression in other SI units	
Wave number	ν	one per metre	1/m	m^{-1}		
Wavelength	λ	micrometre nanometre	μm nm	10^{-6} m 10^{-9} m		
Area	A, S	square metre	m^2	m^2		
Volume	V	cubic metre	m^3	m^3		1 mL = 1 cm^3 = 10^{-6} m^3
Frequency	ν	hertz	Hz	s^{-1}		
Density	ρ	kilogram per cubic metre	kg/m^3	$\text{kg}\cdot\text{m}^{-3}$		1 g/mL = 1 g/cm^3 = $10^3 \text{ kg}\cdot\text{m}^{-3}$
Velocity, speed	v	metre per second	m/s	$\text{m}\cdot\text{s}^{-1}$		
Force	F	newton	N	$\text{m}\cdot\text{kg}\cdot\text{s}^{-2}$		1 dyne = 1 $\text{g}\cdot\text{cm}\cdot\text{s}^{-2}$ = 10^{-5} N 1 kp = 9.806 65 N
Pressure, stress	p	pascal	Pa	$\text{m}^{-1}\cdot\text{kg}\cdot\text{s}^{-2}$	$\text{N}\cdot\text{m}^{-2}$	1 dyne/ cm^2 = 10^{-1} Pa = $10^{-1} \text{ N}\cdot\text{m}^{-2}$ 1 atm = 101 325 Pa = 101.325 kPa 1 bar = 10^5 Pa = 0.1 MPa 1 mm Hg = 133.322 387 Pa 1 psi = 6.894 757 kPa 1 Torr = 133.322 368 Pa
Dynamic viscosity	η	pascal second	Pa·s	$\text{m}^{-1}\cdot\text{kg}\cdot\text{s}^{-1}$	$\text{N}\cdot\text{s}\cdot\text{m}^{-2}$	1 P = $10^{-1} \text{ Pa}\cdot\text{s}$ = $10^{-1} \text{ N}\cdot\text{s}\cdot\text{m}^{-2}$ 1 cP = 1 mPa·s
Kinematic viscosity	ν	square metre per second	m^2/s	$\text{m}^2\cdot\text{s}^{-1}$	$\text{Pa}\cdot\text{s}\cdot\text{m}^3\cdot\text{kg}^{-1}$ $\text{N}\cdot\text{m}\cdot\text{s}\cdot\text{kg}^{-1}$	1 St = 1 $\text{cm}^2\cdot\text{s}^{-1}$ = $10^{-4} \text{ m}^2\cdot\text{s}^{-1}$
Energy	W	joule	J	$\text{m}^2\cdot\text{kg}\cdot\text{s}^{-2}$	$\text{N}\cdot\text{m}$	1 erg = 1 $\text{cm}^2\cdot\text{g}\cdot\text{s}^{-2}$ = 1 dyne·cm = 10^{-7} J 1 cal = 4.1868 J
Power, radiant flux	P	watt	W	$\text{m}^2\cdot\text{kg}\cdot\text{s}^{-3}$	$\text{N}\cdot\text{m}\cdot\text{s}^{-1}$ $\text{J}\cdot\text{s}^{-1}$	1 erg/s = 1 dyne·cm· s^{-1} = 10^{-7} W 10^{-7} W = $10^{-7} \text{ N}\cdot\text{m}\cdot\text{s}^{-1}$ = $10^{-7} \text{ J}\cdot\text{s}^{-1}$
Absorbed dose (of radiant energy)	D	gray	Gy	$\text{m}^2\cdot\text{s}^{-2}$	$\text{J}\cdot\text{kg}^{-1}$	1 rad = 10^{-2} Gy
Electric potential difference, voltage	U	volt	V	$\text{m}^2\cdot\text{kg}\cdot\text{s}^{-3}\cdot\text{A}^{-1}$	$\text{W}\cdot\text{A}^{-1}$	
Electric resistance	R	ohm	Ω	$\text{m}^2\cdot\text{kg}\cdot\text{s}^{-3}\cdot\text{A}^{-2}$	$\text{V}\cdot\text{A}^{-1}$	
Electric charge	Q	coulomb	C	A·s		
Activity referred to a radionuclide	A	becquerel	Bq	s^{-1}		1 Ci = $37\cdot 10^9 \text{ Bq}$ = $37\cdot 10^9 \text{ s}^{-1}$

Concentration (of amount of substance), molar concentration	c	mole per cubic metre	mol/m ³	mol·m ⁻³		1 mol/L = 1 M = 1 mol/dm ³ = 10 ³ mol·m ⁻³
Mass concentration	ρ	kilogram per cubic metre	kg/m ³	kg·m ⁻³		1 g/L = 1 g/dm ³ = 1 kg·m ⁻³
Catalytic activity	Z	katal	kat	mol·s ⁻¹		