

Only internationally recognized abbreviations and brevity codes should be used. In principle, SI units should be used to denote units, in accordance with the symbols below.

SI prefix, denoting a multiple of the original unit, such as  $10^9$ ,  $10^6$ ,  $10^3$ ,  $10^{-3}$ ,  $10^{-6}$ ,  $10^{-9}$  and  $10^{-12}$  are shown as G, M, k, m,  $\mu$ , n and p, respectively. Symbols of units do not require a period (.) or “s” for plurals.

Length	nm, $\mu$ m, mm, cm, m, km	Gravity acceleration	g
Area	$\text{mm}^2$ , $\text{cm}^2$ , $\text{m}^2$ , $\text{km}^2$	Pressure, stress	Pa, hPa, MPa
Capacity (liquid, gas)	$\mu$ l, ml, dl, l, $\text{m}^3$	Current	$\mu$ A, mA, A, kA
Capacity (solid)	$\text{mm}^3$ , $\text{cm}^3$	Power voltage	$\mu$ V, mV, V, kV
Mass	pg, $\mu$ g, mg, g, kg	Electric resistance, impedance	$\text{m}\Omega$ , $\Omega$ , k $\Omega$ , M $\Omega$
Mass of substance	mmol, mol	Power, electric power	$\mu$ W, mW, W
Concentration, ratio	% (mass percentage), wt %, vol%, ppb, ppm, $\mu$ g/ml, mg/ml, g/ml, mg/l, g/l, mmol/l, mol/l, mg/kg, pH(hydrogen-ion concentration) (Refrain from using mM, M, N where possible to avoid confusion with M[mega], N[Newton])	Frequency	Hz, kHz, MHz
Density	g/ml (liquid, gas), $\text{g}/\text{cm}^3$ (solid)	Electric charge	mC, C
Time	second (in Japanese), minute (in Japanese), hour (in Japanese), day (in Japanese) or ms, s, min, h, d	Capacitance	pF, $\mu$ F, mF, F
Angle	rad, " (second), ' (minute), $^\circ$ (degree)	Inductance	$\mu$ H, mH, H
Temperature, temperature difference	K, $^\circ\text{C}$	Radiation dose	
Work, Energy	J, cal, kcal	Radioactivity	mBq, Bq, kBq, MBq, GBq
		Absorbed dose	$\mu$ Gy, mGy, Gy, kGy, MGy
		Radiation dose	$\mu\text{C}/\text{kg}$ , mC/kg, C/kg, kC/kg, MC/kg
		Dose equivalent	$\mu\text{Sv}$ , mSv, Sv, kSv, MSv

Measurement units, not listed above, are to be used according to the common practice.

## Other symbols

- 1) Monovalent, divalent or trivalent cations are, respectively, written  $^{+}$ ,  $^{2+}$ ,  $^{3+}$  as a superscript to the right of an atomic symbol or atomic chart.
- 2) Monovalent, divalent or trivalent anions are, respectively, written  $^{-}$ ,  $^{2-}$ ,  $^{3-}$  as a superscript to the right of an atomic symbol or atomic structure.
- 3) A hyphen (-) denotes a “range”, when used between numerals.
- 4) A hyphen (-) denotes high-energy bond in a chemical structural formula.
- 5) Small capital letters, D or L, denote the configurations of sugar-groups and amino acids.
- 6) The mass number of an isotope is written as a superscript to the left of an element’s symbol (e.g.  $^{45}\text{Ca}$ ).