

Abbreviations of units

Recommended Units*				
Quantity	Unit	Unit symbol	Recommended subunits	Units not recommended
Length	meter	m	mm, μm , nm	cm, μ , u, m μ , Δ
Area	square meter	m ²	mm ² , μm^2	cm ² , μ^2
Volume	cubic meter liter	m ³ L	dm ³ , cm ³ , mm ³ , μm^3 mL, μL , nL, pL, fL	cc, ccm, μ^3 , u ³ , λ , uL, $\mu\mu\text{L}$, uuL
Mass	kilogram	kg	g, mg, μg , ng, pg	Kg, gr, γ , ug, m μg , mug, $\gamma\gamma$, $\mu\mu\text{g}$, uug
Number	dimensionless		10 ⁹ , 10 ⁶ , 10 ³ , 10 ⁻³	all other factors
Amount of substance	mole	mol	mmol, μmol , nmol	M, eq, val, g-mol, mM, meq, mval, μM , μeq , μval , nM, neq, nval
Mass concentration	kilogram per liter	kg/L	g/L, mg/L, $\mu\text{g/L}$, ng/L	g/mL, %, g%, %(w/v), g/100 mL, g/dL, o/oo, g/o, o/o(w/v), mg%, mg%(w/v), mg/100 mL, mg/dL, ppm, ppm(w/v), $\mu\text{g}\%$, $\mu\text{g}\%$ (w/v), $\mu\text{g}/100\text{ mL}$, $\mu\text{g}/\text{dL}$, $\gamma\%$, ppb, ppb(w/v), $\mu\mu\text{g}/\text{mL}$, uug/mL
Mass fraction	dimensionless		10 ⁻³ , 10 ⁻⁶ , 10 ⁻⁹ , 10 ⁻¹²	kg/kg, g/g, %, %(w/w), g/kg, o/oo, o/oo(w/w), mg/kg, ppm, ppm(w/w), $\mu\text{g}/\text{kg}$, ppb, ppb(w/w), ng/kg
Volume fraction	dimensionless		10 ⁻³ , 10 ⁻⁶	L/L, mL/mL, %, %(v/v), vol%, mL/L, o/oo, o/oo(v/v), μL , ppm, ppm(v/v)
Substance concentration	mole per liter	mol/L	mmol/L, $\mu\text{mol}/\text{L}$, nmol/L	M, eq/L, val/L, N, n, mM, meq/L, mval/L, μM , uM, $\mu\text{eq}/\text{L}$, nM, neq/L
Molality	mole per kilogram	mol/kg	mmol/kg, $\mu\text{mol}/\text{kg}$	m, mmol/g, $\mu\text{mol}/\text{mg}$, mm, μm , um
Mole fraction	dimensionless		10 ⁻³ , 10 ⁻⁶	mol/mol, %, mol%, mmol/mol, o/oo, mol o/oo, $\mu\text{mol}/\text{mol}$
Number concentration	reciprocal liter	L ⁻¹ or 1/L	10 ⁻³ L ⁻¹ , 10 ⁻³ /L; 10 ³ L ⁻¹ , 10 ⁶ L ⁻¹ , 10 ⁹ L ⁻¹ ; 10 ³ L, 10 ⁶ L, 10 ⁹ L	L/mL, mL ⁻¹ , L/ μL , L/uL, μL^{-1}
Rate of conversion	katal; Unit	kat (mol/s); U/L	nkat; mU/L, $\mu\text{U}/\text{L}$	U/dL

*International Union of Pure and Applied Chemistry/International Federation of Clinical Chemistry