

List of principal symbols

Note all variables (with the exception of Acy, Alk, LWC, and those written in capital Greek letters) are in *italics*, and constants, indices, and symbols are nonitalic (roman); some symbols are used several times.

<i>a</i>	acceleration	η	number density
<i>A</i>	area	η	dynamic viscosity
ads	adsorption (index)	θ	solar zenith angle
ap	apparent (index)	θ	surface coverage degree (0...1)
aq	aqueous (index)	<i>F</i>	flux
Acy	acidity	<i>F</i>	molar free energy (<i>Helmholtz</i> energy)
Alk	alkalinity	<i>F</i>	<i>Faraday</i> constant
α	dissociation degree	<i>f</i>	force
α	<i>Bunsen's</i> absorption coefficient	<i>f</i>	free energy (<i>Helmholtz</i> energy)
α	mass accommodation process	<i>g</i>	gaseous (index)
β	<i>Ostwald's</i> solubility	g	standard gravity (gravity of Earth)
<i>c</i>	concentration	<i>g</i>	free enthalpy (<i>Gibbs</i> energy)
<i>c</i>	speed of light	<i>G</i>	molar free enthalpy
<i>c_D</i>	drag coefficient	γ	surface tension
<i>c(m)</i>	mass concentration	γ	uptake coefficient
<i>c(n)</i>	molar concentration	Γ	transport coefficient
<i>c_N, c(N)</i>	number concentration	<i>H</i>	<i>Henry's</i> law constant
<i>C_p</i>	molar heat capacity at constant pressure	<i>H</i>	molar enthalpy
<i>C_v</i>	molar heat capacity at constant volume	<i>H₀</i>	<i>Hammett</i> function
chem	chemical conversion (index)	<i>h</i>	<i>Planck's</i> constant
coll	collision (index)	<i>h</i>	(reference) height
<i>d</i>	diameter	het	heterogeneous (index)
<i>D</i>	diffusion coefficient	<i>i</i>	specific object (index)
des	desorption (index)	<i>I</i>	radiant intensity
diff	diffusion (index)	<i>I_k</i>	solar constant
div	divergence	<i>j</i>	photolysis rate
dry	dry deposition (index)	<i>J</i>	emittance
∇	nabla operator	k	<i>Boltzmann</i> constant
<i>e</i>	ionic (or electric) charge	<i>k</i>	reaction rate constant
eff	effective (index)	<i>k_g</i>	mass transfer coefficient
el	electrical (index)	<i>K</i>	equilibrium constant
eq	equivalent (index)	<i>K_f</i>	cryoscopic constant
<i>E</i>	energy	<i>K_n</i>	<i>Knudsen</i> number
<i>E</i>	irradiance	<i>K_{sp}</i>	solubility product
<i>E</i>	electrical potential	<i>K_z</i>	turbulent vertical diffusion coefficient
<i>E_A</i>	activation energy	κ	coefficient for absorption (a) or scattering (s)
ε	emission of light	κ	<i>Karman</i> constant
ε	general physical quantity	<i>l</i>	mean free path
ε	fraction (0...1) of scavenged (washout) aerosol particles in air	<i>L</i>	radiance
		LWC	liquid water content

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λ	wavelength	σ	<i>Stefan-Boltzmann</i> constant
λ	scavenging coefficient	σ	absorption cross section
m	mass	s	solid (index)
m	molality	s	space (vector field x , y and z)
m	mass (index)	S	actinic flux
m_m	mass of molecule	S	molar entropy
M	molar mass	S	salinity
M	third body	S	sink term (as flux)
μ	chemical potential	S	solubility
ν	frequency	Sc	<i>Schmidt</i> number
ν	kinematic viscosity	sm	smelting (index)
n	number of moles (amount)	sol	dissolution / solution (index)
n	(given) number of objects	\ominus	saturation ratio
n_0	<i>Loschmidt</i> constant	T	temperature
$n(r)$	differential number size distribution	t	time
N	number (of objects or subjects)	τ	residence time
N_A	<i>Avogadro</i> constant	τ	shear stress
$N(r)$	cumulative number size distribution	τ_c	characteristic time
ox	oxidation or oxidized (index)	τ_t	turnover time
0	zero – reference concerns time or distance (index)	U	molar inner energy
\ominus	index for standard conditions	u	wind speed
π	number Pi	u^*	friction velocity
PM	particulate matter	v	velocity
p	pressure	\mathbf{v}	velocity (vector field u , v , and w)
p	particulate (index)	v_d	dry deposition velocity
Q	(molar) heat	V	volume
Q	radiant energy	V	volume (as index)
Q	source term (as flux)	V_m	molar volume
r	radius	vap	evaporation (index)
r	reaction rate	w	water (index)
r	resistance	W	(molar) work
r^2	coefficient of determination	wet	wet deposition (index)
r_a	aerodynamic resistance	x	mixing ratio
r_b	quasi-laminar resistance	x	displacement (horizontal)
r_c	surface resistance	y	displacement (horizontal)
R	rate	z	displacement (vertical)
R	precipitation amount (rainfall rate)	z	collision number
R	reaction (index)	z	number of elementary charges
R	gas constant	z_0	roughness length of surface
Re	<i>Reynolds</i> number	φ	azimuth angle
red	reduction or reduced (index)	φ	fluidity
rem	removal (index)	Φ_v	luminous flux
rev	reversible (index)	Φ	quantum yield
RH	relative humidity	Φ	radiant power
ρ	density	Ω	steeriant (solid angle)
ρ_m	mass density	ω	angular velocity
		∞	“far from” (index)