Nomenclature

a	thermal diffusivity
A	area; flow area; absorptivity (radiation)
b	coefficient of heat absorption
c	heat capacity; concentration
C	resistance coefficient
d	diameter
D	diffusion coefficient; diameter
E	radiation flux; energy
f	frequency; specific area
F	force; area; Helmholtz function ($U - T_s$)
g	acceleration of gravity
h	depth; enthalpy ($U + pV$)
H	height
i	specific intensity
I	intensity of radiation
j	intensity of mass flow
J	mass flow
k	heat transfer coefficient
K	coefficient
l	length; mixing length
L	magnetic of a molecular mean-free path; length
m	mass; mass transfer coefficient
M	molar mass; mass
N	molar flow rate; number
p	pressure
P	power
q	intensity of heat flux
Q	heat flux; quantity of heat; heat rate
r	radius; heat of phase change
R	gas constant; radius
s	specific entropy
S	entropy
t	temperature, ^{o}C ($T - 273.16$ K)
T	absolute temperature

u	specific internal energy
U	internal energy
v	specific volume
V	volume
W	work; rate (power)
x	mass void fraction
x, X, y, Y, z, Z	coordinates
z	height
Z	compressibility factor (pv/RT).

Greek symbols

α	heat transfer coefficient; angle
β	coefficient of thermal expansion $(1/v)(dv/dt)$
γ	specific heat capacity ratio; angle
δ	diffusivity; thickness
Δ	increment or difference
ε	emissivity (radiation)
η	viscosity
λ	thermal conductivity
μ	coefficient
ν	frequency (radiation); kinematic viscosity (h/r)
θ	dimensionless temperature
ρ	density
σ	surface tension
τ	time.

Dimensionless numbers

Ar	Archimedes number
Bi	Biot number
Ec	Eckert number
Eu	Euler number
Fo	Fourier number
Fr	Froude number
Gr	Grashof number
Ja	Jacob number
Kn	Knudsen number

M	Mach number
Nu	Nusselt number
Pe	Peclet number
Ph	phase change number
Pr	Prandtl number
Re	Reynolds number
St	Stanton number
Sh	Strouhal number
We	Weber number.

Subscripts

abs	absorption, absorbed
ace	acetone
act	actual
activ	activation
active	active
ad	adiabatic
adh	adhesion, adhesive
ads	adsorption
air	air
ash	ash
ash p	ash particle
att	attenuation
ave	averaged
base	base
b.c.	bundle center
boil	boiling
bub	bubble
c	cold
calc	calculated
cap	capillary
cav	cavity
c.ch	combustion chamber
coat	coating
coh	cohesion, cohesive
coke	coke
col	collapse

column	column
con	condensation, condenser, condensate
cont	contact
conv	convection, convective
cor	correlated
corr	corrugated
c.p	combustion product
cr	critical
crest	crest
cyc	cyclic
d	droplet
dep	departure
diff	diffusion
dist	disturbance
dust	dust
dyn	dynamic
e	equivalent
eff	effective
el	electric
env	environment
eq	equilibrium
ev	evaporation
expect	expectation
f	fin
fall	falling
film	film
fl	flow
free	free
furn	furnace
G	gas
gap	gap
gasol	gasoline
gr	growth
h	hot, heated
h.sph	hemisphere, hemispherical
id	ideal
in	inner
ind.f	individual fin
inj	injected

inl	inlet
int.gap	intercontact gap
kin	kinetic
knurl	knurling
L	liquid
lin	linear
loc	local
long	longitudinal
lum	luminous
m	medium
mat	material
max	maximum
microl	microlayer
min	minimum
mix	mixture, mixing
mouth	mouth
noneq	nonequilibrium
norm	normal
nucl	nucleus, nucleation
o.b	onset of boiling
opt	optimal, optimum
out	outer
outl	outlet
p	pore
pool	pool boiling
pot	potential
pr	protrusion
puls	pulsation
rad	radiation, radiative
rare	rarefaction
red	reduced
refl	reflected
rem	removed
res	residual
rough	roughness, rough
S	solid
sat	saturation
scr	screen
sm	smooth

sp	specific
spac	spacer
spec	specular
spont	spontaneous
spr	spreading
sp.r.f	specific radial force
st	strength
stag	stagnant
str	structure
subc	subcooling
superh	superheating
suppl	supplied
surf	surface
t	turbulent
tr	transverse
trans	transmitted
TSR	transient surface region
tube	tube
V	vapor
w	wall
wat	water
wet	wetted