

ประกาศตัวแปร

A	area [m^2]
C_p	specific heat capacity [$\text{J/kg}\cdot\text{K}$]
D	electric flux density (C/m^2)
E	electric field intensity [V/m]
E_{in}	the input value of electric field intensity [V/m]
f	frequency of incident wave [Hz]
g	gravitational constant [m/s^2]
H	magnetic field intensity [A/m]
h_c	heat transfer coefficient [$\text{W/m}^2\cdot\text{K}$]
h_m	mass transfer coefficient [m/s]
H_v	specific heat of vaporization [J/kg]
J	current density [A/m^2]
K	permeability [m^2]
$\dot{n}$	volumetric evaporation rate [$\text{kg/m}^3\cdot\text{s}$]
P	microwave power level [W]
p	pressure [Pa]
Q	local electromagnetic heat generation term [W/m^3]
q	heat flux [W/m^2], electric charge density [C/m^3]
R	universal gas constant [$\text{J/mol}\cdot\text{K}$]
s	water saturation [-]
T	temperature [$^{\circ}\text{C}$]
$\tan \delta$	loss tangent coefficient [-]
t	time [s]
U_{∞}	air velocity [m/s]
u, w	velocity [m/s]
MW	microwave
IR	infrared

Greek letters

ϕ	porosity [m^3/m^3]
ρ	density [kg/m^3]
α	thermal diffusivity [m^2/s]
β	coefficient of thermal expansion [$1/\text{K}$]
μ	magnetic permeability [H/m]
v	velocity of microwave [m/s]
λ_0	wavelength in free space [m]
λ_g	wavelength in waveguide [m]
λ_{mg}	wavelength in dielectric materials [m]
ω	angular frequency [rad/s]
σ	electric conductivity [S/m]
ε	complex permittivity [F/m]
ε'	permittivity or dielectric constant [-]
ε''	dielectric loss factor [-]
λ, λ_{eff}	effective thermal conductivity [$\text{W}/\text{m}\cdot\text{K}$]

Subscripts

∞	ambient condition
0	free space
a	air
c	capillary
e	effective
g	gas
in	input
ir	irreducible
n	component of normal direction
p	particle
r	relative

s	solid
t	component of tangent direction
l, w	liquid water
z	rectangular coordinates
r	spherical coordinates

