

Symbols and Abbrevation

A	Pre-exponential Factor
B	Heating Rate (°C/min)
C_p	Heat capacity(kJ/kg K)
d	Inter-planner Spacing
dia	Diameter
DSC	Differential Scanning calorimeter
DTA	Differential Thermal Analysis
DTG	Differential Thermal Gravimetry
E	Activation Energy
e	Void fraction
L	Thickness of specimen
I/I₀	Ratio of Intensity
k	Parameter
k'	Another parameter
K	Thermal conductivity
K_e	Effective thermal conductivity
K_g	Thermal conductivity of gas in pores
K_s	Thermal conductivity at zero porosity
m	Mass at any instant

m_0	Initial mass
n	Order of reaction, Parameter
P	Parameter(Ks/Kg)
R	Radius of pellet , Gas Constant (J/mol.K)
r	Radial distance
T	Temperature
T_{av}	Average temperature
T_c	Centre temperature
T_f	Furnace -wall temperature
T_m	Minimum temperature of DTA endothermic peak
T_{max}	Temperature of TG influx
T_0	Room temperature
T_r	Temperature at radial distance
T_s	Surface temperature
T_{∞}	(Furnace Temperature)
TG	Thermo Gravimetry
t	time
x	<u>Fraction of reaction</u>
x_{max}	Fraction of reaction value at maximum reaction rate
μ	$Micb_{\lambda}$
α	Thermal diffusivity
ρ	Density

*fraction reacted?
fraction still to react?*

σ	Stefan- Boltzmann constant
ε	Surface emissivity of pellet