LIST OF SYMBOLS

$\delta(.)$	Dirac delta function
∇	Gradient operator
∇^2	Laplacian operator
u_i	Components of displacement vector
e_{ij}	Components of strain tensor
$e = e_{kk}$	dilatation
σ_{ij}	Cauchy stress vector
σ_{rr}	Radial stress
$\sigma_{\varphi\varphi}$ and $\sigma_{\vartheta\vartheta}$	Circumferential stress components
T_0	Reference temperature
T	Temperature
θ	Thermodynamic temperature above reference temperature, T_0
ϕ	Conductive temperature above reference temperature, T_0
K	Thermal conductivity
K^*	Thermal conductivity rate of the material
κ	Diffusivity of the material
$\eta = \frac{1}{\kappa}$	A material constant
ρ	Mass density of the material
$c_{E/v}$	Specific heat at constant strain/volume
λ, μ	Lame's constants of material
α	Two-temperature parameter
α_t	Coefficient of linear thermal expansion
$\gamma = (3\lambda + 2\mu)\alpha_t$	A thermoelastic constant
τ_0, τ_1, τ	Thermal relaxation time parameters/phase-lags
τ_T	Phase-lag of temperature gradient

τ_q	Phase-lag of heat flux vector
τ_ν	Phase-lag of thermal displacement
δ_{ij}	Kronecker delta

Note: Throughout the thesis, the subscripted comma notations are used to denote the partial derivatives with respect to the space variables. The over-headed dots denote partial derivatives with respect to time variable, t. The bold notation is used for vector quantities. Subscripts i, j, k take the values 1, 2, 3 and summation is implied by index repetition.