LIST OF ABBREVIATIONS USED

IR : Infra red
DTA : Differential thermal analysis
TGA : Thermo gravimetric analysis
W_d : Dry weight
W_sus : Suspended weight
W_s : Saturated weight
W : Breaking load
L : Span of the bar between two supporting edges
b : Width of the sample
d : Depth of the sample at the fracture site
L : Loss of weight at time t
L\infty : Total weight loss at infinite time
k : Reaction rate constant
k_1 : Rate constant for initial stage of dehydration
k_2 : Rate constant for final stage of dehydration
E : Activation energy
E_1 : Activation energy for initial stage of dehydration
E_2 : Activation energy for final stage of dehydration
t\to m : Tetragonal to monoclinic transformation of ZrO_2
dT_c : Critical temperature difference
\alpha : Co-efficient of thermal expansion.
t-ZrO_2 : Tetragonal zirconia
m-ZrO_2 : Monoclinic zirconia
Z(m) : Monoclinic zirconia
Z(t) : Tetragonal zirconia
Z(e) : Cubic zirconia
SEM : Scanning electron microscope