LIST OF ABBREVIATIONS

\( k' \) First order rate constant
\( Q^* \) The complete partition function for the activated complex excluding that for the reaction coordinate
\( Q \) Complete partition function for the reactant
\( E \) Activation energy
\( E_0 \) Change in the zero point energy
\( A \) Pre-exponential factor
\( a \) Area under the DTA/DSC curve
\( k \) Boltzmann constant
\( h \) Planck's constant
\( R \) Gas constant
\( TG \) Thermogravimetry
\( DTA \) Differential Thermal Analysis
\( DSC \) Differential Scanning Calorimetry
\( C_s \) Heat capacities of the sample
\( C_r \) Heat capacities of the reference
\( T_s \) The sample temperature
\( T_r \) The reference temperature
\( R \) Thermal resistance
\( \Delta H \) Enthalpy change
\( \Delta S^* \) Entropy of activation
\( T \) Temperature
\( n \) Order parameter
\( T_s \) DTG peak temperature
\( T_p \)  DTA peak temperature  
\( T_i \)  Temperature of inception  
\( T_f \)  Temperature of completion  
\( \alpha \)  The fractional decomposition  
\( w_t \)  Mass loss at time \( t \)  
\( w \)  Maximum mass loss in the TG experiment for the reaction under investigation  
\( m_0 \)  Initial mass of the sample  
\( m_t \)  The mass at time, \( t \)  
\( m_\infty \)  The mass at the end of the reaction  
\( e \)  \( T - T_s \)  
\( \phi \)  Heating rate  
\( \Delta T \)  The difference in temperature, \( T_s - T_r \)  
\( r \)  Correlation coefficient  
\( F \)  Fisher constant  
\( F(\alpha, T) \)  Conversion temperature cross term  
\( \rho \)  Density  
\( N/N_0 \)  Number of moles at time \( t \) and initial  
\( f(\alpha) \)  Conversion function  
\( g(\alpha) \)  Conversion integral \( da/\alpha \)  
\( q \)  Quantity of heat  
\( q(t) \)  Rate of heat change
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