Chart

Description automatically generated

Figure 1. This is the original plot.

Chart

Description automatically generated with medium confidence

Figure 2. The straight solid lines are fitting results to the data derived from our free volume. The unfilled blue edged data points are from Pearson et al. 1987 (), Harmandaris et al (), Pearson et al. 1994 ( ) as well as Padding and Briels (). These data from the literature were obtained at a temperature of around 448-450 K. Finally, the green unfilled green edged data points are experimental data from Najm and Savvas measured at 423 K (), 433 K (), 443 K (), 453 K (), 463 K (), 473 K (), 483 K () and 493 K ().

Chart

Description automatically generated

Figure 3. The straight solid blue lines and dashed blue lines are fitting results from Equation (4). The filled red triangles are data generated from our free volume theory (cf., Equation (2)), whereas the unfilled blue triangles are derived from Pearson et al. 1987. The unfilled green squares are experimental data from Najm and Savvas.

Chart, line chart

Description automatically generated

Figure 4. Activation energy obtained from fitting various results to Equation (4).