***Table-4.4 The comparison table for the critical point values from our work with reference values***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Our Work Data** | | **Reference Data** | |  |  |
| Salts | Critical  Molality | Critical  Temperature | Critical  Molality | Critical  Temperature | Temperature Deviation | References |
| **CaCl2** | 3.936351 | 229.065 | 4.4195 | 222.978 | 2.729865727 | [4-8] |
| **Li2SO4** | 3.450383 | 250.217 | 3.519 | 250.15 | 0.02678393 | [1-3] |
| **LiCl** | 8.682483 | 192.166 | 8.217 | 198.071 | 2.981254197 | [1-3] |
| **MgSO4** | 1.841605 | 270.406 | 1.75 | 269.45 | 0.354796808 | [9,14-16] |
| **NaCl** | 4.958393 | 251.974 | 5.19 | 251.9 | 0.029376737 | [1-2] |

The above table provides us the data comparison of the critical points that we derived from our work vs the reference value. The critical point is the end point of a phase equilibrium curve in a phase diagram, and it marks the point where a substance's liquid and solid phases become indistinguishable. The critical point is important because it represents the conditions at which a substance undergoes a phase transition between the solid and liquid phases. With our model we got a small amount of deviation as mentioned in the table.