**Spontaneity – Formula Sheet:**

|  |  |
| --- | --- |
| **2nd Law of Thermodynamics:** | **Entropy Change:** |
| **Entropy:** | **Enthalpy Change:** |
| **Gibbs Free Energy Change:** | **Standard Free Energy Change:** |
| **The Reaction Quotient:** | **The Equilibrium Constant:** |
| **ln (K) vs (1/T) linear Plot:**  **Slope:** | **ln (K) vs (1/T) linear Plot:**  **Y-Intercept:** |
| **Spontaneity:** | **The Equilibrium Constant:** |

**Spontaneity Table:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |
|  |  |  |  |  |
|  |  |  |
|  |  |  |  |  |
|  |  |  |
|  |  |  |  |  |
|  |  |  |

|  |  |
| --- | --- |
| **Gibbs Free Energy Change:**  **Note:**  Convert | **Boiling Point Temperature:** |