**Le Châtelier’s Principle Practice**

**Directions**: Complete the chart below by writing either left, right, no shift in the equilibrium column, and either increase, decrease, or no change in the reactant and product column.

N2(g) + 3H2(g) 🡨🡪 2NH3(g) + 91.8 kJ

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Stress** | **Equilibrium Shift** | **[N2]** | **[H2]** | **[NH3]** |
| 1. Add N2 |  | ----------------- |  |  |
| 2. Add H2 |  |  | ---------------- |  |
| 3. Add NH3 |  |  |  | -------------- |
| 4. Remove N2 |  | ----------------- |  |  |
| 5. Remove H2 |  |  | ---------------- |  |
| 6. Remove NH3 |  |  |  | -------------- |
| 7. Increase temperature |  |  |  |  |
| 8. Decrease temperature |  |  |  |  |
| 9. Increase pressure |  |  |  |  |
| 10. Decrease pressure |  |  |  |  |

53 kJ + H2(g) + I2(g) 🡨🡪 2HI(g)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Stress** | **Equilibrium Shift** | **[H2]** | **[I2]** | **[HI]** |
| 1. Add H2 |  | ----------------- |  |  |
| 2. Add I2 |  |  | ---------------- |  |
| 3. Add HI |  |  |  | -------------- |
| 4. Remove H2 |  | ----------------- |  |  |
| 5. Remove I2 |  |  | ---------------- |  |
| 6. Remove HI |  |  |  | -------------- |
| 7. Increase temperature |  |  |  |  |
| 8. Decrease temperature |  |  |  |  |
| 9. Increase pressure |  |  |  |  |
| 10. Decrease pressure |  |  |  |  |