**EXTRA PRACTICE: Le Chatelier’s Principle Practice #3** Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Part I: Complete the following table. Write** *(left, right, or none)* **for equilibrium shift, and** *(decreases, increases, or remains same)***, for concentrations of reactants and products and for equilibrium constant (K): *52.7 kJ + 1 H2(g) + 1 I2(g) ⮀ 2 HI(g)***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Stress Type** | **Equilibrium Shift** | **[H2]** | **[I2]** | **[HI]** | **Equilibrium Constant (K)** |
| **Add H2** |  | **-----** |  |  |  |
| **Add I2** |  |  | **-----** |  |  |
| **Add HI** |  |  |  | **-----** |  |
| **Remove H2** |  | **-----** |  |  |  |
| **Remove I2** |  |  | **-----** |  |  |
| **Remove HI** |  |  |  | **-----** |  |
| **↑ Temperature** |  |  |  |  |  |
| **↓ Temperature** |  |  |  |  |  |
| **↑ Pressure** |  |  |  |  |  |
| **↓ Pressure** |  |  |  |  |  |

 **Part II: Complete the following table. Write** *(left, right, or none)* **for equilibrium shift, and** *(decreases, increases, or remains same)***, for concentrations of reactants and products and for equilibrium constant (K): *1 NaOH(s) ⮀ 1 Na+(aq) + 1 OH-(aq) + 44.3 kJ***

***(Remember that pure solids and liquids do not affect equilibrium values)***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Stress Type** | **Equilibrium Shift** | **Amount of NaOH(s)** | **[Na+]** | **[OH-]** | **Equilibrium Constant (K)** |
| **Add NaOH(s)** |  | **-----** |  |  |  |
| **Add NaCl****(Adds Na+)** |  |  | **-----** |  |  |
| **Add KOH(Adds OH-)** |  |  |  | **-----** |  |
| **Add H+(Removes OH-)** |  |  |  | **-----** |  |
| **↑ Temperature** |  |  |  |  |  |
| **↓ Temperature** |  |  |  |  |  |
| **↑ Pressure** |  |  |  |  |  |
| **↓ Pressure** |  |  |  |  |  |