

Dynamic Equilibrium in Industry

Pre-lesson assignment- textbook page 159

Make notes on the Haber Process

Use the following questions as guidance

1. Write an equation for the Haber process including state symbols. Also show the enthalpy change of reaction.
2. Explain the effect, on the equilibrium, of...
 - a. Increased pressure.
 - b. Decreased temperature.
 - c. Condensation of gaseous ammonia into liquid ammonia.
3. What role does a catalyst have in establishing an equilibrium?
4. State the optimal conditions of the reaction. Explain why these conditions are not used.
5. State the actual conditions used in the reaction. Explain how this makes the process more economical.