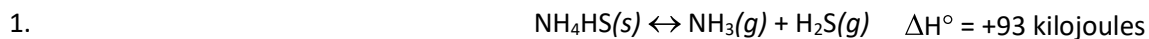


AP Chemistry Exam Review

Free Response Practice #6



The equilibrium above is established by placing solid NH_4HS in an evacuated container at 25°C . At equilibrium, some solid NH_4HS remains in the container. Predict and explain each of the following.

- The effect on the equilibrium partial pressure of NH_3 gas when additional solid NH_4HS is introduced into the container.
- The effect on the equilibrium partial pressure of NH_3 gas when additional solid H_2S is introduced into the container. (Hint: $\text{H}_2\text{S}(s)$ readily sublimates into $\text{H}_2\text{S}(g)$.)
- The effect on the mass of solid NH_4HS present and the value of the equilibrium constant when the volume of the container is decreased.
- The effect on the mass of solid NH_4HS present and the value of the equilibrium constant when the temperature is increased.