

Chemistry 12 Worksheet 2-2 LeChatelier's Principle

Unit 2 - Chemical Equilibrium

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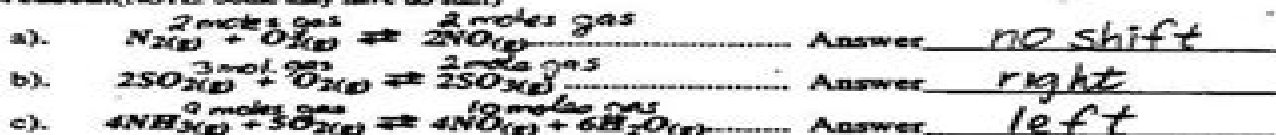
KEY

TOTAL = 70
marks.

1. In order to decide what effect a change in total pressure will have on an equilibrium system with gases, what is the first thing you should do when given the balanced equation?

- Add up the moles of gas on each side of the equation.

2. Predict which way the following equilibrium systems will shift when the total pressure is increased. (NOTE: Some may have no shift)



3. Which way will the following equilibrium shift if the total pressure on the system is decreased?



It will shift right (more moles) to counteract the decrease in pressure.

Answer right

4. Explain why a flask filled with $\text{NO}_2(\text{g})$ and $\text{N}_2\text{O}_4(\text{g})$ will get darker when heated. Use the equation:



- heating will cause the equil^m to shift right.
This will produce more NO_2 which is dark brown. Hence the colour will get darker.

5. State Le Chatelier's Principle.

When a stress is applied to a system at equilibrium, the equil^m will shift (left or right) so as to counteract the imposed stress.

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