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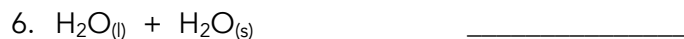
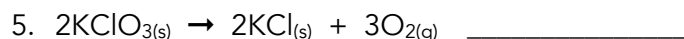
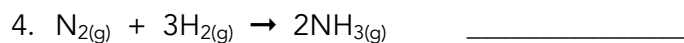
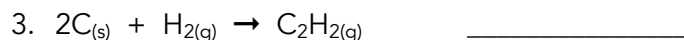
Entropy

Homework Unit 9 - Topic 3

Entropy.... Reigns SUPREME!

Nature will always tend towards disorder. In chemistry we describe disorder using the term entropy. The more disorder, the more entropy. Nature loves it!

Identify whether the following result in an increase or decrease in entropy:



10. Which process is accompanied by a decrease in entropy?

- (1) boiling of water
- (2) condensing of water vapor
- (3) subliming of iodine
- (4) melting of ice

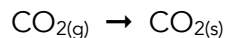
11. Which phase change represents a decrease in entropy?

- (1) solid to liquid
- (2) gas to liquid
- (3) liquid to gas
- (4) solid to gas

12. Which sample has the lowest entropy?

- (1) 1 mole of $KNO_{3(l)}$
- (2) 1 mole of $KNO_{3(s)}$
- (3) 1 mole of $H_2O_{(l)}$
- (4) 1 mole of $H_2O_{(g)}$

13. Given the change of phase:



As $CO_{2(g)}$ changes to $CO_{2(s)}$, the entropy of the system

- (1) decreases
- (2) increases
- (3) remains the same