

Name: Key

Date:

Chemistry 12: Equilibrium

Lesson 1 – Dynamic Equilibrium

A reversible reaction is said to be at equilibrium when the rate of the forward reaction is equal to the rate of the reverse reaction.

Equilibrium reactions must take place in a closed system. Why? you may lose the products if they are gas.

Dynamic Equilibrium is when only microscopic changes occur within the system. These are changes that you cannot see, they happen on a molecular level.

This can be compared to static equilibrium, in which NO changes are occurring.

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At Equilibrium:

Rate of consumption of reactants = rate of production of reactants ~~products~~

[reactants] differs from [products] (there may be the odd case they are the same)

[reactants] is now constant in time and [products] is constant in time

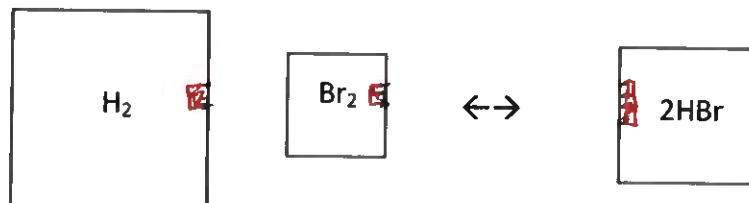
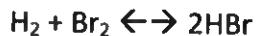
Forward and reverse rates are constant

A system not at equilibrium will tend to move toward a position of equilibrium.

NOTE:

While the products and reactants react in their stoichiometric ratios, the 'stock pile' of these concentrations do not have to be present in their stoichiometric ratios.

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