OBJCTIVES OF CURRENT PAPER

CHE201 - Physical Chemistry

Final-Term File 2024 By

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- When delta G is negative the forward reaction is ...spontaneous
- Throttling is an example of.. irreversible process
- Van DER walls in..1873 modified the ideal gas equation
- Attractive forces between gas particles... attractive effect
- The amount of heat required to increase the temperature of one mole of a substance by one degree ..molar heat capacity
- If k>1 it shows ..products
- The interaction between the solute particles and the solvent molecules is called solvation
- Shine a light beam through colloids the pathway of the light is visible from any angle. This scattering of light is called the ___Tyndall effect
- The number of particles involved in an elementary step is called___. (Molecularity)
- Most hydroxide salts are only slightly soluble, except those of... (sodium and potassium)
- Once started, chain reactions continue until the.... (reactants are exhausted)
- continues flow is commonly used for determining initial rates and___inhibition values
- Concentrated form of ethanol, an azeotrope, is around 95.6 ethanol by weight
- The fractionating column is packed with glass beads to give maximum surface area for vapor to condense on.
- The fan in a 'frost free' home freezer moves air around inside the freezer to (Sublimate)
- Reaction of chlorine with methane can not oocur in dark
- Spectrophotometry wly topic m s b 3 s 4 McQ thy
- Values given to the thermodynamic property of an equilibrium state of thermodynamic system is called State function.
- Water is universal solvent due to polarity.
- Ideal gas equation is…Pv = nRT
- A key property in thermodynamic is Temperature.
- The quantitative study of heat changes is Thermochemistry.
- If we bring any change at equilibrium the system compensate for change this is called Le Chateliers Principle.
- The system in which heat change is negative is endothermic.
- Freezing point is a cogitative property.
- The amount of heat needed to increase the temperature of one gram of substance by degree is specific heat capacity.
- Two systems that are each found to be in thermal equilibrium with a third system will be found to be in thermal equilibrium with each other. This generalization from experience is the Zeroth law of thermodynamics
- Entropy of perfect crystalline substance is zero at absolute zero.
- A large number of experiments have determined that 4 variables are sufficient to define the physical condition of a gas.
- When ΔG is negative, the forward reaction is spontaneous.
- Ideal gas obeys Roults law.
- Oxidation of gold is example of (non-spontanious)
- Gibbs free energy is a.. (state function)

- Mechanical Equilibrium: No unbalanced forces act on or within the system; hence the system undergoes no acceleration, and there is no turbulence within the system.
- The macroscopic part of the universe under study in thermodynamics is called the System__ Thermodynamic
- Charles' law is obeyed most accurately in the limit of zero pressure
- van der Waals in (1873) modified the ideal-gas equation
- The change in enthalpy is then equal to the heat transferred at constant (pressure)
- Entropy of a perfect crystalline substance is (zero) at absolute zero
- Throttling is example of (irreversible process)
- A large number of experiment have determined that__4__variables are sufficient to define the physical condition of a gas?
- Non-zero volumes of gas particles (repulsive effect)
- Attractive forces between gas particles (attractive effect)
- The amount of heat required to increase the temperature of one mole of a substance by one degree___Molar heat capacity
- if k>1 it shows..... Products ...
- Quantative study of heat change is called thermochemistry
- aik water ki koi value pochi thi ans *41*tha
- Principle which states that any change to a system at equilibrium will adjust to compensate for that change____Le Châtelier's
- Manfred Eigen (Germany) pioneered when, in the early 1960's, he measured the rate constant of what was then the---- reaction ever observed.___Fastest
- water is universal solvent due to ? polarity
- oxidation of gold is ? non spontaneous process
- carbonate and phasphate are insoluble
- The interactions between the solute particles and the solvent molecules is called___Solvation
- Shine a light beam through colloids the pathway of the light is visible from any angle. This scattering of light is called the ___Tyndall effect
- The amount of moles of solute per kilogram of the solvent____Molarity
- Activity is more accurate in more ---- solutions___concentrated
- Determines the real chemical potential for a real solution rather than an ideal__Activity
- If delta G is positive then the reaction will be....(non_spontaneous)
- If K< 1 then it favors ..... (reactants)
- Thermodynamics studies the relationships between the ____of a system.... (Macroscopic properties)
- The interactions between the solute particles and the solvent molecules is called_____. (Solvation)
- Continuous Flow is a type of assay used for determining initial value and_____. (Inhibition values)
- A first-order reaction is a reaction that proceeds at a rate that depends on_____(One reactant) concentration
- Boiling point of Ethanol is _____. (78.5°C)
- The number of particles involved in an elementary step is called_____. (Molecularity)
- The fan in a 'frost free' home freezer moves air around inside the freezer to____. (Sublimate)
- (Fog and mist) are examples of colloidal liquid in a gas.
- Most hydroxide salts are only slightly soluble, except those of... (sodium and potassium)
- ethanol will start to boil at 78.4 °C
- zero order reactions/kinetics, the rate of a reaction does not depend on the ...(substrate concentration)
- The activation energy is the threshold energy that the reactant(s) ...(must acquire before reaching the transition state)
- Once started, chain reactions continue until the.... (reactants are exhausted)
- mass/volume percentage are...(relative concentration unit)
- The epitome of intermolecular forces in solution is the miracle of solubility, because when a matter precipitates it no longer interacts with the .....(solvent.)

- The macroscopic part of the universe under study in thermodynamics is called the (System)
- from the stoichiometry of the reaction equation the order should not determined
- The number of particles involved in an elementary step is called_Molecularity
- In zero order reactions/kinetics, the rate of a reaction does not depend on the substrate concentration
- Freezing point is _ cogitative_ property
- The amount of moles of solute per liter of the solution is__Molarity
- The formation of double stranded DNA from two complementary strands, can be described using__2nd order kinetics
- continues flow is commonly used for determining initial rates and___inhibition values
- The rate at which the reagents are first brought together is_initial rate of reaction
- Concentrated form of ethanol, an azeotrope, is around 95.6 ethanol by weight
- Boiling point of pure ethanol is 78.5
- Measurement of relative amount of products and reactant present at a given time is called? Reaction kinetics
- Any change to a system at equilibrium will adjust to compensate for that change is? Le Chatelier's principle
- Water is a good solvent due to? Its ability to dissolve a wide range of substances
- The interaction between solute particle and solvent molecule is called? Solvation
- In zero order reaction the rate of reaction does not depend? On the concentration of the reactants
- Freezing point is a ……...property ? heat
- A key property in thermodynamics is...….? temperature
- Two thermodynamics system in equilibrium have same ……..? Temperature
- Thermodynamics studies the relationships between the __of a system. Macroscopic properties
- For a system in mechanical equilibrium, the pressure throughout the system is. Uniform
- A measurement of the relative amounts of products and reactants present in a reaction at a given time is called.__Reaction quotient
- The interactions between the solute particles and the solvent molecules is called_. Solvation
- Continuous Flow is a type of assay used for determining initial value and_. Inhibition values
- The number of particles involved in an elementary step is called_. Molecularity
- The fan in a 'frost free' home freezer moves air around inside the freezer to_. Sublimate
- A first-order reaction is a reaction that proceeds at a rate that depends on. One reactant concentration
- The rate at which the reagents are first bought together is called___. initial rate
- The relaxation method is used to determine the rate of reaction of___.return to equilibrium.
- A spectometer us a device is used to___. the amount of photons (the intensity of light)
- A first order reaction is s reaction depends on___. linearly on only one reactant concentration.
- Once started chain reaction continue until the__.
- reactants are exhausted
- The rate constant are calculated by integrated rate laws from initial concentrate and__. time of measurement.
- length of half life will be constant, independent of concentration.
- Another way to see it is that the half life of a first order reaction is independent of its initial concentration.
- for 1st and 2nnd order reaction the graph will be___decrease to zero with time
- The slow step is mechanisms determines the__. rate of a reaction
- The number of particles involved in an elementary steps is called__.molecularity
- if ΔG is negative the reaction will be__.spontaneous
- The freezing point of solution is directly proportional to the___of the solute. molality
- In____van der walls modified the ideal Gass.1873
- __are liquid or solid with a Gass dispersed into them. Foams

- Continuous Flow is a type of assay used for determining initial value and_. Inhibition values
- A measurement of the relative amounts of products and
- reactants present in a reaction at a given time is called__Reaction quotient
- Thermodynamics studies the relationships between the __of a system. Macroscopic properties
- Concentrated form of ethanol, an azeotrope, is around 95.6 ethanol by weight.
- continues flow is commonly used for determining initial rates and___inhibition values.
- The fan in a 'frost free' home freezer moves air around inside the freezer to_. Sublimate
- Half life of 1st order --------0.693
- The fractionating column is packed with glass beads to give maximum surface area for vapor to condense on.
- Freezing points is a___ property. Colligative
- Per liter walay ka Molarity
- Per kilogram walay ka Molality
- Ideal gas equation is…Pv = nRT
- key property in thermodynamic is (Temperature)
- Gibbs free energy is a.. (state function)
- van der Waals in (1873)
- The interactions between the solute particles and the solvent molecules is called (Solvation)
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- Most hydroxide salts are only slightly soluble, except those of (sodium and potassium)
- activation energy is the threshold energy that the reactant.(must acquire before reaching the transition state)
- Once started, chain reactions continue until the(reactants are exhausted)
- The vapor density of CxHx is 39.The value of X is....?3
- Highest hydrogen ion concentration....? lowest pH value.
- if ΔH solution=0 then the solution are called.....? ideal solution
- in.....van der wals modified the ideal Gass. 1873
- Heat mixture containing 2 or more substances (e.g., water and ethanol solution)_fractional Distilation Ethanol will start to boil at 78.4 °C (351.6 K) and water at 100 °C (212 °F)).
- If K>1 then equilibrium favors products
- If K<1 then equilibrium favors the reactants
- Most chemical chain reactions have very reactive intermediates called free radicals.
- The intermediate that maintains the chain reaction is called a chain carrier.
- All nitrates (NO4)-, most sulfates, (SO4)2", and most chlorides, Cl-, are soluble.
- Most hydroxides, (OH)-,carbonates, (CO3)2" sulfides, S2- and phosphates, (PO4)3-, are insoluble
- An example of ideal solutions would be benzene and toluene.
- A maximum-boiling point azeotrope is said to be a negative azeotrope
- The interaction between solute particles and solvent ---------- Solvation
- The fractionating column is packed with glass beads (or something similar) to give the maximum possible surface area for vapor to condense on.
- Any change to a system at equilibrium will adjust to compensate for that change is? Le Châtelier's principle
- Water is a good solvent due to? Polarity
- In zero order reaction the rate of reaction does not depend? Substrate concentration.
- Total amount of energy of non-spontaneous reaction is... is a loss and negative net result
- When volume is increased the change occurs in the direction that produces more moles of gas.
- The amount of moles of solute per liter of the solution__ Molarity

- Solute separates into ions or molecules, and each ion or molecule is surrounded by molecules of solvent... dissolution
- Most hydroxide salts are only slightly soluble, except those of sodium and potassium.
- Most sulfide, carbonate and phosphate salts are only slightly soluble.
- Spectrophotometry is one of the most useful methods that use to measure how much a chemical substance absorbs light by measuring the intensity of light
- When delta G is negative the forward reaction is ...spontaneous
- Throttling is an example of.. irreversible process
- Van DER walls in..1873 modified the ideal gas equation
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