

Which of the method separate both ionic and non-ionic impurities, a. reverse osmosis b. electrodialysis c. zeolite process d. ion exchange process	A
Ion selective membranes work on the principle of , a. migration of ions from high to low concentration b. migration of ion from high to low concentration c. exchange of ions in membrane with solution d. adsorption of ions in solution on membrane	C
Glass electrode contains solution of a. 1 N HCl b. saturated KCl c. 0.1 N HCl d. 1 M KCl	C
Potential of any electrode can be measured when it is coupled with..... a. indicator electrode b. positive electrode c. reference electrode d. all of these	C
Types of reference electrodes are..... a. primary and secondary b. natural and synthetic c. addition and condensation d. acidic and alkaline	A
The most widely used reference electrode is..... a. glass electrode b. calomel electrode c. SHE d. none of above	A

<p>In electrochemical cells, generally calomel electrodes are used in which concentration of KCl solution is</p> <p>a.concentration is not taken into consideration b.saturated c.0.1 N d.0.001 N</p>	C
<p>Calomel electrode consist of a</p> <p>a. narrow glass tube b. narrow silver tube c. broad silver tube d. capillary</p>	A
<p>At the bottom of calomel electrode, a layer is of.....</p> <p>a. Ag b. Ag+Au c. Glass wool d. Hg</p>	D
<p>Calomel electrode consist of</p> <p>a. Hg, paste of Hg_2Cl_2 and Hg,sat. KCl solution b. Ag, glass wool and NaCl solution c. Ag,AgCl paste, saturated KCl solution d. all of these</p>	A
<p>Calomel elctrode should not be used above.....</p> <p>a. 100 c b. 125 c c. 250 c d.50 c</p> <p>for.....</p>	D
<p>In glass electrode, glass membrane is for</p> <p>a. zeolite treatment b. ion-exchange process c. de-mineralization process d. water purification process</p> <p>selective electrode is</p>	B
<p>Example of ion-</p> <p>a. glass ISE b. calcium ISE c. ammonium ISE d. all of above</p>	D

<p>To determine calcium level in skim milk.....</p> <p>a. ion-selective electrode is used</p> <p>b. standard hydrogen electrode is used</p> <p>c. calomel electrode is used</p> <p>d. all the above can be used</p>	A
<p>The site of oxidation in an electrochemical cell is</p> <p>a) anode</p> <p>b) cathode</p> <p>c) electrode</p> <p>d) salt bridge</p>	A
<p>Calomel is made by using</p> <p>a) Hg with mercurous chloride</p> <p>b) Hg with mercuric chloride</p> <p>c) Zinc with mercurous chloride</p> <p>d) Ca with mercurous chloride</p>	A
<p>Generally in calomel electrode_____solution KCL is used</p> <p>a) 1 N</p> <p>b) 0.001 N</p> <p>c) 0.01 N</p> <p>d) Saturated</p>	D
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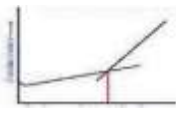
<p>Generally in calomel electrode _____ solution KCL is used</p> <p>a) 1 N b) 0.001 N c) 001 N d) Saturated</p>	D
<p>To determine calcium level in skim milk.....</p> <p>a. ion-selective electrode is used b. standard hydrogen electrode is used c. calomel electrode is used d. all the above can be used</p>	A
<p>The site of oxidation in an electrochemical cell is</p> <p>a) anode b) cathode c) electrode d) salt bridge</p>	A
<p>Calomel is made by using</p> <p>a) Hg with mercurous chloride b) Hg with mercuric chloride c) Zinc with mercurous chloride d) Ca with mercurous chloride</p>	A
<p>Unit for measurement of conductance</p> <p>a) Ohm b) mho c) mV d) eV</p>	B
<p>Ratio of specific conductance to that of conductance is called</p> <p>a) Specific resistance b) Molar Conductance c) Equivalent conductance d) Cell constant</p>	D
<p>On dilution, the specific conductance</p> <p>a) Increases b) Remains same c) Decreases d) None of the mentioned</p>	C

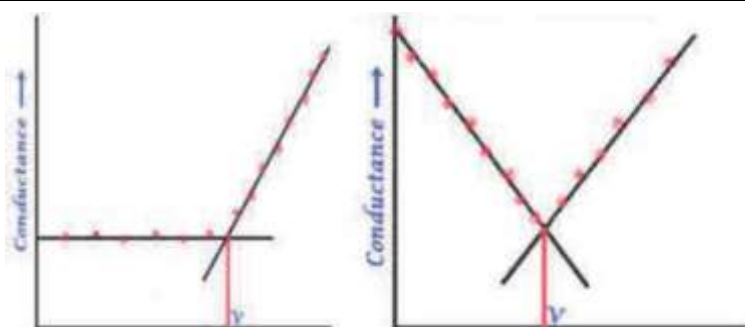
<p>In the conductometric strong base weak acid titration, the conductance changes as</p> <ol style="list-style-type: none"> Increases very slowly upto end point and then rapidly Decreases upto end point and then increases Remains constant upto end point and then increases Increases upto end point and then decreases 	A
<p>In the case of conductometric titration of HCl Vs NaOH, before the end point at any stage conductance of solution changes due to _ ions with progressive addition of NaOH.</p> <ol style="list-style-type: none"> OH^- , increases Cl^- , decreases H^+ , increases H^+ , decreases 	D
<p>A few drop of HCl added to base leads to formation of</p> <ol style="list-style-type: none"> Completely ionized water molecules Nearly unionized NH_4OH Completely ionized NH_4OH Nearly unionized water molecules 	A
<p>pH meter uses an equation called to convert mV signal to pH</p> <ol style="list-style-type: none"> Newman Nernst Faraday Newton 	B
<p>The cell constant is defined as the ratio of</p> <ol style="list-style-type: none"> Area of either electrodes to the length between the electrodes Length between the electrodes to the area of either electrodes Length between the electrodes to the volume of either electrode Resistivity to conductivity 	B
<p>As H^+ ion concentration decreases, EMF of the cell</p> <ol style="list-style-type: none"> Decreases Increases Remains zero Remains constant 	A
<p>Electrolysis involves _____ at anode and at cathode.</p> <ol style="list-style-type: none"> Deposition and reduction Dissolution and oxidation Reduction and oxidation Oxidation and reduction 	D

<p>Example of acidic buffer is</p> <p>a) $\text{NH}_4\text{OH} + \text{NH}_4\text{Cl}$ b) $\text{NH}_4\text{OH} + \text{CH}_3\text{COOH}$ c) $\text{CH}_3\text{COOH} + \text{CH}_3\text{COONa}$ d) $\text{NH}_4\text{Cl} + \text{CH}_3\text{COOH}$</p>	D
<p>Example of basic buffer is</p> <p>a) $\text{NH}_4\text{OH} + \text{NH}_4\text{Cl}$ b) $\text{NH}_4\text{OH} + \text{CH}_3\text{COOH}$ c) $\text{CH}_3\text{COOH} + \text{CH}_3\text{COONa}$ d) $\text{NH}_4\text{Cl} + \text{CH}_3\text{COOH}$</p>	A
<p>Glass electrode is used as an indicator electrode in</p> <p>a) Potentiometry, b) Conductometry c) pHmetry d) None above</p>	C
<p>In the buffer solution of NH_4OH & NH_4Cl. NH_4 ions from NH_4Cl</p> <p>a) Accelerates the ionization of NH_4Cl, b) Suppress the ionization of NH_4Cl, c) Suppress the ionization of NH_4OH d) Accelerates the ionization of NH_4OH</p>	C
<p>A pair of electrodes used for measurement of conductometry</p> <p>a) Platinum b) Silver c) Mercury d) Graphite.</p>	A
<p>All the three types of (equivalent conductance, conductance and molar conductance)</p> <p>a) Increase with increase in temperature b) Increase with decrease in temperature c) Decrease with increase in temperature d) Constant with Increase in temperature</p>	A
<p>An electrolyte is one_</p> <p>a) Forms complex ions in solution. b) Gives ions only when electricity is passed. c) Possess ions even in solid state. d) Gives ions when dissolved in suitable solvent</p>	C
<p>Cell constant is given by the factor</p> <p>a) a/l b) $a \cdot l$ c) l/a d) $a^2 \cdot l$</p>	C

<p>Conductivity of a solution is directly proportional to</p> <p>a) Dilution b) Number of Ions c) Current density d) Volume of solution</p>	B
<p>Equivalent, molar and specific conductance</p> <p>a) Decreases with increase in temperature. b) Increases with increase in temperature. c) Increases with decrease in temperature. d) Remains constant with increase in temperature</p>	B
<p>Stronger the Oxidizing agent</p> <p>a) Greater is the reduction potential. b) Greater is the oxidation potential. c) Smaller is the reduction potential. d) Smaller is the oxidation potential.</p>	A
<p>The cell constant is determined with the help of a conductivity cell filled with .</p> <p>a) N/10 KCl solution b) N/20 KCl solution c) N/30 KCl solution d) N/50 KCl solution</p>	D
<p>The conducting power of all ions produced by one mole of an electrolyte in 1 dm³ of water is known as</p> <p>a) Conductance b) Equivalent conductivity c) Molar Conductance d) None above</p>	C
<p>The equivalent conductance of 1N solution of an electrolyte is nearly</p> <p>a) Same as its specific conductance b) 10³ times the specific conductance. c) 10⁻³ times the specific conductance. d) 10⁶ times the specific conductance.</p>	B
<p>The relationship between equivalent and specific conductance is</p> <p>a) $\Lambda = 1000k/C$ b) $k = 100\Lambda/C$ c) $\Lambda = 100k/C$ d) $k = 100\Lambda/C$</p>	A

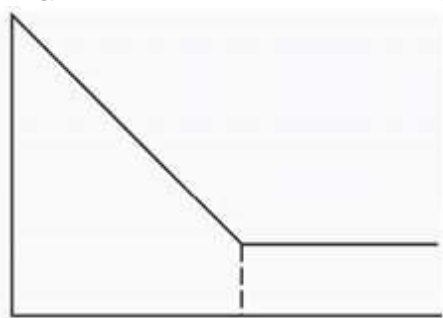
<p>The specific conductance of a solution falls on dilution because</p> <p>a) Ions present per centimeter cube of the solution becomes less</p> <p>b) Ions present per centimeter cube of the solution becomes more</p> <p>C) Volume of the solution increases</p> <p>d) None of these</p>	A
<p>Unit for measurement of conductance</p> <p>a) Ohm^{-1}</p> <p>b) mho</p> <p>c) mV</p> <p>d) eV</p>	B
<p>Unit for molar conductivity</p> <p>a) $\text{W cm}^2 \text{cm}^{-1}$</p> <p>b) $\text{W}^{-1} \text{cm}^2 \text{mol}$</p> <p>c) $\text{W}^{-1} \text{cm}^2 \text{mol}^{-1}$</p> <p>d) $\text{W}^{-1} \text{cm}^{-2} \text{mol}^{-1}$</p>	C
<p>Unit of specific conductance is</p> <p>a) W</p> <p>b) Mho</p> <p>c) W cm</p> <p>d) $\text{W}^{-1} \text{cm}^{-1}$</p>	D
<p>Advantage of conductometric titration is</p> <p>a) Can be used for coloured solution</p> <p>b) Can be used for weak acid-weak base titration</p> <p>C) Can be used for mixtures of adds.</p> <p>d) All of these.</p>	D
<p>Find out the pH of the 0.1 N NaOH</p> <p>a) $\text{pH} = 1$</p> <p>b) $\text{pH} = 0.1$</p> <p>c) $\text{pH} = 13$</p> <p>d) $\text{pH} = 14$</p>	C
<p>Find out the pH of the 0.1 N HCl</p> <p>a) $\text{pH} = 1$</p> <p>b) $\text{pH} = 0.1$</p> <p>c) $\text{pH} = 13$</p> <p>d) $\text{pH} = 14$</p>	A
<p>50 ml HCl solution is titrated against 0.02 N NaOH solution using pH-meter. The equivalence point from graph is 25 ml, what is the pH of solution at its neutralization point.</p>	B

a) pH =1 b) pH=2 c) pH=13 d) pH=14	
 <p>Identify the graph below, which was obtained in acid base titration, using conductometry</p> a) Strong acid Weak base titration – b) Weak acid Weak base titration – c) Strong acid Strong base titration – d) Weak acid Strong base titration –	D
The resistance of a conductor of uniform cross section is a) Directly proportional to length b) Directly proportional to cross section c) Inversely proportional to area of cross section d) Directly proportional to current	A
The resistance of a conductor of unit length is a) Directly proportional to length b) Directly proportional to cross section c) Inversely proportional to area of cross section Directly proportional to current d) None of these.	C
The specific conductance of a solution falls on dilution as a) Ions present per centimeter cube of the solution becomes less. b) Ions present per centimeter cube of the becomes more. c) Volume of solution increases. d) None of these.	A
Nature of conductometric titration curve for titration of CH_3COOH Vs NH_4OH is	d

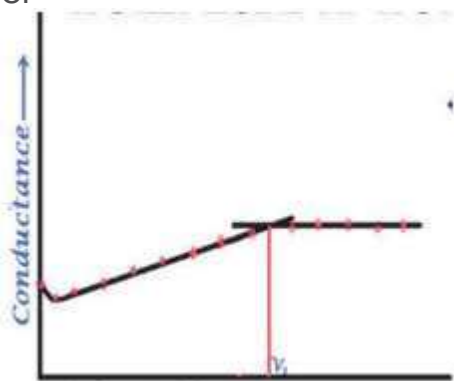


a.

b.



c.



d.

In graph of $\Delta pH/\Delta V$ vs volume of NaOH, how to interpret the equivalence point?

- a) minima in graph
- b) maxima in graph
- c) intersection of two lines
- d) sudden increase in pH

B

pH of drinking water (for health perspectives) should be a) 3-5

- b) 4-6
- c) 5.5-7.5
- d) 6.5-8.5

D

<p>Water in contact with air is</p> <p>a) acidic b) alkaline c) neutral d) none of these</p>	A
<p>Concentration of battery acid must have pH</p> <p>a) 0 b) 1 c) 2.4 d) 2.5</p>	A
<p>An aqueous solution has a hydrogen ion concentration of 0.0015 M. Calculate the pH of this solution.</p> <p>a) 2.824 pH b) 11.18 pH c) 2.292 pH d) 1.824 pH</p>	A
<p>In laboratory, while performing practical, concentration of solution should be</p> <p>a) minimum b) maximum c) moderate d) None of these</p>	A
<p>How to correlate EMF and pH of the solution?</p> <p>a) $E = E^\circ + 0.059 \text{ pH}$ b) $E = E^\circ + 0.0059 \text{ pH}$ c) $E = E^\circ + 2.303 \text{ pH}$ d) $E = E^\circ + 0.59 \text{ pH}$</p>	A