Home Work

Q-1- (0.2) g of saline solution consisting of mixing (Silver chloride and potassium nitrate) was passed through a cationic exchanger (H^+ _ Form) and the collected solution from the column was calibrated against the sodium hydroxide base ,If the flow volume of the burette was(20) ml ,

calculate :

1 . The weight of Silver chloride in the sample ?

2. The weight of potassium nitrate in the sample ?

3. The Normality concentration of the sodium hydroxide ?

4. PPM for potassium nitrate in the solution (5ml) ?

5. Write the equations for this question ?

6. PH for the come down solution from the column ?

If you know the percentage of potassium chloride in the sample is   80 %

And the Atomic weight for (K = 39 , N =14 , O = 16 , Cl = 35.5 , Ag = 108 ,Na = 23

Q-2- (0.2) g of saline solution consisting of mixing (sodium chloride and sodium nitrate) was passed through a Anionic exchanger (OH⁻ _ Form) and the collected solution from the column was calibrated against the Hydrochloric acid ,If the flow volume of the burette was (20) ml ,

calculate :

1 . The weight of sodium chloride in the sample ?

2. The weight of sodium nitrate in the sample ?

3. The Normality concentration of the Hydrochloric acid ?

4. PPM for sodium nitrate in the solution (5ml) ?

5. Write the equations for this question ?

6. PH for the come down solution from the column ?

If you know the percentage of potassium chloride in the sample is   80 %

And the Atomic weight for (Na = 23 , N =14 , O = 16 , Cl = 35.5)

Q-3- (0.5) g of the potassium chloride solution was transferred to the Anionic exchanger (OH⁻ _Form), if The volume of the come down solution from the Anionic exchanger was (10)ml ,which was calibrated with the Nitric acid, The volum of the Nitric acid was (12) ml,

Calculate :

1-   The concentration of Nitric acid in ppm

2-   The POH of the base that come down from Ion exchange column

3-   Write the equation for this question

If you know the atomic weight for   (K = 39 , Cl = 35.5 , N = 14 ,O =16 , H=1)

GOOD LUCK