**Reviewing electrolysis**

**Objective:** To review the main ideas covered in electrolysis

**Key words:** Electrolysis, Electrode, Electrolyte, Anode, Cathode, Reduction, Oxidation, Half equation

**Activity**

Follow the links given below and answer the questions.

1. Follow these links in order. Can you explain the differences observed?

<http://www.absorblearning.com/media/attachment.action?quick=u1&att=2152>

<http://www.absorblearning.com/media/item.action?quick=u2>

<http://www.absorblearning.com/media/attachment.action?quick=u3&att=2156>

1. What is an electrolyte? Look at the animation and then write down what this tells you about electrolytes

<http://www.absorblearning.com/media/attachment.action?quick=u4&att=2158>

1. Look at the following video clip showing the electrolysis of Lead Bromide. Explain what you observe.

<http://www.absorblearning.com/media/attachment.action?quick=1td&att=4111>

1. Look at the following clip shows the electrolysis of copper chloride. Explain what you observe in the clip

<http://www.absorblearning.com/media/attachment.action?quick=1te&att=4113>

1. Look at the animation of the electrolysis of aqueous potassium nitrate. What do you observe at the anode and cathode? Write half equations for the reactions. Explain the volume differences in the gases formed.

<http://www.absorblearning.com/media/attachment.action?quick=ud&att=2176>

1. Look at the animation of the electrolysis of brine. Explain what you observe.

<http://www.absorblearning.com/media/attachment.action?quick=ug&att=2182>



1. Look at the following showing the purification of copper. What is the anode and what is the cathode? Explain the process include half equations.. The diagram given can help in your explanation

<http://www.absorblearning.com/media/attachment.action?quick=uk&att=2190>

<http://www.absorblearning.com/media/attachment.action?quick=1tf&att=4115>

1. Look at the electroplating of nickel in the link below. Draw a similar diagram to show the experiment you did electroplating a nail with copper. Explain what happens in the process. Include half equations.

<http://www.absorblearning.com/media/attachment.action?quick=uj&att=2188>

1. Look at electrolysis of aluminium link below. Follow through all the parts. Have you included all the parts in your account you did foe homework/in class?

<http://www.absorblearning.com/media/attachment.action?quick=u8&att=2166>

1. Look at the table on the next page. Fill in the expected products of electrolysis and write the half equations for the reactions at the electrodes

**Electrolysis of solutions challenge**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Electrolyte** | **Product at anode****(+)** | **Half equation anode**  | **Product at Cathode (-)** | **Half equation at Cathode** | **Remaining in solution**  |
| Silver nitrate solution AgNO3(aq) |  |  |  |  |  |
| Dilute Potassium iodide solution KI(aq) |  |  |  |  |  |
| Concentrated sodium bromide solutionNaBr(aq) |  |  |  |  |  |
| Concentrated magnesium chloride solution MgCl2(aq) |  |  |  |  |  |
| Concentrated sodium sulfate solution Na2SO4(aq) |  |  |  |  |  |
| Dilute copper chloride solution CuCl2(aq) |  |  |  |  |  |