

Chem!stry

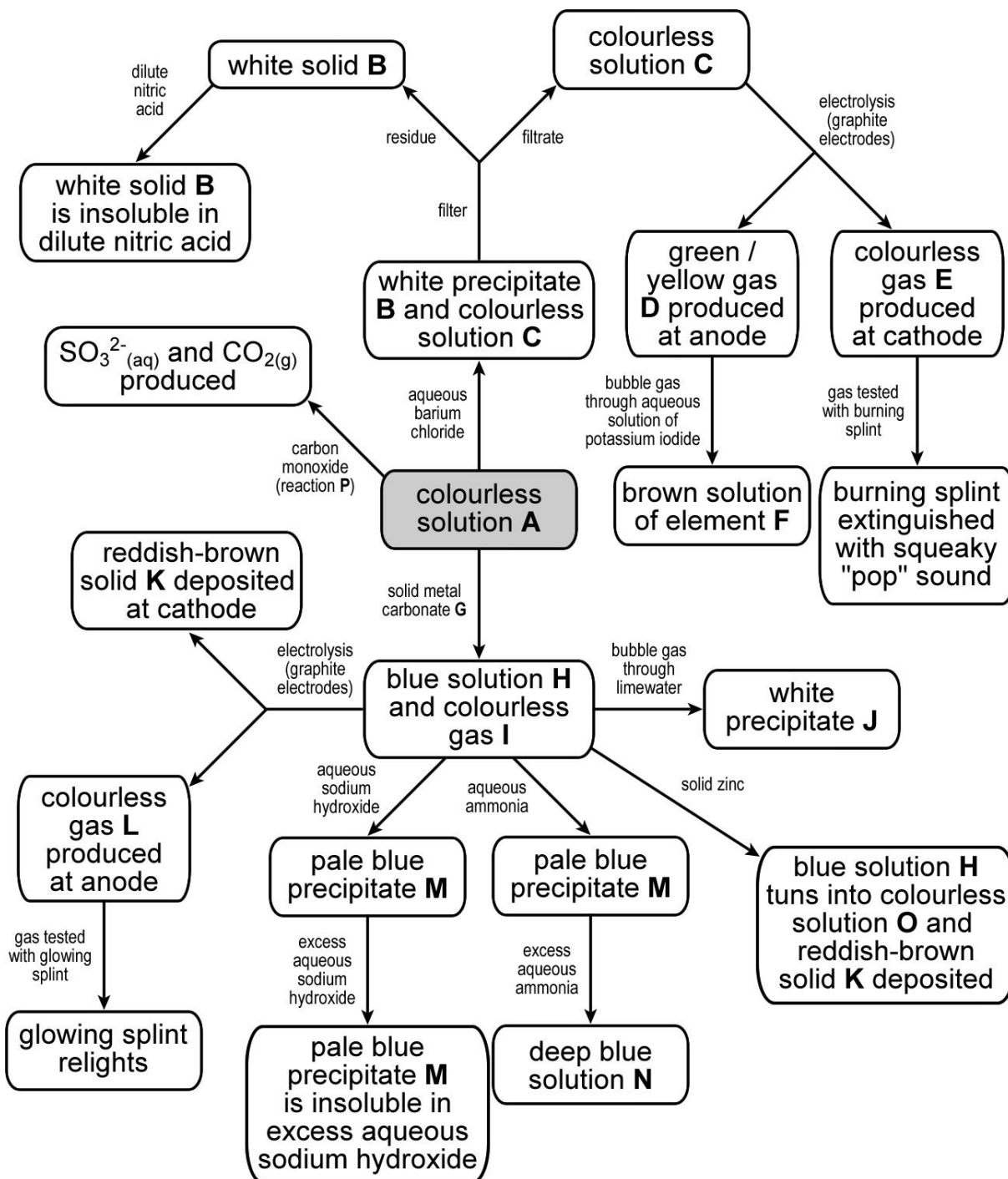
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Revision of Qualitative Analysis, Redox and Electrochemistry #1

Study the reaction sequence below, and then answer the questions on page 2.



Question 1:

Using chemical formulae, identify all of the chemicals **A** to **O**:

A is	B is	C is
D is	E is	F is
G is	H is	I is
J is	K is	L is
M is	N is	O is

Question 2:

Write ionic half-equations to describe the electrolysis of colourless solution **C**:

Anode:

Cathode:

Question 3:

Write ionic half-equations to describe the electrolysis of blue solution **H**:

Anode:

Cathode:

Question 4:

Write the ionic equation for the reaction between blue solution **H** and solid zinc:

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Question 5:

a) Write the balanced chemical equation that describes the reaction between green / yellow gas **D** and aqueous potassium iodide:

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b) Write the ionic half-equation that describes what happens to the green / yellow gas **D**:

.....

c) Write the ionic half-equation that describes the formation of element **F**:

.....

d) i) What has been oxidised?

ii) What has been reduced?

e) i) What is the oxidising agent?

ii) What is the reducing agent?

Question 6 (Advanced):

a) For reaction **P**, write the ionic half-equation that describes the formation of $\text{SO}_3^{2-}(\text{aq})$:

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b) For reaction **P**, write the ionic half-equation that describes the formation of $\text{CO}_2(\text{g})$:

.....

c) Combine your answers to **6 a)** and **6 b)** together and hence write the overall ionic equation to describe reaction **P**:

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- Click on the QR code given below to view the answers to this assignment.



http://www.chemist.sg/electro_chem/electro_chem_and_qa/electro_chem_qa_1_ans.pdf