CHEMISTRY

BOOKS - OSWAAL PUBLICATION CHEMISTRY (KANNADA ENGLISH)

GENERAL PRINCIPLES AND PROCESSES OF ISOLATION OF ELEMENTS

Topic 1 Very Short Answer Type Questions

1. Name the method used for refining of zirconium.

Watch Video Solution

2. Metals having low melting point are refined by....

Watch Video Solution

3. Which type of ore is concentrated by froth-floatation?

Watch Video Solution

4. Name the process usually employed for the purifacation of -Nickel.

Watch Video Solution

5. Name the refining method used to produce semiconductors.

Watch Video Solution

6. Name the principle involved in the desilverisation of lead by Parke's process.

Watch Video Solution

7. What is metallic bond?

Watch Video Solution

8. What are the minerals?

Watch Video Solution

9. What are ores?

Watch Video Solution

10. What is meant by pyrometllurgy?

Watch Video Solution

11. What is electrometallurgy?

Watch Video Solution

12. What is liquation?

Watch Video Solution

13. Name one method for the refining of zinc or spelter.

Watch Video Solution

Topic 1 Short Answer Type Questions

1. With the help of Ellingham diagram explain why silver oxide can be decomposed at a relatively lower temperature.

Watch Video Solution

2. Draw the Ellingham diagram for the formation of carbon monoxide with the increase in temperature?

Watch Video Solution

3. Giving examples differentiate between 'roasting' and 'calcination'

Watch Video Solution

4. What should be the considerations during the extraction of metals by electrochemical method?

Watch Video Solution

5. What is the role of flux in metallurgical processes?

Watch Video Solution

6. How are the metals used as semiconductor, refined? What is the principle of the method used?

Watch Video Solution

7. What is slag?

Watch Video Solution

8. Copper can be extracted by hydrometallurgy but not zinc. Explain.

Watch Video Solution

9. What is the role of depressant (NaCN) in Froth-Flotation method?

Watch Video Solution

10. Explain with equation Van-Arkel method for refining of zircnium.

Watch Video Solution

Topic 1 Long Answer Type Questions I

1. On the basis of Ellingham's diagram explain the principle of extraction of iron from its oxide ore.

Watch Video Solution

2. Explain with equation Van-Arkel method for refining of zircnium.

Watch Video Solution

3. Describe parke's process of desilverisation of lead.

Watch Video Solution

4. Outline the principles of refining metals by the following methods :

(i) Zone refining

(ii) Electrolytic refining

(iii) Vapour phase refining

Watch Video Solution

5. Differentiate between 'minerals' and 'ores'.

Watch Video Solution

6. Explain hydraulic washing used for ore concentration.

Watch Video Solution

7. How is cast iron different form pig iron?

Watch Video Solution

Topic 2 Very Short Answer Type Questions

1. The composition of .copper matte. is,

Watch Video Solution

2. Name the depressant used in separation of ZnS from PbS by froth floatation process.

Watch Video Solution

3. What is the role of lime stone in the extraction of iron from the concentrated

hematite ore ?

Watch Video Solution

4. What is meant by matrix?

Watch Video Solution

5. What is slag?

Watch Video Solution

6. Name the slag formed in the extraction of iron/copper.

Watch Video Solution

7. Name a metal which can be obtained by pyrometallurgy / hydrometallurgy / electrometallurgy.

Watch Video Solution

8. Give one important ore of aluminium.

Watch Video Solution

9. Name the calcium salt formed in the blast furnace during smelting of haematite ore.

Watch Video Solution

10. What is the percentage of carbon in : cast iron, wrought iron and steel?

Watch Video Solution

11. What type of ore are roasted?

Watch Video Solution

12. Name the reducing agent uses in alumino thermite process.

Watch Video Solution

13. Give the formula of (a) haematite (b) magnetite.

Watch Video Solution

14. Name the method by which Na, K, Mg and Al Can be extracted.

Watch Video Solution

15. Name the metal present in (a) chlorophyll (b) haemoglobin.

Watch Video Solution

16. Name the element present in sea-weeds.

Watch Video Solution

17. Give the composition of dolomite.

Watch Video Solution

18. State the role of silica in the metallurgy of Copper.

Watch Video Solution

Topic 2 Short Answer Type Question I

1. Suggest any two methods to prevent corrosion of iron.

Watch Video Solution

2. What is the role of lime stone and coke in the extraction of iron using blast furnace?

Watch Video Solution

3. Give reasons :

(i) Copper displaces silver from silver nitrate solution.

Watch Video Solution

4. Give reason : Copper is more electro positive than silver.

Watch Video Solution

5. Copper is a stronger reducing agent than silver.

6. SRP of copper is less than that for silver.

7. Iron pipe are usually coated with zinc.

8. With the help of Ellingham diagram, explain why Al can reduce MgO at high temperature.

Watch Video Solution

9. Why copper matte is put in silica lined converter?

Watch Video Solution

10. What is the role of cryolite in the metallurgy of aluminium?

Watch Video Solution

11. Give any three uses of copper.

Watch Video Solution

12. Give any two uses of zinc.

Watch Video Solution

13. How is wrought iron prepared from cast iron?

Watch Video Solution

14. Give any two uses of iron.

Watch Video Solution

15. Explain the extraction of zinc from zinc oxide or from zinc blende (ZnS).

Watch Video Solution

Topic 2 Long Answer Type Questions I

1. How copper is refined by electrolytic method?

Watch Video Solution

2. How is pure alumina obtained from bauxite by leaching process.

Watch Video Solution

3. Describe the three steps involved in the leaching of bauxite to get pure alumina (equations not expected).

Watch Video Solution

4. In the extraction of Aluminium by Hall-Herault process:

Give the equation of overall cell reaction.

Watch Video Solution

5. (a) Name the reducing agent used in the extraction of zinc oxide. Give the equation.

(b) What is the principle involved in zone refining of metals?

Watch Video Solution

6. Draw labelled diagram of Hall-Heroult electrolytic cell for the extraction of aluminium write anode and cathode reactions.

Watch Video Solution

7. (i) Draw a neat labelled diagram of blast furnace used for the extraction of iron and mention different zones.

(ii) What is the role of coke and lime stone during the extraction of cast iron?

Watch Video Solution

8. (a) Write chemical reactions taking place in the blast furnace at reduction zone, slag formation zone and combustion zone during the extraction of Iron.

Watch Video Solution

9. Draw Ellingham diagram $[\Delta G^{\circ} V s T]$ for the oxidation of carbon monoxide and for the

formation of Fe_2O_3 and CO. Suggest suitable reducing agents for the reduction of Fe_2O_3 at a temperature below 983 K $(710^\circ C)$ and at a temperature above 983 K.

Watch Video Solution

10. Draw a neat diagram of blast furnance and describe and describe the reaction that occurs during extraction of cast iron in furnace at.

(i) $600^\circ C$

(ii) $900^\circ C - 1000^\circ C$.

Watch Video Solution

11. State the role of silica in the metallurgy of Copper.

Watch Video Solution

12. The value of $\Delta_f G^\circ$ for formation Cr_2O_3 is -540 kJ mol^{-1} and that of Al_2O_3 is -827 kJ mol^{-1}. Is the reduction of Cr_2O_3 possible with aluminium?

Watch Video Solution

13. The choice of a reducing agent in a particular case depends on thermodynamic factor. How far do you agree with this statement? Support your opinion with example.

Watch Video Solution

Topic 2 Long Answer Type Questions Ii

1. Predict conditions under which Al might be expected to reduce MgO.

Watch Video Solution

2. How is the aluminium extracted from bauxite.

Watch Video Solution