

General Principles and Processes of Isolation of Metals

Set – 1

Table 6.1: Principal Ores of Some Important Metals

Metal	Ores	Composition
Aluminium	Bauxite	$\text{AlO}_x(\text{OH})_{3-2x}$ [where $0 < x < 1$]
	Kaolinite (a form of clay)	$[\text{Al}_2(\text{OH})_4\text{Si}_2\text{O}_5]$
Iron	Haematite	Fe_2O_3
	Magnetite	Fe_3O_4
	Siderite	FeCO_3
	Iron pyrites	FeS_2
Copper	Copper pyrites	CuFeS_2
	Malachite	$\text{CuCO}_3 \cdot \text{Cu}(\text{OH})_2$
	Cuprite	Cu_2O
	Copper glance	Cu_2S
Zinc	Zinc blende or Sphalerite	ZnS
	Calamine	ZnCO_3
	Zincite	ZnO

Q1. Kaolinite is an ore of:

- A. Aluminium
- B. Iron
- C. Copper
- D. Zinc

Ans. (A)

Q2. Fe_2O_3 is also known as:

- A. Haematite
- B. Magnetite
- C. Siderite
- D. Sphalerite

Ans. (A)



Q3. Which of the following is not a sulphide ore?

- A. opper pyrites
- B. Copper glance
- C. Zinc blende
- D. Siderite

Ans. (D)

Q4. Calamine is an ore of :

- A. Copper
- B. Gold
- C. Iron
- D. Zinc

Ans. (D)

Q5. $\text{CuCO}_3 \cdot \text{Cu}(\text{OH})_2$ is also known as:

- A. Copper pyrites
- B. Malachite
- C. Cuprite
- D. Siderite

Ans. (B)

Q6. Which of the following is not a carbonate ore?

- A. Bauxite
- B. Siderite
- C. Malachite
- D. Calamine

Ans. (A)

Q7. Which of the following is a sulphide ore?

- A. Haematite
- B. Magnetite
- C. Siderite
- D. Iron pyrites



Ans. (D)

Q8. Zincite is an _____ ore.

- A. Halide
- B. Oxide
- C. Sulphide
- D. carbonate

Ans. (B)

9. Which of the following is an oxide ore?

- A. Copper pyrites
- B. Malachite
- C. Cuprite
- D. Copper glance

Ans. (C)

10. Bauxite is an ore of:

- A. Gold
- B. Copper
- C. Aluminium
- D. Zinc

Ans. (C)

11. CuFeS_2 is primarily an ore of:

- A. Iron
- B. Copper
- C. Sulphur
- D. None of the above

Ans. (B)



Set – 2

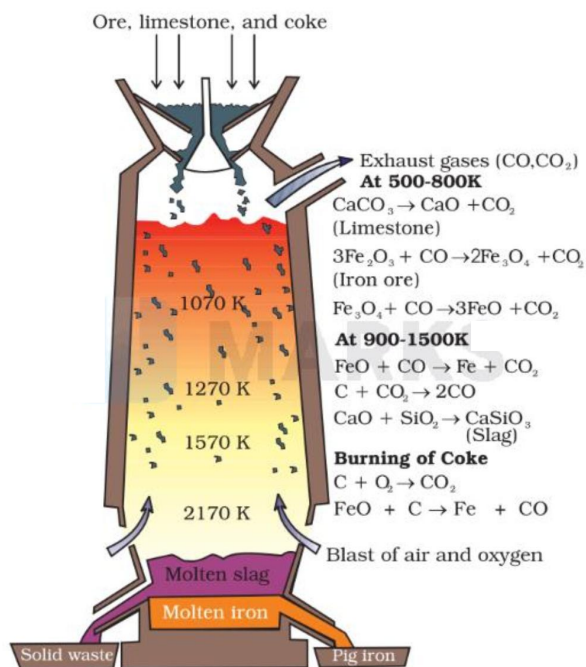


Fig. 6.5: Blast furnace

Q1. What are the gaseous products released by blast furnaces?

- A. CO, SO_2
- B. CO, CO_2
- C. $\text{CO}_2, \text{SiO}_2$
- D. CO, SiO_2

Ans. (B)

Q2. What is the temperature of the hottest region?

- A. 2170 K
- B. 3120K
- C. 1250 K
- D. None of the above

Ans. (A)



Q3. What is the final product of blast furnace?

- A. Wrought Iron
- B. Pig Iron
- C. Molten Iron
- D. All of these

Ans. (B)

Q4. Fe_3O_4 reduces to-

- A. Fe_2O_3
- B. FeO
- C. Fe
- D. None of the above

Ans. (B)