

10%
Metallurgy
Session 3

Migma Tshering

Learning Objectives

4 Steps to extract metals

❖ *1st and 2nd Steps*

Step 1

to Extract Metals

Step 1: Dressing of Ores

a. Hand Picking

b. Crushing and Grinding of Ore

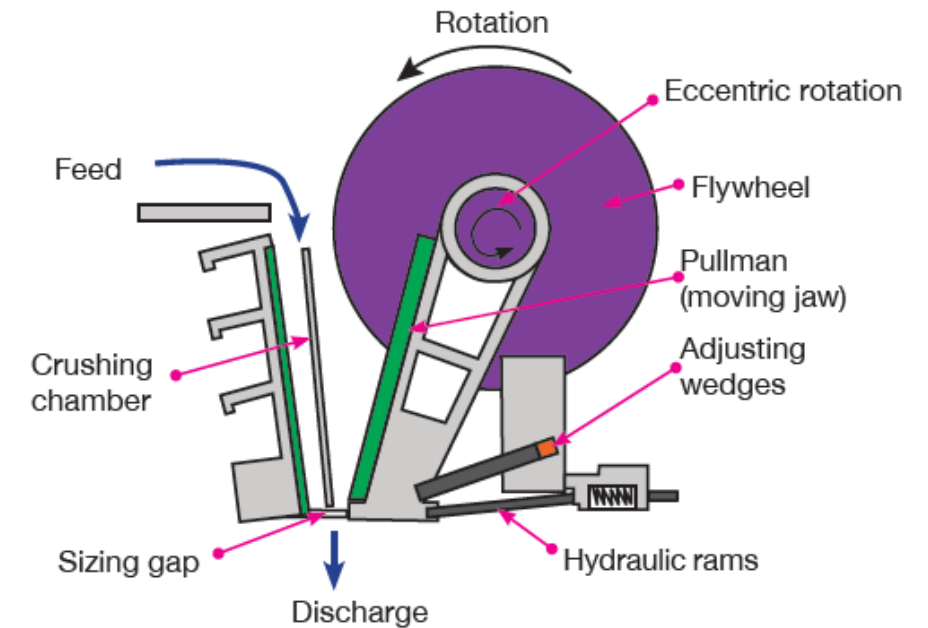


Figure 3.2 Jaw crusher.

Step 2

to Extract Metals

Step 2: Concentration of Ores

- a. Froth Floatation Process**
- b. Gravity Separation or Levitation**
- c. Magnetic Separation**
- d. Leaching**

Step 2: Concentration of Ores: i. Froth Floatation Process

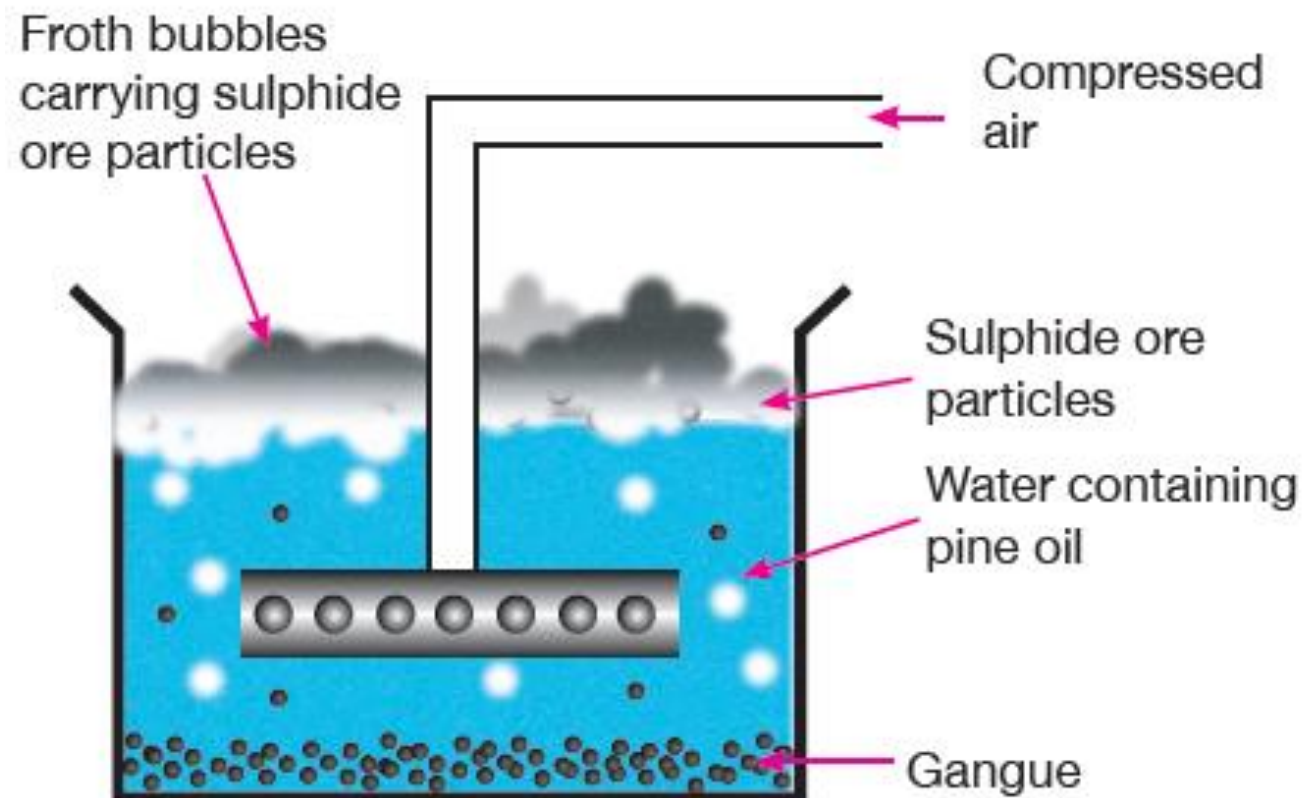


Figure 3.4 Froth floatation.

Step 2: Concentration of Ores: ii. Gravity Separation or Levitation

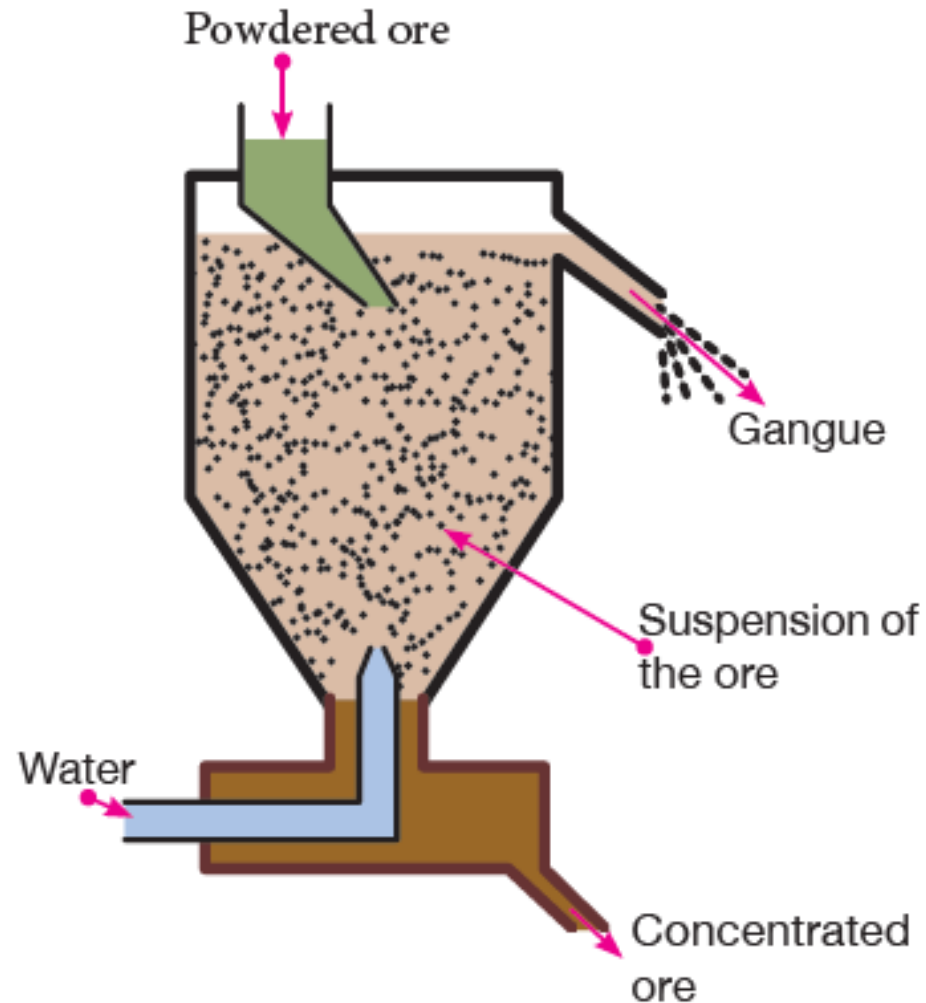


Figure 3.5 Hydraulic classifier.

Step 2: Concentration of Ores: ii. Gravity Separation or Levitation

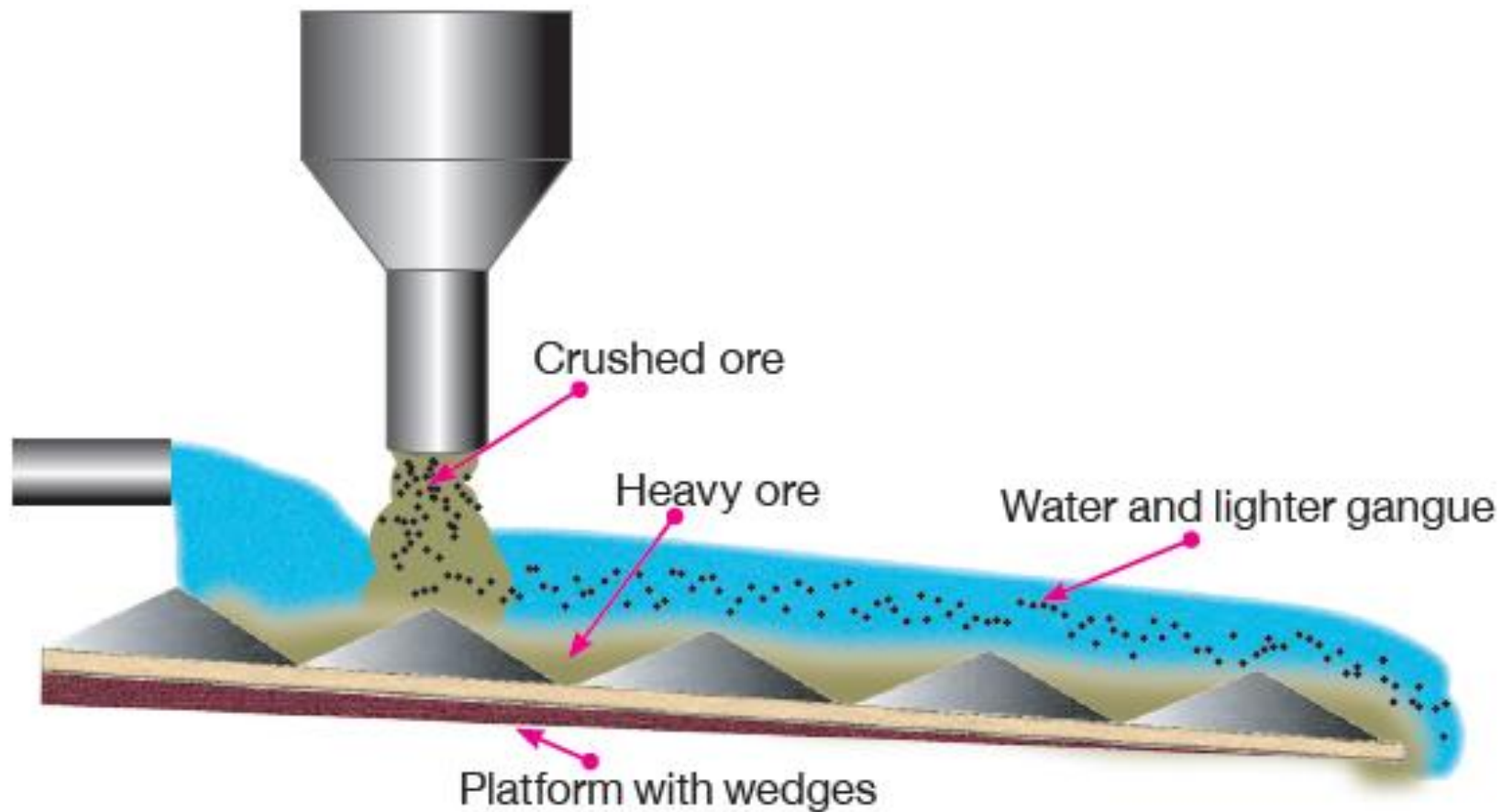


Figure 3.6 Wilfley washing table.

a. Step 2: Concentration of Ores: iii. Magnetic Separation

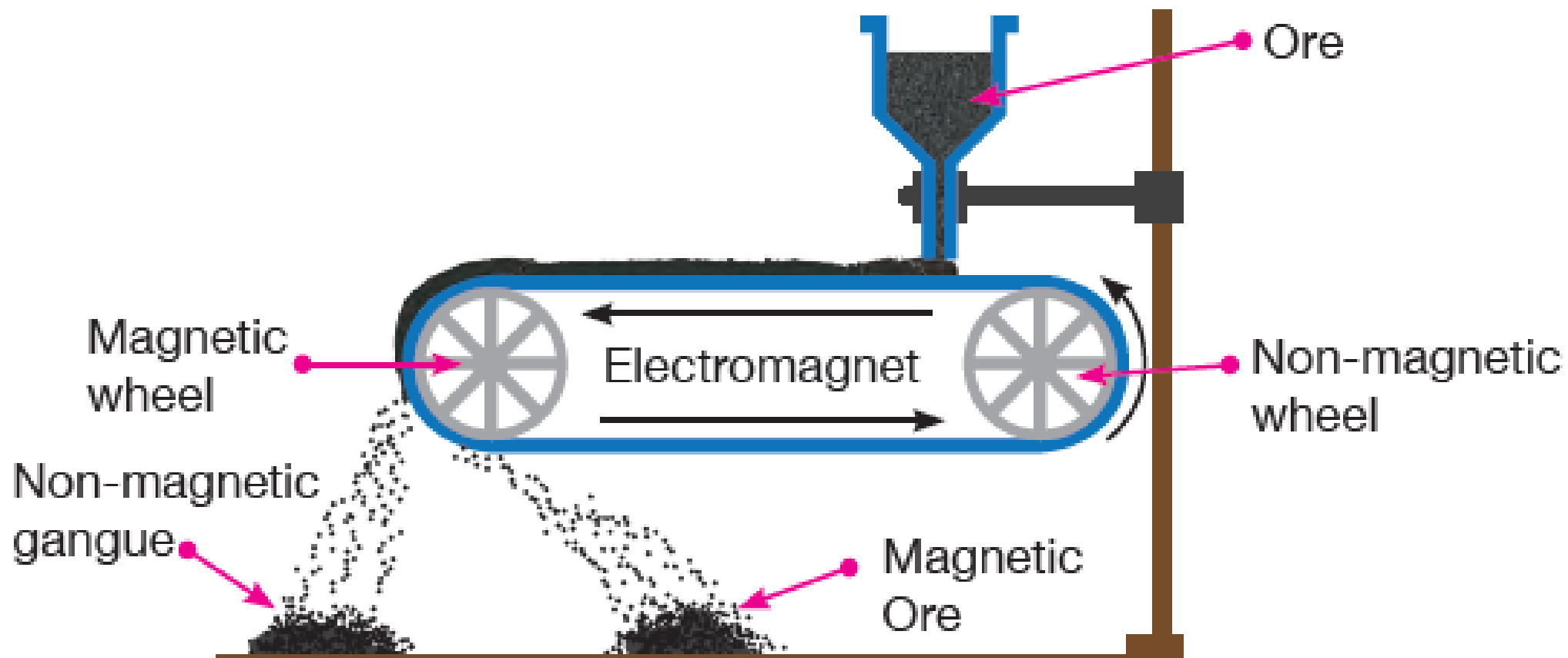
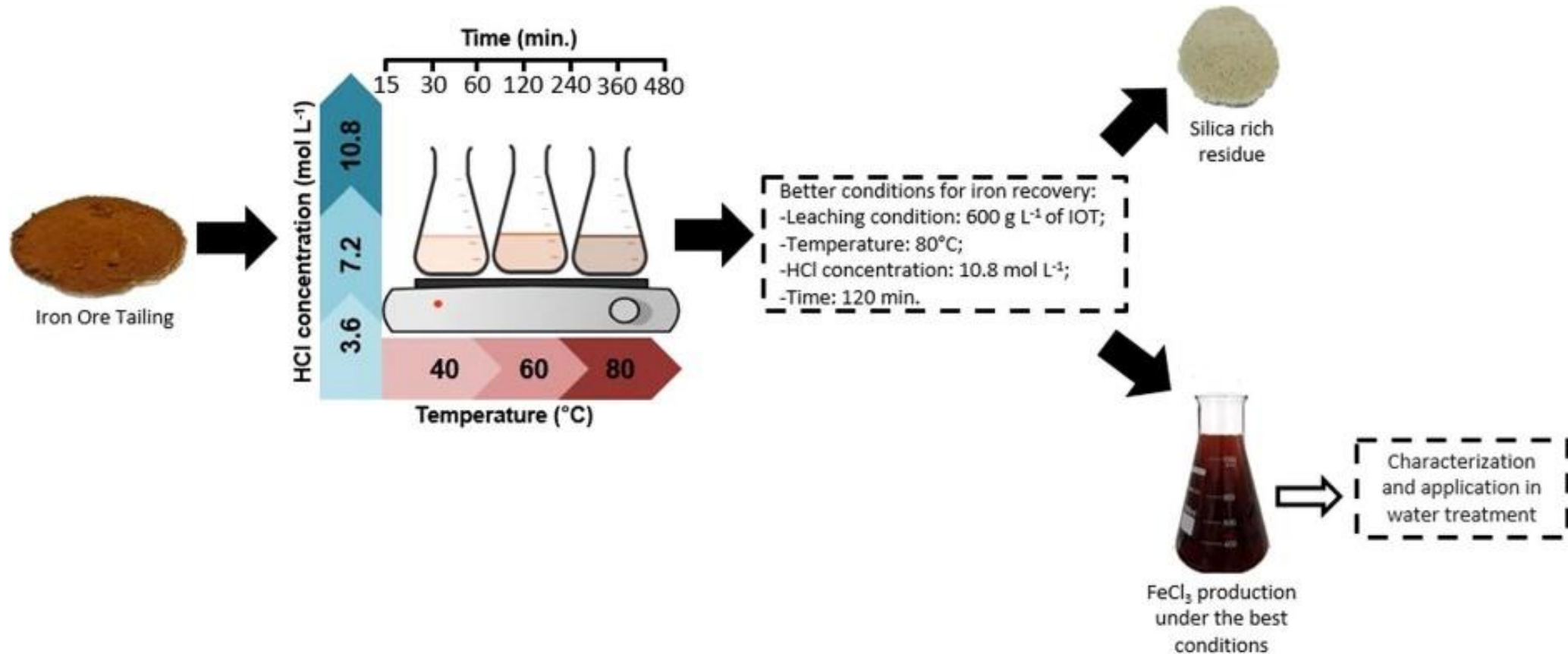


Figure 3.7 Magnetic separator

a. Step 2: Concentration of Ores: iv. Leaching



Step 1: Dressing of Ores

a. Hand Picking

b. Crushing and Grinding of Ore

Step 2: Concentration of Ores

- a. Froth Floatation Process**
- b. Gravity Separation or Levitation**
- c. Magnetic Separation**
- d. Leaching**

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