

Extraction of Metals :-

K

Na

Li

Ca

Al] electrolysis Al_2O_3

C, CO

reduction
by C, CO
'blast furnace'
furnace

[Zn] \rightarrow zinc blende ZnS not included

[Fe] Hematite Fe_2O_3

Pb

H

Cu] Reduction by ' H_2 ' not included

Ag

Au

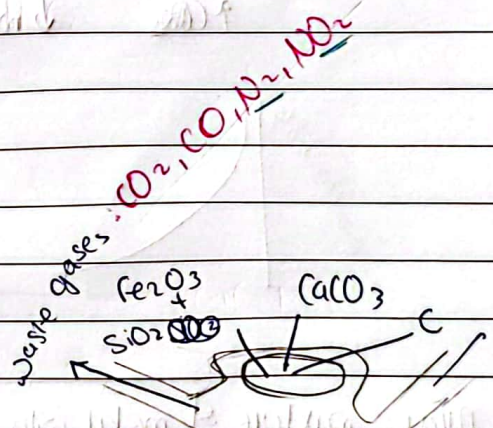
Pt

* Extraction of iron :-

ore : Fe_2O_3 "Hematite"

method : reduction by C, CO

place : blast furnace

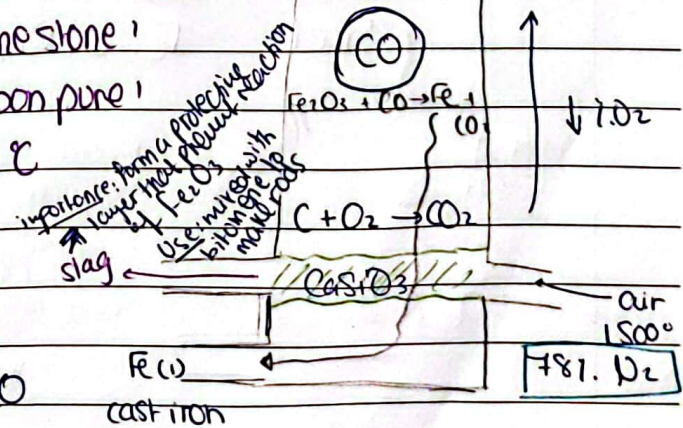


Raw material : Fe_2O_3 mixed with

$CaCO_3$ 'limestone'

coke 'carbon pure'

air $1500^\circ C$



redox
redox

complete combustion: $C + O_2 \rightarrow CO_2$

incomplete " : $2C + O_2 \rightarrow 2CO$

$CO_2 + C \rightarrow 2CO$

redox $Fe_2O_3 + 3CO \rightarrow 2Fe + 3CO_2$